



UPDATE FEBRUARY 2020

WHAT HAPPENED TO FRANCIS ROSE'S FLORA OF KENT?

Photo by Owen Davis

This Flora reconstruction began with transcribing copies of fragments of the manuscript from various sources. However, since then, three of the four volumes of the original manuscript for the species accounts have come to light, and it has been possible to pursue a more complete transcription. This transcription begins with a surviving section from the missing first volume which Francis Rose revised quite fully, and then continues with the fragments (which will be eventually be replaced by a full version where subsisting). At present, the fourth and last volume (Monocotyledons) is given here as a complete transcription, and further work has begun with *Viola* in the second volume.

WHAT HAPPENED TO FRANCIS ROSE'S FLORA OF KENT?

Between the Victoria County History (1908) account of the Kent Flora by E.S. Marshall (which may be regarded as a summary of the Flora of Kent (1899) by Hanbury and Marshall) and the Atlas of the Kent Flora (1982) by Eric Philp, there is a long gap without an overview of the Kent Flora. This gap would have been filled by Francis's Rose's Flora of Kent, but this work was never published and the manuscript only came to light some years after his death, in 2006. Even then, the surviving manuscript is incomplete.

In consequence, we have had no published full county Flora which deals with the transformation from Victorian Kent - a period of major habitat changes in the countryside with increased mechanisation in agriculture; the beginnings of use of herbicides in quantity; the extension of cultivation in wartime and subsequent abandonment; and the effects of development generally, tempered by the introduction of town and country planning. Francis Rose undertook very extensive botanising in the 1940s, when there were still many areas of habitat with native flora which have since disappeared. However, although some record of these is maintained through his herbarium specimens (some 10,000), since absorbed into the Maidstone Museum herbarium, the unpublished status of the Flora means that we have been deprived of the benefit of the views of an ecologist of considerable national standing. The Flora would have been of much more than just county significance; and we lack the acuity of many of his observations which would have been contained in it as regards the occurrence and distribution of species, their relationship to ecological factors and their wider significance in terms of the British and Continental flora.

What can be reconstructed of the Flora is given below.

The writing of the Flora and its disappearance

Francis Rose would have been the person to provide Kent's Flora: 'I know Kent intimately – I have done much work there from my youth (first field trip 1936!) and I lived there for 28 years, more or less, from 1941-1969. So I have a vast background of knowledge on Kent"¹. However, the project was begun before all this knowledge had accumulated, when he was only 20. In 1949, Francis Rose gave an address to the Botanical Section of the South-Eastern Union of Scientific Societies at the 1949 Congress at Canterbury. He said:

'since 1942 I have been engaged with Mr. J.B. Marshall and others too numerous to mention here, on the preparation of a new County Flora of Kent.....It was hoped at one time to complete the Flora in time for the Canterbury Congress, but this proved quite impossible. Help is earnestly requested from everyone interested in the subject who can supply information on Kentish botany, whether past or present, from any aspect. The flora is intended to be ecological in approach, with an emphasis on the details of plant distribution considered scientifically. There will be a series of descriptive ecological articles on the various botanical districts of the county, in which typical areas of different vegetation types, such as heaths, downs, woodlands, etc., will be considered in detail. It is hoped to illustrate the Flora with about forty half-tone photographic plates of vegetation, and of interesting Kentish plants in their natural surroundings. It is not possible to give definite figures yet as to price or date of publication, but it is hoped to keep the price down to about two pounds or

¹ *In litt.* to Rosemary FitzGerald, 15 May 1985.

less by eliminating much material often included in local floras which is of interest only to very few people, such as very detailed historical notes, and excessive detail on critical groups.

It is hoped, too, to publish within three years from now.'

These aspirations proved to be optimistic in the extreme. Although by 1950 there had been contact with printers, some of the distribution maps had been prepared², the dots being 'sketched as accurately as can be judged by eye from the one-inch Ordnance survey map', fieldwork was still in progress. However, in 1954, he considered that fieldwork was almost complete, and that the manuscript might be ready for the press by about 1955; and, indeed, in that year he was outlining publication proposals and describing some of the interesting features of plant distribution and preferences which had been revealed in the course of Flora preparation³. Nevertheless, by 1960⁴, he could only say that the manuscript was, after many delays, about half completed. In 1963, subscription forms were being issued. Subscribers were essential, due to the absence of any capital for immediate payment for printing (other than £200 from Kent Field Club, who were to act as joint publishers and the prospect of a grant from the Royal Society). Advanced discussions with T. Buncle & Co. as printers seem to have fallen by the wayside in July 1963; he was also corresponding with Kent Arms Printing Works who provided sample proofs; and later that year an approach to the Ray Society to publish came to nothing. Work on the Flora, however, continued and in the mid-1960s, he was sending out 'wants lists' for 10km Ordnance survey squares, generating much correspondence over incoming records.

The mapping aspects were clearly on his mind, with progress shown at the 1965 BSBI annual exhibition meeting which he illustrated with *Cardamine bulbifera*, *Caltha palustris*, *Cardamine pratensis*, *Cardamine amara*, *Agropyron caninum*, *Paris quadrifolia*, *Allium ursinum* and *Anemone nemorosa*.⁵ By 1966, he is quoted⁶ as being in the process of reducing the book – then running to nearly 1,000 pages – to 600 pages, although surviving papers do not show evidence of this. It was always going to be a problem reducing the amount of material which had been assembled. Ted Lousley wrote (in litt., 1963), when approached for suggestions as regards covering aliens: 'The difficulty, as I see it, is that your Flora will run to an immense book with the material you have already. If you take maps and diagrams in the text into account, I would be very surprised if you can get it into 550 pages, while if you cut down the Flora proper by much it will cease to serve its purpose'. Peter Wilberforce remembers being shown the manuscript in Francis Rose's work room in the late 1960s: 'This consisted of thousands of foolscap sheets with hand-written notes scattered all over the place, together with herbarium sheets. To me it was in total chaos, but Francis seemed to know where everything was!'

In 1969, the Rose family moved to live at Liss in Hampshire, which would not have incentivised completion of the Kent project, quite apart from the distraction of Francis Rose's prodigious production of papers and contributions to publications on other subjects which he continued to sustain. Around that time the first steps were being taken by Eric Philp and the Kent Field Club towards production of an Atlas of the Kent Flora based on tetrad mapping and this was published in 1982. Eric Philp renewed surveying in 1991 and this developed towards the production of a second Atlas (the surveying period closed in 2005, and publication took place in 2010). It was therefore awkward in some respects that the prospect of completion of Francis Rose's Flora arose at the same time, although the two Floras would have been very different, and in some respects complementary – the Atlas being a survey directed towards tetrad mapping with relatively little species

² Rose, F., Distribution maps of Kent Plants (Exhibit), in Lousley, J., ed. (1951) *The Study of the Distribution of British Plants* (1950 conference report), B.S.B.I, Arbroath

³ Rose, F. (1955). The New Flora of Kent. Presidential address to the Botanical Section. *The South-eastern Naturalist and Antiquary* **60**: 9-19.

⁴ Rose, F. (1960). Botanical records for Kent, 1955-58 – Vascular Plants. *Transactions of the Kent Field Club* **1**(2): 56-65.

⁵ Distribution maps of Kent plants, in Dony, J.G. (1966). Exhibition Meeting, 1965. *Proceedings of the Botanical Society of the British Isles* **6**: 279-281.

⁶ Unsourced newspaper cutting.

comment, but including all aliens; while Francis Rose's Flora would have been more ecological in scope, with vegetation studies and examination of significant species at greater length. There had been many other projects to engage his attention, not least in that between 1985 and 1995 the preparation of a Hampshire Flora gathered pace, and Francis Rose was one of the three principal authors. In 1986, he wrote to Rosemary FitzGerald that 'I have a manuscript flora of Kent (which I intend to use for a book – much abridged – when other more urgent jobs are completed)...It occupies four looseleaf foolscap files!'.

By the late 1990s, he was seriously considering the revival of the Kent Flora. He began working on the manuscript again and secured the help of Owen Davis in having it typed up. Supposedly, the Introduction was put into type (although this has not been found) and a start was made on revising the main part of the Flora, the species accounts. These in their original manuscript form have a feel of a 1940s/1950s Flora, and Francis Rose evidently took much trouble over revising in conjunction with the typing up: many of the records in the manuscript were jettisoned, particularly for more common species, in favour of a more stream-lined approach. Although he had visited Kent on many occasions since moving to Hampshire, he recognised the need to update as regards current distributional status, particularly where plants recorded at old sites had not been seen for many years but there was a prospect of their survival. He accordingly circulated to Kent botanists in 2000 a list of plants and sites for following up. This resulted in more current data becoming available. However, the typing arrangements with Owen Davis were discontinued, in order to reduce the complications of liaison over a distance as regards typing and corrections; and it was intended that Francis Rose would obtain help nearer home. He died in 2006, and nothing has been found which demonstrates that the updating continued after 2000.

It was then believed that the Flora was missing, perhaps lost. After an initial attempt to reconstruct the Flora was undertaken from copies of some of the species accounts which had been made during Francis Rose's lifetime, it was found that much of the original manuscript still survived. It had not followed his main written archive, which had been deposited with the National Museum of Wales, but had remained in his study where two of the four folders of species accounts were found in 2017 by David Streeter and Andrew Rose; a third folder was located by Anna Rose in 2019. All in all, nearly 90% of the species accounts are extant. The earlier sections of the Flora, essays on the characteristics of the vegetation of the county, have not been traced other than a few skeletal draft elements; although they are largely covered by papers published by Francis Rose 1946-72. The surviving manuscript and its related revisions and copies are described below ('the remaining species accounts').

The planned contents of the Flora

"Kent is still one of the loveliest of the English counties, with a variety of scenery and wild life unique in the British Isles. Its flora is remarkably rich, both in number of species and in interesting plants. On a conservative estimate, Kent has still 1,200 species of native or established vascular plants; only Hampshire and Sussex have more. This total includes 30 species of orchids (only Hants. and Oxford have as many) and eight of our ten British broomrapes."⁷

The Flora was planned to be some 550 pages long, with an emphasis on ecological and historical aspects, and a three-page synopsis was circulated from time to time over many years⁸. From this, we have a clear understanding of what it would have covered.

After a preface with acknowledgements, the **introduction** was to set out the scope of the Flora and contain sections on the county and vice-county boundaries with some statistics⁹; on climate; on the geology and

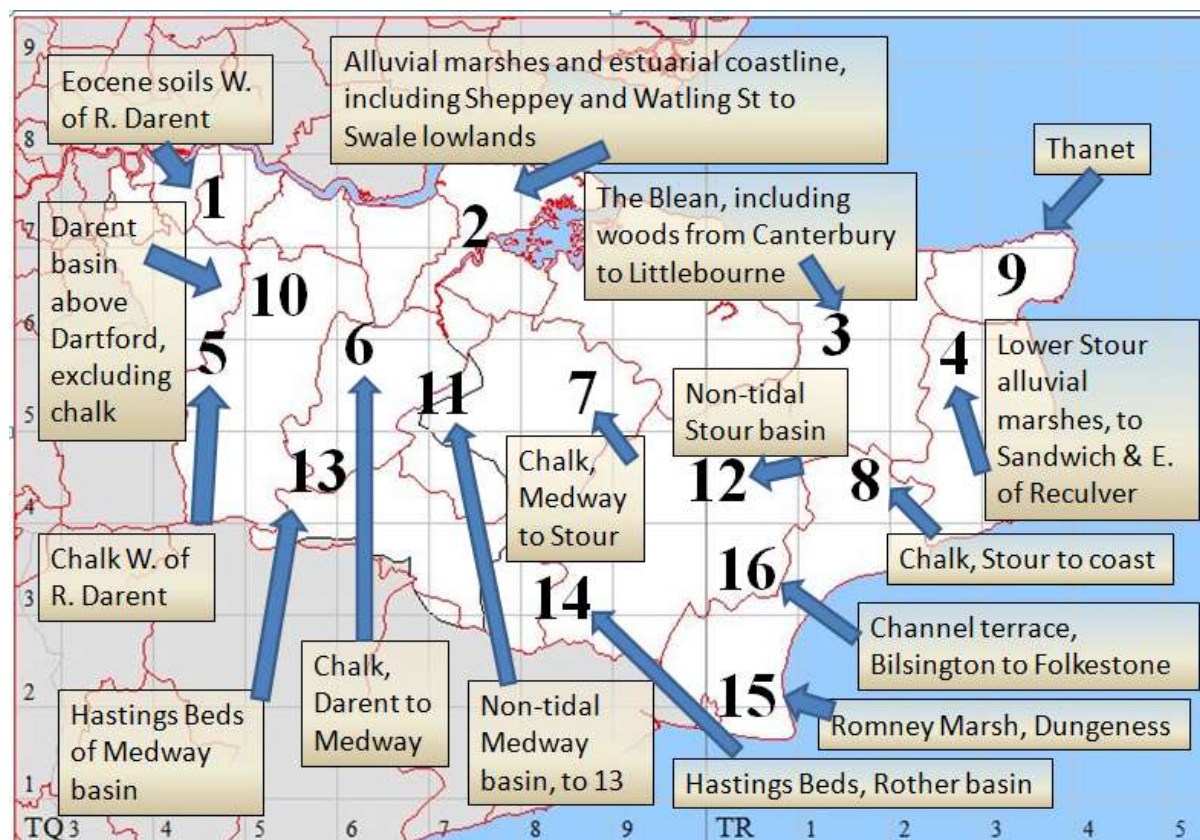
⁷ Rose, F. (Autumn 1962): The Naturalists' Trusts: No. 1 The Kent Naturalists' Trust Ltd. *Countryside, the Journal of the British Naturalists' Association*.

⁸ Retyped by Owen Davis c.2000 with changes made then by Francis Rose, which are reflected in the following description.

geomorphology of Kent; and on its soils. There was to be a brief historical sketch of earlier work on the Kent flora (apparently not to the same depth as had been undertaken in the 1899 Flora).

The Flora was then to contain a description, with boundaries, of 16 **botanical districts** based on natural regions of Kent, with some statistics of each district. This was a standard method of dealing with accounts of plant distribution before detailed mapping against overlays of geology or habitat types became the norm: the 1899 Flora has ten districts based on geology.

Botanical Districts



The identity of the 16 botanical districts is likely to have been as indicated in the reconstruction above¹⁰, namely **(1)** the Eocene soils of north-west Kent, west of the River Darent; **(2)** the alluvial marshes and coastline

⁹ A note by FR with the Flora papers shows some gathering of statistics: 'Kent ninth largest county, nearly 1,000,000 acres, 1,555 sq miles...N. Foreland - London 64 miles, N. Foreland-Dungeness -38 miles...[1947] 144,300 acres Woodland, 8,300 F[orestry] C[ommission], 136,000 private: 29,000 hardwood high forest: 7000 conifer high forest, 8000 mixed, 69,000 coppice or c[oppice] w[ith] s[tandards].'

¹⁰ These are the same districts as given in Rose, F. (1949). A Bryophyte Flora of Kent I, *Transactions of the British Bryological Society*, **1**(3): 202-210. They are also given in a notebook (c. 1946-8) associated with the MS Flora papers together with lists of special vascular plant species for each district, under the following names: **(1)** The Metropolitan District, **(2)** The Thames-Medway Estuary, **(3)** The Blean, **(4)** Stour Marsh, **(5)** Chalk W. of Darent, **(6)** Darent-Medway Chalk and other Hills (6E), **(7)** Medway-Stour Chalk, **(8)** Stour-Channel Chalk, **(9)** Thanet, **(10)** Darent Basin, **(11)** Medway Wealden Basin, **(12)** Stour Wealden Basin, **(13)** High Weald of Medway, **(14)** Rother High Weald, **(15)** Romney Marsh, **(16)** Channel Terrace. These districts had to be decided upon before the MS Flora was begun to be assembled, as this is laid out with records under each species set in their relevant district. While the district names are reasonably descriptive, detailed boundaries are given for some in the Flora notebook.

The Metropolitan District is defined as follows: N.— the Thames from Deptford to Crossness. E. — Lessness Manor Way (L.C.C. b[oun]d[ar]y) to Abbey Woods Sta[tion]. — N. Kent Line to Crayford Mills: up to Met-Vickers to leave out Barnes Cray Marshes: Down to join A.206 on E. side of Marsh: by A.206 to Bull Hotel, Dartford: by A225 to "the Folly", Farningham: by track to W for ¼ m. And S.E. edge of Farningham Wood and Orchard to Farningham Hill Farm: by A.20 to Swanley.... by B.258 to Crockenhill: by road to Skeet Hill and Well Hill: by E. edge of Hollows Wood to join Timberden Lane at 550627: due S. 200yds, then: S. — W. for ½ m. along S. wood edge to A.224 at Badger's Mount: by A224 to Chelsfield Ch[urch]: to Gillmans Brimstone —to Worldsend and Green St[reet] Green: to Farnboro' by A21

of the estuaries of the Thames and Medway, including the Isle of Sheppey and the lowlands between Watling Street and the Swale; **(3)** the wooded Eocene country north and east of Canterbury, usually known as the Blean, including the woods east of Canterbury as far as the Little Stour Valley at Littlebourne; **(4)** the alluvial marshes of the lower Stour from Canterbury to the coast at Sandwich and east of Reculver; **(5)** the Chalk west of the Darent; **(6)** the Chalk between Darent and Medway (in some cases a separation of the eastern element was recognised: **(6E)**); **(7)** the Chalk between Medway and Stour; **(8)** the Chalk between the Stour and the coast; **(9)** the Isle of Thanet; **(10)** the Darent basin above Dartford (excluding the chalk); **(11)** the basin of the non-tidal Medway, as far south as the northern edge of the Hastings Beds; **(12)** the basin of the non-tidal Stour, above Canterbury; **(13)** the Hastings Beds of the Medway Basin (the Forest Ridge); **(14)** the Hastings Beds of the Rother Basin about Tenterden; **(15)** Romney Marsh (including Dungeness); and **(16)** the channel terrace, draining to the Channel, from Bilsington to Folkestone. The numbers of botanical districts are used in the species accounts, in order to group records together. The reconstruction is set on a map with current local authority boundaries. No map has yet been found with Francis Rose's district boundaries superimposed, but the accompanying sketch of the eastern district boundaries is taken from one of his notebooks



From that notebook, comments on the botanical districts would have included (although needing to be updated in nomenclature and plant occurrences):

(1) 2nd for heath plants – the light soils near London. Soil: Eocene sands, clays, gravels, alluvium. Best localities: Keston Common; Hayes Common; Chislehurst Common; Dartford Heath; Farningham Wood; N. of Bickley; SE of Bickley; Petts Wood – St Pauls Cray Common; Holwood Park. [Special plants listed, species confined to (1) were *Myrica gale*; *Scirpus caespitosus*; *Filago apiculata*].

(2) Finest for brackish and saltmarsh flora – one of the best in Britain. Good localities: Strood (Rochester) (with obvious exceptions); round district (6) to Gravesend and Dartford. [Special plants listed, species confined to (2) were *Rumex palustris*, *Salvia verticillata*.]¹¹

and B2158: by path to Lower Hook: S. edge Holwood Park: Keston Church: lane NW to Baston Manor: Cony Hall: A232 and B268 to County Boundary.

The Thames-Medway Estuary district is defined as follows: N: Thames from Cross Ness to Grain Jetty: NE coast of Sheppey: to where road meets coast ½ m W of Seasalter Church (by Post Office). E: Inland to A.299: by A299 to Brenley Corner. S. by A.2 to Rainham Church: down to Station: thence by Railway to Gillingham Station: by A231 to Chatham Town Hall: by A.2 to Rochester Cathedral Gate: by Borstal Road to Wouldham Village: by River Road to Burham Church and Rose Cottage: to New Hythe ferry Path – Aylesford Friars: High Street: Forstal. Up river banks to Allington lock and back to Little Preston: by Railway to New Hythe: up New Hythe and by path to Lunsford Lane: W — by A.228 to Ham Hill: by Marsh edge to Snodland: by A2286 to Holborough: by Railway to Strood (Rochester) (with obvious exceptions): round district (6) to Gravesend and Dartford.

The Blean district is defined as follows: N. — Sea from Seasalter Post Office to Reculver Towers: W. — Kent Coast Road from Brenley corner to Seasalter, then NW by road to sea: S. — by road through Boughton Church to Upper Ensign — from there by a track N. of Chalk to A28 ½ m W of Chartham (where cliffs meet the road). By A.28 from ½ m W of Chartham to Milton Bridge — by Southern Railway to E. of Chisle. E — Edge of the Upland from Reculver Towers by Chisle to the Southern Railway; thence to Canterbury.

Stour Marsh district is defined as follows: N. Boundary, sea from Reculver Towers to Minnis Bay cliffs: S. border of Thanet upland to the Sportsman. E. — The sea, from the Sportsman at Ebbsfleet to Oldstairs Bay: S. The cliff foot from there to Walmer Castle: The edge of the chalk from Walmer Castle to Canterbury. W. Edge of Upland to Canterbury and Wingham.

The Chalk W. of Darent district is defined as follows: S. Boundary — Pilgrims way, from Surrey boundary to W. of Otford. W. Boundary — Surrey Boundary to Wickham-Croydon Road. E. Boundary — Road on W. side of River Darent, to Farningham and ½ m N. The remaining districts are not defined in the notebook, but there is a sketch map of the eastern districts.

¹¹ An account of this botanical district was worked up in a notebook, but there is nothing comparable for other districts, so that it is unclear whether this was a pattern to be followed elsewhere. The text is as follows:

Does not look promising to an outside botanist. Purposely left out wider chalk, to show richness of area, history very long.

Districts (geological): 1) The alluvium marshes of the 2 estuaries: fresh, brackish and salt. 2) The Eocene Beds — Reading, Woolwich, Blackheath, London Clay — Woodland and heaths or dry common. 3) The chalk massif, N. of the great E-W valley.

1) a) The real Beach flora (Grain) — *Eryngium*, *Glaucium*, *Carduus tenuiflorus*, *Salsola*, *Cakile*, *Crithmum*, *Atriplex laciniata*, *Ammophila*, *Agropyron junceum*, *Cerastium tetrandum*, *Trifolium scabrum*.

b) Saltmarshes: very extensive: 3 kinds:

1) Coastal strip — *Salicornia perennis*, *Limonium*, *Inula crithmoides*, *Armeria*, *Obione*, sandips, narrow, dryish.

2) Mid Thames: *Limonium*, *Salicornias* of many kinds, *Obione*, *M. sicula* rare here (wider, muddy, with creeks, Aster).

3) Upper Thames. Aster and *Puccinellia*, *Festuca rubra*, smaller red *Salicornias*, *Triglochin*, no *Limonium*.

- (3) [Special plants listed, species confined to (3) comprised *Prunus padus*.]
- (4) Richest in county. Mainly in 3 first rate areas — The Dunes; Ham & Hacklinge Fen; Wingham Fen. Richest in species confined to it — finest for marsh and coast plants in county and in SE Eng[land]. [Special plants listed, species confined to (4) were *Potamogeton coloratus*, *Vulpia uniglumis*, *Carex extensa*, *Utricularia vulgaris*, *Tillaea muscosa*, *Juncus acutus*, *Parentucellia viscosa*, *Himantoglossum*, *Clematis flammula*, *Juncus compressus*.]
- (5) Fair only. [Special plants listed.]
- (6) Very rich in var[ieties] of chalk plants and others on overlying soils. [Special plants listed, species confined to (6) were *Althaea hirsuta*, *Silene italica*, *Ranunculus parviflorus*.]
- (7) Fair chalk flora - not distinctive. [Special plants listed, species confined to (7) comprised *Senecio campestris*.]
- (8) Div[isio]n of most interest, other than local — for splendid chalk and cliff flora. [Special plants listed, species confined to (8) were *Cirsium eriophorum*, *Euphorbia cyperissias*, *Thesium humifusum*, *Rubia peregrina*, *Brassica oleracea*, *Silene nutans* subsp. *smithiana*, *Ophrys arachnites*, *Epipactis leptochila*, *Rosa agrestis*, *Matthiola incana*.]
- (9) Poor. [Special plants listed, species confined to (9) comprised *Falcaria vulgaris*.]
- (10) Fair. [Special plants listed, species confined to (10) were *Potamogeton lintoni*.]
- (11) 1st inland waterways and dry heaths — finest woods on clay. [Special plants listed, species confined to (11) were *Arabis perfoliata*, *Oenanthe silaifolia*.]
- (12) Richest in variety of species and of greatest veg[eta]t[ion]al types — clay/sand, limestone, local interest. [Special plants listed, species confined to (12) were *Carex canescens*, *Orobancha major*.]

-
- c) Banks: *H[ordeum] marit[imum]*, 14 clovers in Grain, *Marrubium*, *Mariana [lactea]*, *G[ravesend]* and *Sho[rne]*, *C[entaurea] calcitrapa*, *Lactuca saligna*, *Onopordum*.
- d) Brackish marsh — ditches, etc. 2 rare *Rumex*, *Eleocharis uniglumis*, *C[arex] divisa*, *Cheno[podium] botry[oides]*, *Sis[ymbrium] sophia*, *Pucc[inellia] fasc[iculata]*, *P[uccinellia] dist[ans]*, *P[uccinellia] pro[cumbens]*, *Ran[unculus] baudotii*, *Pot[amogeton] interr[uptus]*, *lucens*, *Oe[nanthe] fist[ulosa]*. Canal; Grain; Upnor; Cooling. Polypogons (Grain). *Ruppia / Zann[ichellia]*, Stone.
- e) Fresh Water: decayed marsh — *J[uncus] obtus[iflorus]*, *C[arex] div[isa]*, *C[arex] distich[a]*, *C[arex] dist[ans]*, *C[arex] panic[ea]* — Northfleet and Crayford *Thalictrum*. f — true form marsh. Darent. Orchids. *Oe[nanthe] pimp[inellifolia]*, *Glauca*. *Thy[mus?]* *vulgaris* — yell[ow] waterlily and *Ran...fluitans*, *Card[amine] amara*, *S[tellaria] neglecta*. *Joydens*, *Farn[borough] Wood* — *Sax[ifraga] gran[ulata]* (gravel).
- 2) Eocene beds. Sandy loam — Darent, Mounts, Swanscombe, Cobham: Shorne Woods. Clay — Upnor, Swanscombe, Cliffe and Halstow. Heath Dry Common: Shorne (pebbles) *G[ree]n St[reet] Green*. Woods: orig[inally] oak or part oak, birch, hornbeam (e.g. Cobham) now chestnut planted. (former light, drier, latter heavier soils),. Hazel in Cliffe Woods..
- V[ery] rich flora: Tutsan; Lily of the Valley; Solomon Seal; Hard Fern; Mountain Fern (v[ery] rare); *G[rea]t Wood rush*; *D[aphne] laureola*; *Iris foetidiss[ima]*; *Ruscus*, all very char[acteristic]. *Primula*, *Scilla*, *Mercurialis*, *Pteris*, *Lonicera*. Similar woods near Woolwich — *Narcissus* (form a) Shorne, Swanscombe, etc. Pea, *Lotus Epilobium lanceolatum*, *Aira caryoph[ylla]*, sedges, *Aira flexuosa*.
- Clay: *Trif[olium] medium*, *P. magna* (Cliffe), *B. biennis*, *H[ypericum] pulchrum*, *humifus[um]*, *hirsut[um]*, *perforatum*. *Filago germ[anica]* — bare places. A ... fld. *Nepeta glechoma*...
- Dry Commons: v[ery] int[eresting], 10 clovers at Green St[reet] Green, Shorne, arvense, *prat[ense]*, *re[pens]*, *fil[iforme]*, *camp[estre]*, *stri[atium]*, *suff[ocatum]*, *glom[eratum]*, *subt[erraneum]*, + 14 in Grain (+ *hyb[ridum]*, *scrabr[um]*, *[squamosum]*, *frag[iferum]*. V[ery] dry — Farn[ingham] — *Hypo[chaeris] glabra*... *Moenchia*, even *Monita*, *Calamintha nepeta*, *Nepeta cataria*, *Mariana*... *C[entaurea] calcitrapa*, *Draba verna*. Formerly *Scilla autumn[alis]*. Aliens: *samb[ucus] ebulus*, *Pot[entilla] recta*, *Ger[anium] luc[idum]*, *Ger[anium] rotund[ifolium]*, *C[erastium] arvense*.
- True heath: Shorne and (Dartford) *Calluna*, ((*E[rica] tetralix*, *Joydens* only), *U[lex] nanus*.
- 3) Chalk: 3rd great area — v[ery] interesting indeed, but v[ery] dissected; outcrops beneath the Eocene plateau and where eroded in valleys, now much quarried by man near Thames. In Woodland, it appears at Mounts, Cobham, and Crabbles Woods; also beneath: sudden change in flora: *Hypericum montanum* the b[oun]d[ar]y plant; v[ery] rare Kent. *Daphne* commoner. Orchids. *Lactuca virosa* in old pits, formerly rare. *Helianthemum fringes* Woods; *Cal[amintha] acinos*, *clinopod[ium]*, and *ascendens*; *Atropa*; *C[erastium] arvense*, *Peucedanum*, on banks of roads. V[ery] steep Quarry sides and cuttings — limited flora — *Senecio squalidus*, v[ery] c[ommon], *Centranthus ruber*, v[ery] c[ommon] — *Lac[tuca] scariola*, v[ery] common — *Onopordon*, local — *Antirrhinum*, less c[ommon] — *Diploxys*, v[ery] c[ommon], *V[erbascum] lychnitis* (rarer), *Salvia horminioides*. *Clematis*.
- Less smokey Banks: *Silene italica* (only loc[al]) *Anthyllis* also.
- True chalk grassland: *Hippocrepis* and 2 orchids
- scarce in area in B[rachypodium] pinn[atium] grassland,
 - best area S. of Cobham Park.
- Hedge and border of park: *Salvia prat[ensis]*, *Astragalus* (also M[oun]ts Rd., Northfleet), *Althaea hirsuta* (only native loc[at]ion)).
- Ploughlands: v[ery] rich: *A[juga] chamaepitys*, *Specularia*, *Linaria spuria*, *A[nagallis] foemina*, *Filago spath[ulata]*, *L[inaria] elatine*. Rich in orchids — separately dealt with. *O[rchis] mascula* — not common. *O[rchis] morio* — not seen. *O[rchis] maculata* — Darent, Greenhithe, Shorne. *O[rchis] purpurea* — v[ery] r[are] — Shorne, and Mounts Wood, S. of Cobham Park. *Anacamptis* — S/ Cobham P[ar]k, Greenhithe, Dartford. *O[phrys] apifera* — Greenhithe, Cobham P[ar]k. *O[rchis] praetermissa* — Darent, Greenhithe (fine hybrids here). *Neottia* — Shorne. *E[pipactis] violacea* — Swanscombe W[oo]d. *E[pipactis] latifolia* — S. of Randall Wood, Shorne. *Listera* — Greenhithe, Dartford, Shorne, Cliffe Woods. *Spiranthes* — Cliffe pits. *Ceph[alanthera] pallens* — S Cobham P[ar]k, Dartford; Nurstead. *Epipactis palustris* - Greenhithe pit.
- Summary:** Great unexpected — richness, - v[ery] varied, prob[ably] where in Eng[land] can so many plants be seen in a such a small area in one day. 750 spp minimum.

(13) The heathy forest division – best for “atlantic” species. [Special plants listed, species confined to (13) were *Illecebrum*, *Anthemis nobillis*, *Mentha reliquenii*, *Elatine hexandra*.]

(14) V[ery] poor? [Special plants listed, species confined to (14) comprised *Cyclamen hederifolium*.]

(15) Fine marsh and coastal flora – follows (4) in this respect. [Special plants listed, species confined to (15) were *Dryopteris cristata*, *Carex serotina*, *Raphanus maritimus*, *Sium latifolium*, *Crepis foetida*, *Littorella lacustris*, *Carex diandra*.]

(16) Fair only. Little known today: better known in past (G.E. Smith’s hunting ground). [Special plants listed, none confined to (16).]

The history of the flora and vegetation of Kent since Late-Glacial times was to be described, including the problem of re-immigration of plants¹²; the forest maximum; the fate of the open habitat species; early man in Kent; the historical period (including the use of old maps to show decline in heathlands and downland); and changes at the (then) present time. The most recent changes would presumably be those outlined by him in 1962¹³: the pressures of development and modern methods of farming and forestry. Farming changes had almost wholly eliminated the old permanent pastures of heavier soils, replacing them with leys; and had entailed the ploughing up of chalk downland slopes, the drainage of bogs and heathland, the loss of hedges with enlargement of fields or needless replacement by fences. Forestry had been affected by the old coppice-with-standards system becoming uneconomic, and at that time the old woods, except on chalk, were being replaced by pure chestnut coppice or dense conifer plantations. Francis Rose made some outline notes for this section, kept with his Flora papers, as follows:

The history of the vegetation of Kent since the Ice Age.

There is little purely local evidence. Information on this subject has been largely obtained from pollen analysis data, and to a less extent from macroscopic remains in alluvial deposits (peat, river gravels, lake muds, marine deposits). In Kent, we have few sites where damp peat beds of great age occur; Ham-Hacklinge fen — loved by Godwin, never published. Hothfield Common — very shallow liquid peat — very recent. Medway — not studied. Some data from Thames side (Roman, Potteries) and Thanet (Bronze age coastal sites). Picture derived from general English studies, mostly in E. Anglia, also in New Forest, Southampton, etc.

Give diagram of pollen zones (Episcopo).

Pliocene — before the Ice Age (Matthews (1955) orig[in] and distribution of the British Flora. Godwin Hist[ory] of Brit[ish] Flora, 1957).

Flora much as now; Cromer Forest Bed, Decid[uous] forest.

Full glacial: arctic flora, e.g. Lea Valley Middx, and Cambridge. *Arctostaphylos uva-ursi*, *Betula nana*, etc. (see list in Rose, Lond. Nat. **36**, p30, 1957.¹⁴

but also some maritime (*Silene maritima*)

some marsh species: *Carex pulic[aria]*

Pot[entilla] palustris

Damasonium [alisma]

Vicia sylv[atica]

Eriophorum ang[ustifolium]

Salix rep[ens]

Menyanthes [trifoliata]

Pot[amogeton] obtus[ifolius]

Ice not nearer than 100 miles then.

Thus ... Max. of Ice Age.

¹² Cf. Rose, F. (1957). The importance of the study of disjunct distributions to progress in understanding the British Flora. In (ed.) Lousley, J.E. *Progress in the study of the British Flora*, The Botanical Society of the British Isles, Arbroath.

This paper suggest that the chalk cliffs of East Kent may have provided a treeless open habitat for calcicole grassland species during the forest maximum, until Bronze Age clearances north of Dover enabled re-spread to occur. *Galium pumilum*, *Falcaria vulgaris*, *Euphorbia cyparissias*, *Silene nutans*, *Thesium humifusum* and *Cirsium eriophorum* as given as possible examples; also a pale form of *Polygala calcarea* in the Dover area. On the other hand, orchids and broomrapes may well have colonised by wind-blown seeds from the Continent, after the British Isles had become separated.

¹³ Rose, F. (Autumn 1962): The Naturalists’ Trusts: No. 1 The Kent Naturalists’ Trust Ltd. *Countryside, the Journal of the British Naturalists’ Association*.

¹⁴ Rose, F. (1957). Vegetation History and Environmental Factors in the London Area. *London Naturalist* for 1956, 36: 29-40. This paper, at least as far as the Iron Age, follows closely the notes given here, albeit adjusted as applicable to the London area.

Hence flora like arctic tundra of Lapland or Iceland, or m[oun]t[ain] tops in Scotland today — no woodland — open scrub-heath — some present day bog plants still with us. We can assume therefore that the woodland flora of Kent of lowland species had almost completely disappeared during the Ice Age — had to re-emigrate except for a few heath and marsh species and aquatics.

Birch woods of Allerød.

Recession:

Birch pine pre-boreal IV.

Boreal. Pine V, evidence in Sussex and Surrey.

VI, Pine – Hazel.

VIIa Atlantic mixed oak forest, warmest period.

VIIb Sub boreal drier, cooler, dry. Neolithic – Bronze Age – lime pollen at Addington.

VIII Sub atlantic – much cooler and wetter, bogs grow faster.

Holes [Holocene?]

Post glacial period — v[ery] open — (see Piggott & Walters 1954). Many common weeds of today v[ery] common, also chalk grassland, open habitat species, e.g. *Helianthemum*.

Neolithic period — much forest cleared in E Anglia (Hockham Mere etc.)

no doubt in Kent too: where?

late Neolithic 1800 BC. Kits Coty, Coldrum; prob[ably] same period: Giants Grave, Juliberry's Grave. Clearances in Medway Valley and at Wye. Many chalk spaces may have spread then.

Bronze: heaths on Greensand; and on E. Kent chalk plateau. Prob[ably] heaths formed later on land cleared then.

Iron age — more forest cleared. Hornbeam common and Beech commoner.

Romans — Caesar prob[ably] wrong about *Fagus* absent in Kent. He prob[ably] didn't explore the forested areas.

Mediaeval period. More clearance in R[iver] Valleys in Weald.

Elizabethan Maps — Woods essentially as today; but more ... e.g. Blean, Mereworth (Wild Boar), Kings Wood, Ham Street, Chalk plateau.

Historical period: Botanical study.

See *The New Flora of Kent*, Rose 1955 SE Nat. & Ant., p.9.

Turner – 1548 Names of Herbes

John Gerarde 1597, Herbal

Thomas Johnson 1633 Gerard emaculatum

1629 Iter) 1st accounts of botanical rambles in Kent.

1632 Descriptio)

give details from MS.

Parkinson Theatrum 1640

C. Merrett Pinax 1666

Ray, several records taken up

E. Jacob — 1st local flora in Kent, 1777.

Dillwyn & Turner, Bot[anical] Guide.

G.E. Smith.

H. Cowell – 1840.

H[anbury] & M[arshall] 1899.

My own work

Nearly half of the flora, excluding the species accounts, was to be devoted to an account of **the remains of the natural vegetation and habitats of Kent** up to the end of the mid-20th century, dealing with natural and semi-natural vegetation and with weed communities dependent upon man. Judging from Francis Rose's published work on similar topics for Sussex¹⁵ and Hampshire¹⁶, this would have been a landmark description. It is unclear whether it was ever completed, but it may well have intended to be an expanded version of the habitat descriptions given in the county Bryophyte Flora, although there would of course have been a different emphasis in relation to the vascular plant flora and it was not to follow that work in being structured closely against the botanical districts.

¹⁵ Rose, F. (1995). *The Habitats and Vegetation of Sussex*. Brighton.

¹⁶ Brewis, A., Bowman, P. & Rose, F. (1996). *The Flora of Hampshire*. Colchester.

The vegetation account was to cover ten different aspects, as follows.

It was to begin with the vegetation of the county coastline and estuaries. For the Thames-Medway estuary, consideration was to be given to its salt-marshes; the tidal marshes of the Upper Medway; brackish marshes and the effect of inining; sea-level changes; shell-sand beaches; and the clay cliffs of Sheppey. Examples of each were to be cited and discussed in detail. Then the Stour estuary was to be dealt with, and its salt marshes and brackish marshes were to be compared with those of the Thames/Medway. The sand dune system of Sandwich and the shingle beaches of north east Kent were to be described and comparison made with other British dune systems. The Romney Marsh region would be mentioned for the Romney-Lydd dune system; and the development and vegetation of the largest shingle tract in Europe, Dungeness.

The second aspect of the account was as regards the habitat of the sub-littoral fresh-water marshes and fens, and their former conditions. This involved the drained alluvial flats of the Kent coast and the aquatic vegetation of their dikes; the relict fenlands of East Kent¹⁷ (Ham, Wingham, Preston, Stodmarsh and Dungeness Open Pits); and the small inland spring fens of the chalk and ragstone springs.

The vegetation of the Eocene tracts of Kent would have covered the London clay areas of north west Kent with the heaths of the lower Eocene (Keston, Hayes, Chislehurst) and the old woodlands (Joydens Wood, Farningham Wood, Darenth Wood, etc.), their vegetation in relation to land use history. Also, the Hoo Peninsula and its soil-vegetation complex; the brickearths of the Swale plain; the Isle of Sheppey; making comparisons with south Essex. The vegetation of the Blean district was to be compared as regards its resemblances and differences to that of the High Weald; and general consideration was to be given to the cultivated lands of the Eocene and their weed flora.

The vegetation of the chalk country of Kent would probably have provided a lengthy section. It was to begin with comment on the structure of the chalk country, noting the dry valleys with their valley-floor deposits and the presence of varied drift cover. The history, structure and flora¹⁸ of the chalk grasslands (being a sheep-adapted plant community) were to be considered as a whole, with mention of what Francis Rose described as the calcicole problem. Then there were the chalk woodlands, beech forest and other woodlands, with issues of succession and the scrub communities; and the chalk woodland communities of East Kent were considered in some respects to be unique. The account would address what was the original pre-Neolithic climax forest on chalk soil; variation in the vegetation of the chalk country from east to west, with the spread of the chalk grassland flora probably originating from three centres after forest clearance; also attention would be given to the drift-free chalk plateau of north east Kent and its vegetation, Thanet being compared with the South Downs. The vegetation of the drift-covered chalk plateau was to be related to its varied soils: clay-with-flints and Pliocene sands. Then there were the plant communities of the coastal cliffs and the arable weeds of the chalk lands. Francis Rose made some notes, kept with his Flora papers, which may indicate how part of this section was to be approached:

The Chalk Woodlands of Kent

Geol[ogical] map — c[lay] w[ith] f[lints] — bare chalk plateau...old woods form a “fringe” to summit of scarp and dry valley slopes. Much of downs — open sheepwalk on scarps, ± contin[uous] E. of Watling Street and in Thanet. Woods have undoubtedly spread.

¹⁷ It is likely that this section would have drawn on Rose, F. (1950). The East Kent Fens. *Journal of Ecology* **38**(2): 292-302.

¹⁸ It is unclear how this would have fitted into the Flora as described in the synopsis, but one of the surviving items which Francis Rose had typed out, probably around 2000, was headed ‘Flora of Kent: orchid-rich downlands’. This consists of a list of 18 locations, with the orchid species and varieties known for each, ranging from 5 to 21 in total.

- 1) Scrub of *Cornus*, *Vib[urnum] lant[ana]*, *Sorb[us] aria*, *Taxus*, *Rhamn[us] cath[artica]*, *Euonymus*, *Bet[ula] pub[escens]* (local), *Crata[egus] Mon[ogyna]* on deeper soils esp., *Rosa* spp., *Corylus*, *Frax[inis]*, *Acer camp[estri]*.
- 2) *Sorb[us] aria* — *Bet[ula] pub[escens]* *Taxus* on S.aspects; *Frax[inus]* — *Corylus* wood on north aspects.
- 3) *Fagus* woodland + *Taxus*, *Sorb[us] aria* — *Daphne laur[eola]*, *H[elleborus] foet[idus]*, *Ceph[alanthera] dam[asonium]*, *Sanic[ula europaea]*, *Merc[urialis perennis]*.

Variations:

- 1) Many dry valleys — modified to copp[ice] and st[andards] or pure copp[ice]. In mid Kent (Wichling, Bredhurst etc.) *Corylus Viburnum Frax[inus] copp[ice]*: + *Frax[inus]*, *Acer*, *Q[uecus] robur st[andards]*, *Fagus* local.
- 2) in Kent E of Canterbury Folkestone Road; *Frax[inus]* - *Acer* - *Q[uecus] robur* Woods; *Taxus* rare; *Fagus* rare; *Corylus* — *Frax[inus]* — *Acer* — *Cornus copp[ice]*. Wetter climate (35 ins p.a.); deeper loamy soil: *Allium urs[inum]*, *Paris*, *Mnium stellare*, *Angelica*, *Desch[ampsia] caesp[itosa]*, *Helleb[orus] vir[idis]*, *Pimp[inella] maj[or]*, *O[rchis] purpurea*.
- 3) E of A2: little natural woodland — except in areas of loamy superficial: Woolwich, Ileden Pitt Oak Ash coppicewoods. Eastling, Watertower Wood. Much Beech plant[atio]n, e.g. Barfreston area; *Monotropa*, *Neottia*, *Daphne*, freq[uent]. Scrub devel[opment] on old sheepwalks: country of *Lath[yrus] sylv[istris]* and *Cerast[ium] arvense*.
4. Beech planting on scarp to W. Westwell, Boxley, Shoreham in general, the pure beechwoods prob[ably] planted. Some ancient mixed woods at Barham, Boarley, Bluebell Hill, Snodland, Halling, Luddesdown. Medway valley Woods flora: *Helle[borus] foet[idus]*, *Atropa*, *Euph[orbia] lathyris*, *Buxus*, orchids, *Merc[urialis perennis]*, *Sanic[ula europaea]*, *Daphne*.

Note features of beechwood flora and regeneration.

Plateau Woods — what is natural veget[atio]n?

- 1) c[lay] w[ith] f[lints] — *Carp[inus betulus]* — *Q[uecus] robur* wood copp[ice] and st[andards]. Prob[able] orig[in] high forest. *Card[amine] prat[ensis]*, *Pimp[inella] maj[or]*, *Rubi*.
loams — *Allium*, *Paris*, *Adoxa*, *Card[amine] prat[ensis]*, *Ran[unculus] auric[omus]*, *Sax[ifraga] gran[ulata] v[ery] l[ocal]*.

Pliocenes — acid soils: *Luz[ula] sylv[atica]*, *Blechnum*, *Sarothamnus*, *Convallaria*, *Quercus pet[raea]*, *Rubi*.

The Gault clay belt and its damp oakwoods would prompt discussion as to the extent of their modification, resulting in the (then) present vegetation. Pasture and ponds would also be noted, and comparison made with the Boulder-clay woods of East Anglia.

The next aspect of the vegetational account would relate to the Folkestone Sand belt of Kent, its heathlands now lost or destroyed; its former vegetation and present relics: oakwood, heath, grass heath and valley bog. Hothfield Common is the best remaining example of the semi-natural vegetation of the Folkestone Sand; and it would be compared with the Thursley area of Surrey and with West Sussex. Then consideration would be given to the Folkestone Sand woodlands of the Wrotham-Sevenoaks area; and to the Sandgate and Bargate Beds (to be compared with the Surrey Bargate Beds woodlands). It is likely that the changes in vegetation over time would have received detailed treatment¹⁹ in relation to Willesborough Lees, Brabourne Lees and Charing Heath, against the background of what is still known to occur on the Folkestone Sands belt in west Sussex, remaining very rich.

The Hythe Beds escarpment provides Kentish ragstone scarps and acid drift soils; and the effect of lithological changes westward would be noted; the sessile oak woods on head deposits over the Hythe Beds. The calcareous Kentish ragstone vegetation would be examined: ash-elm woodland, grassland and scrub and the effects of cultivation. The drift soils vegetation of the Hythe Beds plateau would also form part of this account, involving the West Kent 'Highlands' and changes over the Surrey border.

Coming to the Low Weald, there would be an account of the vegetation of the woodlands, pastures and ponds of the Weald Clay, and of the influence of river gravels, etc. on the vegetation.

¹⁹ Mentioned *in litt.*, 2000.

The High Weald might be expected to generate an account of considerable interest, in view of Francis Rose's researches over a long period²⁰. It would have dealt with the remarkable atlantic flora of the High Weald of Kent and Sussex, associated with the microclimate of the sheltered wealden 'gills', many of which appear to demonstrate long-term continuity of woodland presence from a period of warmer and wetter climatic conditions. The vegetation of the acid plateau woodlands on Tunbridge Wells and Ashdown Sands would be described; as also that of the sandrocks of the Weald and the Wadhurst clay woodlands.

The final element of the vegetation account was to be the freshwater rivers of Kent, comparing their vegetation with that of the dikes and canals of the alluvial marshes and with other English rivers.

The Flora was then to include **a comparison of the vegetation and flora of south east England (Kent and Sussex) with that of north France** (Pas-de-Calais, Nord, Somme, Normandy, Brittany), with a discussion of factors that may be responsible for differences. The findings would presumably have reflected other publications by Francis Rose on this subject.²¹

There would be a **numerical comparison²² of the flora of Kent with that of Surrey, Sussex, Essex and north France**, with a discussion of geographic elements in the flora, considering both 'native' and 'alien' species.

The next part of the Flora would relate to types of **species distribution patterns**, with reference to dot-distribution maps given with the species accounts. It may be that this would be an expansion of the following notes, held with the Flora papers²³:

The types of distribution occurring in Kent plants

Main features botanically are: The chalk downs; Woodland areas; Alluvial flats; coastline, The Forest ridge; The Folkestone Sands.

A. Widespread spp where phys[ical] character of ... is ... feature, wayside spp "weeds"

1) Universal; in cultivated land;. *Bellis perennis*, *Artemisia vulgaris*, *Lamium rubr.* [*sic*]. *Crataegus oxycantha*, *Arrhenatherum elatius*, *Lotus corniculatus*, *Trifolium dubium*, *Anthoxanthum*, [*Capsella*] *Bursa[-pastoris]*, *Poa annua*, *Cent[aurium] umb[ellatum]*

2) Universal; in all wooded areas, irresp[ective] of soil. —: *Stellaria*, abs[ent] from alluvial areas and Thanet – nearly treeless. *Arum maculatum*, *Scilla*, O[rchis] *mascula*, *P. vulgaris*, *Galeobdolon*, E[uphorbia] *amyg[daloides]*, *Nepeta glech[oma]*, *Ajuga reptans*. Shelter more than shade the factor.

3) Universal in woods on heavy soil. *Carex pendula* (non-calc[areous]).

²⁰ Rose, F. (1946). The vegetation of the Weald, with special reference to Tunbridge Wells district. *The South-Eastern Naturalist & Antiquary* **51**: 1-6.

Rose, F. (1952). "Atlantic" species in the flora of the Weald. *The South-Eastern Naturalist & Antiquary* **57**: 18-23.

²¹ Rose, F. & Géhu, J.M. (1960). Comparaison floristique entre les comtés anglais du Kent et du Sussex et le département français du Pas-de-Calais. *Bulletin de la Société de Botanique du Nord de la France*. **13**(4): 125-130. This includes lists of species to be found in the English districts but lacking in the French; and vice versa.

Rose, F. & Géhu, J.M. (1964). Essai de phytogéographie compare, La vegetation du Sud-Est de l'Angleterre et ses analogies avec celle du Nord de la France. *Bulletin de la Société Botanique de France*. **111**: 38-70.

Rose, F. (1965a) Comparaison phytogéographique entre les pelouses crayeuses du *meso-xerobromion* des vallées de la Basse-Seine, de la Somme, de L'Authie, de La Canche, de la Cuesta Boulonnaise du Pas-de-Calais et du Sud-Est de l'Angleterre. *Revue Sociétés Savantes de Haute-Normandie – Sciences*. No. 37: 105-109.

Rose, F. (1965b). Botany on two coasts. *New Scientist*, July 15, 1965 pp.158-161.

Rose, F. (1972). Floristic connections between Southeast England and North France. In (Valentine, D.H. ed.) *Taxonomy, Phytogeography and Evolution*. London, Academic Press.

²² Cf. the section in the Flora of Hampshire (1996) entitled 'A Comparison of Hampshire's Flora with those of some other southern counties'. Some preliminary work was done, however, towards a comparison between Kent, Surrey and Sussex. Francis Rose prepared a MS note listing species in Kent only; in Surrey only; in Sussex only; and in Surrey and Sussex, but not Kent.

²³ These notes would appear to be drafted early on, not least from the older versions of plant names used (Bentham & Hooker, rather than CTW, 1952 edition); and some of the insights which emerged from the Flora work are not reflected, e.g. such as are mentioned in Rose, F. (1955). The New Flora of Kent. Presidential address to the Botanical Section. *The South-eastern Naturalist and Antiquary* **60**: 9- 19.

4) On all areas of heavy soils (gleys and brown earths) wooded or not. *Pulicaria dysenterica*.

B. Chemo-Edaphically det[ermine]d distribu[tion]s, confined largely to local soil types.

5) Calcicoles of main distribu[tion]s on v[ery] base-rich soils, chalk and rag[stone]. *P[rimula] veris...* *V[iola] hirta*, *Origanum*, *Cal[amintha] offic[inalis]*, *Cent[aurea] scabiosa*. More local — *Astragalus gly[cyphyllos]*, *C[repis] biennis*.

6) On chalk, rag[stone] and calc[areous] sand dunes — *Anacamptis*, *Anthropophora*, {*Platanthera*} *chlora[ntha]*.

7) Strict calcicoles on chalk, etc. — widespread — *Pot[erium] sang[uisorba]*, *Helianthemum*, *Scab[iosa] columb[aria]*, *Op[hrys] apifera*.

8) Strict calcicoles — localised to ± aborig[inal] turf in drier places; *Asperula*, *Hippocrepis*, *Gent[ianella] amarella*.

9) Strict calcicoles — woodland — *Helleborus foetidus*, *O[rchis] purpurea*, *Orchis muscifera*.

9) [*sic*] Strict calcicoles very local and puzzling — *P[olygala] calcarea* → *Aceras* → *P[olygala] austroica* → *Senecio camp[estris]*, *O. fuciflora*, *C[ampanula] gom[erata]*, *Filip[endula] hexapetala*.

10) v[ery] base rich deep woodland soils — *H[elleborus] viridis*, *Paris*. Little less base rich — (*Allium [ursinum]*, *Adoxa*) more wide off downs.

11) Wetter base rich — *C[arex] strigosa*.

12) Weald clay only — *C[arex] vulpina*.

13) rivers only — *C[ardamine] impatiens*, *N[asturtium] amphib[ium]*, *S[cirpus] lacust[ris]*, *Althaea off[icinalis]*, *R[anunculus] pseudofluitans*.

14) Coastal: (*Alluvium* — *H[elictotrichon] pratense*, *C[arex] divisa*
(shingle — *L[athyrus] marit[imus]*, *Crambe*, *R[umex] [crispus] trigran[ulatus]*
(sand — *Eryng[ium] [maritimum]*, *C[ampanula] soldan[ella]*.
(wide. *C. tenuiflorus [sic]*, + chalk. all beachy, *Glaucium*
(salt m[arsh] — *Limonium*, *Triglochin*, *P[olygonum] marit[imum]*, *Sal[icornia] ramos[issimum]*
(cliff — *L[inum] bienn[e]*, *B[rassica] oler[aceus]*, *Crith[mum]*.

C. Climatically det[ermine]d distribu[tion]s, v[ey] local

15) *P[olygala] oxyptera*, *Op[hrys] sphegodes*, *Rubia*, *Orobanches*, *Iris foet[idissima]* — bias E.

v[ery] local — 16) *Oe[nanthe] silaifolia*, *Oe[nanthe] fluv[iatilis]*.

17) High Weald. *Dentaria*, *Serratula*, *A. odorata*, *C[arex] helodes*, *Wahlenbergia*, *D[ryopteris] aemula*.

18) Heaths —...

19) bogs

20) fen.

Symbols and abbreviations cited would be explained in a section, **the plan of the Flora**.

The main part of the Flora, originally estimated to comprise some 200,000 words and then amended to 100,000, was to be the **species accounts** — a systematic section with data on the distribution of the species 'given in such detail as appears justifiable', including up to 100 dot-distribution maps. Sample maps are included below: they would not necessarily be restricted to Kent. In 2000, he said that the maps would be for limited selected species at 10k square level, or finer. The original intention was to include marine algae and bryophytes as well as vascular plants, but none of the former accounts has been traced. In any event, as regards bryophytes, Francis Rose published separately a Kent bryophyte Flora in three parts over the period 1949-51. Also in 2000, he was contemplating the incorporation of a check-list of names of 'all plants recorded for Kent'. He was undecided as to whether this would be a separate section or would be combined with the species accounts so that, in effect, all the named species would be listed in systemic order (as in Stace and Kent²⁴), but only those which were covered in more detailed 'case studies' (a term which appears to be equivalent to the concept of a species account) would receive more than brief mention. Casual aliens would be in a different font.

²⁴ At that time: (1) the second edition of Stace, C.A. (1997) *New Flora of the British Isles*. Cambridge University Press; and (2) Kent, D.H. (1992). *List of Vascular Plants of the British Isles*. London, B.S.B.I.

The Flora would have ended with a **bibliography**, a **list of contributors** and (according to earlier versions of the Synopsis) a **list of subscribers**, plus an **index**. Of these, only a set of bibliographical references (in no discernible order) appears to survive. The present Flora reconstruction incorporates at the end a list of contributors with other abbreviations which has been put together by the editor: there is no manuscript version by Francis Rose, although some contributor initials are taken from Rose (1960).²⁵

The remaining species accounts

The surviving original manuscript starts (in what would have been the second folder) with *Hydrocotyle vulgaris* through to *Hieracium lanatum*; then (third folder) from *Viola hirta* to *Hedera helix*; and then (the fourth folder, after a missing page or pages) from mid-way through *Alisma plantago-aquatica* to the end of the species accounts (i.e. virtually all of the Monocotyledones). The accounts were written on foolscap paper, which had been assembled into ring binders. The standard format gave a heading with the Latin name and authority for the taxon, followed (in most cases) by a note of which Kent vice counties (15 and/or 16) it had been recorded in, the English name and the total numbers of 10km Ordnance Survey squares in which it had been known. Most taxa were then given a short commentary and then records were listed under the relevant botanical districts 1-16. The records were evidently added on an ongoing basis, and the result was sometimes messy, even near-indecipherable. At a later stage, it appears that, instead of just relying on citation of a botanical district, six figure gridreferences were added to many records and a further grouping into the relevant 10km square was begun, often with annotated clusters of 10km square numbers to show how mapped distribution might appear (as well as smaller clusters as working notes to remind how the records in one or more botanical districts would contribute to the fuller mapped distribution).

While the initial part of the species account original manuscript has not yet come to light, it is nevertheless (for ferns and fern allies especially) the most up-to-date section, as this was typed up by Owen Davies and revised by Francis Rose in 1999. Some of this section exists both as an interim typing and a re-type, in addition to photocopies of the underlying manuscript. The revisions were quite extensive, adding and removing material, as well as re-structuring the accounts. Items removed included some historical data, multiple sites for relatively common species and (from the headings) the numbers of known and extinct locations and the numbers of Ordnance Survey map squares where present or extinct. The later species accounts apparently did not advance beyond manuscript, and many of these bear extensive crossings-out and interpolations. At least some accounts seem not to have advanced since c. 1960.²⁶

A number of accounts were preserved as photocopies taken by Rosemary FitzGerald in the mid-1980s, when the species accounts were lent to her for survey work on rare plants in South East England. These extracts, as well as copies from other sources, have helped fill in some of the content of the missing first folder.

In this transcription, the accounts are laid out below in the systemic order of Stace (second edition) and Kent, as mentioned above, as though the revisions started in 1999 had been carried through then; and it is assumed that Francis Rose would have adopted the approach which he was considering, of incorporating a check-list of Kent plants, so that where names of plants are set out here, they are taken from the check-list so far as it goes (unless otherwise indicated). The check-list was being compiled in 2000, starting from Eric Philp's *Atlas of the Kent Flora* (1982), with additions from the Kent Field Club Bulletins. Less than half of the check-list, however, survives. This is as a version typed up by Owen Davis in 2002 (annotated as 'To accompany "The Flora of Kent"') as far as the end of Aceraceae; the original manuscript also exists for this. Nomenclature of plants

²⁵ Rose, F. (1960). Botanical records for Kent, 1955-58 – vascular plants. *Transactions of the Kent Field Club* **1(2)**: 56-65.

²⁶ For example, that for *Euphorbia platyphyllos* is laid out on the original framework: a short introduction and then a listing of all 16 botanical districts for records to be filled in (mostly blank in this case). The proportion of old literature or herbarium records is high, and there are no modern records after 1956.

which would presumably have been in the rest of the checklist is in this transcript given in accordance with Stace (second edition), noting where the manuscript differs.

It was not Francis Rose's intention to cover everything: 'My book will not contain much detail on alien species except for those that form part (or are now beginning to form part) of the permanent flora. I have little taste for rubbish-tip or wool shoddy aliens which mostly do not persist (except for those that become importantly established!)'.²⁷

Some of the conventions used in the species accounts are familiar in many Floras, such as exclamation marks for records seen by the author; square brackets around species which are doubtful or extinct, and these are also used for records for locations where the species now appears extinct. As regards other conventions:

- The references to numbers which group records together (sometimes as plain numbers; sometimes with a bracket following, and in the manuscript enclosed in a circle) are to the botanical districts 1-16 (see above, 'The planned contents of the Flora'). They are not to be confused with two-figure numbers which appear occasionally within the records, to identify the 10km Ordnance Survey grid squares – these, often in red ink, appear to have been added to the manuscript as the author began to consider species distribution in terms of hectads and began to include tables of hectad numbers, probably for working convenience rather than inclusion in the final version of the Flora. These hectad numbers are presented here in small, bold type at the end of records for a botanical district. While Francis Rose often grouped them as a mini-map, no attempt has been made here to present them in map format unless he put them together for a species as though there were an intention to provide a full map. In such cases, they are here mapped onto a background outline map of Kent supplied for the purposes of this transcript.
- Grid references are given without any prefaced TQ or TR (except where supplied for non-transcript sections relating to district 15 – see below).
- The letter N in a species heading signifies Native; H is of horticultural origin; C colonist; D denizen.
- The appearance in the heading of a number followed by '/52' (or by '/51') – there seems to have been a change in mind as regards the total – indicates the number of Ordnance Survey squares in the county, where the species is present; this notation has been removed by Francis Rose in his most recently revised entries.
- A dagger symbol (†) marks an introduced species.
- An asterisk denotes first Kent record.
- Square brackets (other than for species or records) have been added so as to fill out abbreviated words, or to add English names where presumed to have been intended. The context should show where this has been done, as distinct from Francis Rose's square brackets to show an extinct species or location. The added English names are taken either from Stace (second edition) or from Francis Rose's *Colour Identification Guide to the Grasses, Sedges, Rushes and Ferns of the British Isles and north-western Europe* (1989).
- References to Maidstone Herbarium as M have been converted to the standard **MNE**; references to the Herbarium at the Natural History Museum have been converted to **BM**, where not already cited as this; TW becomes **TLS**; and Kew is **K**, all standard herbarium names citations. References to private herbaria remain unaltered (Hb. = herbarium [of]). Initials of contributors of records have been left; and so far as they have yet been identified, they are given in a key at the end.
- The species descriptions (as distinct from records) are given here in blue font for presentational purposes; they are not separately distinguished in the manuscript.

²⁷ *In litt.*, 15 May 2000. Hence it is possible that where the checklist includes a alien plant name with a brief comment about it being naturalised or a garden escape, this may be the full extent of the species account which would have been given in the Flora. Where the comment is accompanied by a reference to E.P., the information is likely to have been derived from Eric Philp's *Atlas of the Kent Flora* (1982).

Thus, a typical entry should be interpreted as follows:

6)....77 Cliffe chalk pit 728766, 1945-62, abund. **MNE** (100 pl., 62, DL).

In botanical district 6 (chalk, from Darent to Medway) and in 10km square TQ77, it was present at Cliffe chalk pit, at ordnance survey grid reference TQ728766, recorded as abundant between 1945 and 1962. There is a specimen at Maidstone Museum herbarium. In 1962, David Lang recorded 100 plants there.

The manuscript itself, particularly as regards the parts later in sequence, presents some difficulties in interpretation, with numerous crossings out and additions. As the revisions appear to have been made on a cumulative ad hoc basis, there is often little consistency within an account, let alone between accounts. Colons and semi-colons are often difficult to tell apart; and even when obvious, they are not necessarily employed consistently. Underlining may denote italics, bold or divisions between parts of the text, or may place emphasis on some locations, and sometimes it seems without any logic. It is perhaps best ignored, as is done here, unless clearly intended to denote italics. Full stops are sometimes employed to excess, and these have been converted to commas or semicolons here when it would make it easier to tell where an entry begins and ends, and additional punctuation has been introduced for the same purpose.

The species accounts up to and including *Azolla filiculoides*, are taken from a typescript prepared by Owen Davies in collaboration with Francis Rose, and are a corrected draft revised by the latter in 1999 (the earlier typed draft also exists, in part, as also a copy of the manuscript). The format/layout reflects guidance given by Rose as part of the typescript preparation process. Obvious errors in the typescript introduced in the process of typing are corrected here, after comparison with the manuscript, but a failure to follow consistently the prescribed format/layout has not always been corrected. The process of revision pruned down many records, so that the manuscript is often a richer source of raw data than the revised version. This had long been the intention; Francis Rose wrote in 1985 of his intention to publish 'in much shortened form'²⁸ from the manuscript. In effect, he must have been regarding the manuscript (with his field note-books) as the equivalent of a card-index, from which the more representative records might be taken, without an intention to carry through all. Footnotes are given here to highlight some of the pruning changes between manuscript and revised version, but these are only a small proportion of the changes made in the revision. By far the greater part of the species accounts, however, never reached a typed or revised status, and so the full records are given in this transcription.

Some accounts (flagged accordingly, **highlighted in grey**) are not an exact transcript, but are taken from notes made in summary form by Owen Mountford in 1981, when consulting the manuscript in Francis Rose's study. The information was extracted for use in relation to floristic change in the Romney and Walland Marshes and focussed on aquatic, wetland and grassland plants, disregarding information in the Flora outside botanical district 15 (Romney marsh including Dungeness). Tetrad details have been added by Owen Mountford. He also abstracted similar records from Francis Rose's notebooks, and these would have been capable of amplifying the Flora considerably, but Francis Rose's 1999 revisions show that he was more than likely to have reduced the number of records rather than adding to them. Indeed, the following transcription of the manuscript must be regarded as largely being the listing out of what amounts to a database of records, upon which Francis Rose would have drawn in order to produce a more succinct account. For the purposes of present-day botanists, however, it is all the more valuable for giving the complete records, rather than a summary.

²⁸ In litt. to Rosemary FitzGerald, 15 May 1985.

FLORA OF KENT
FRANCIS ROSE

[for the most part transcribed from the original manuscript; otherwise taken from copy manuscript
extracts or copied from typescripts]

THE VASCULAR FLORA

Lycopodiopsida

LYCOPODIACEAE²⁹

[Lycopodiella inundata (L.) Holub MarshClubmoss. [15, 16].

Wet heaths, always rare, as such habitats have never been extensive in Kent, and extinct since at least 1930. [N].

1) Chislehurst Common, Martyn 1763; Keston Common, Pamplin c. 1855; 1 plant, 1930, S .E. Chandler, Hb. Glennie (BRIST). St .Paul's Cray Common, 1885, H & M (Hb. F.J. Hanbr.).

12) Hothfield Common G.E. Smith, FGEK, 1839; Hb.Glennie (**BRIST**). Reported by Miss Clarke 1931 ,but unconfirmed. Planted here experimentally by FR in 1947: it persisted until 1954, but has not been seen since]. Still on wet-heaths in Ashdown Forest, E . Sussex ,and on Lower Greensand in W. Sussex and in SW Surrey (still locally plentiful at Thursley Common). Extinct in Essex. Most plentiful now in S. England in Hampshire (Woolmer Forest, New Forest). One site in Pas de Calais (Foret de Desvres).

A declining species in Britain and Europe now, due to habitat change, and lack of grazing and peat paring on heaths, but still with strong holds in Hants and SW Surrey. Extinct as a native in E. Anglia since c. 1970, but it is now (1999) being re-introduced to some former Norfolk sites with proper management.

Lycopodium clavatum L. Common Clubmoss. [15, 16]. N.

Very rare now. Dry heaths, old sand-pits, and along rides in forestry plantations.

[1) Keston Mark (common?), Cooper *Fl Met.* 1836.]

10) Several sites found in rides between Kent Hatch on the Surrey Border, and a sandpit at Ightham Common 1948- 1980, several recorders (see Atlas). Now declining and no longer to be found in most of the former sites: 4252 Goodley Stock; 4452 Hosey Common; 4852 nr. Goudhurst; 5052 Whitley Forest; 5855 sandpit S W of Ightham, J. Felton 1948(!) (M) destroyed by run-off from a piggery close by, 1952. 6252 N. of Gover Hill, Mereworth Woods (E.P. Atlas). Oaken Wood, Barming, 1901, J .H. Allchin – not since.

12) Hothfield Common WRJ, H & M; 1960, F R & P. Wilberforce in heath by northern bog: not seen since 1970.

13) 5738 TunbridgeWells, 1849, Pryor (**MNE**); Tunbridge Wells Common WWR, c. 1880 (**TLS**). [7838 Brewers Wood, Cranbrook, among heather in ride, H & M]; 7234 Bedgebury Park, AHB 1944 (!)- gone by 1970; 7133 Bedgebury Pinetum, A.B. Jackson, 1945: several patches, 1964 FR. 7034 E. Philp (Atlas); 8236 Chittenden Wood, E P (Atlas) 19 [sic].

[14) Tenterden, H&M.].

L. clavatum had an extraordinary period of increase in localities in SE England between about 1948 and 1978, turning up mostly among *Calluna* in rides within conifer plantations, and also in a few sand and gravel pits. Since about 1985, it has gradually declined in SE England almost to the point of extinction. Its 19th century and earlier records were mostly from open *Calluna* heaths, many of which were planted up by the Forestry Commission, or private forestry concerns, from 1920 onwards. The majority of the sites, when examined today, are found to be covered with dense swards of *Agrostis canina* or *A .capillaris*, or with dense *Molinia* or *Pteridium*. Thus its phase of expansion suggests that, for establishment, it needs very open, sandy or gravelly skeletal soils. When natural succession occurs, the sites tend to become quite unsuitable for it and it is probably crowded out by competition and perhaps some degree of eutrophication, due to litter accumulation:

²⁹ The typescript omits, presumably deliberately, an entry for a species of dubious status:

[*L. selago* L. Reported at Sutton Valence in Fl. K., but this record is unreliable and most unlikely: it is extinct in Surrey, but still exists in one locality in the High Weald of E. Sussex!]

it: seems essentially to be a colonist of open habitats. The story is much the same throughout the English lowlands. When the present crops of conifers (now reaching maturity) are felled, and bare ground is created in the process, we may see a new development of *L. clavatum*, a species clearly adapted to very open, inorganic acidic substrates, both in lowland and montane areas.

SELAGINELLACEAE

Selaginella kraussiana (Kunze) A. Braun. Krauss's Clubmoss. H.

Very rare. Naturalised in places, e.g. in 13) in a shrubbery, Ferndale, Tunbridge Wells, 1958 C AS. Surely elsewhere in and near gardens on acid soils.

Equisetopsida

EOUISETACEAE

[Equisetum hyemale L. Rough Horsetail.

Formerly N, not seen for c. 150 years. "I have specimens from South Kent, sent me by Rev .G.E. Smith"- W. Borrer', *Phytologist*, (1853) V, p.45. Smith lived at Sandgate, and suitable habitats (boggy flushes), still exist in that area, but it has never been refound. It occurred in a wooded flush on Fairlight undercliff in VC 14, until at least 1939, H .P. Sargent in a similar place at Wanborough Wood in Surrey, VC 17, until 1850: and still occurs in similar habitats near Crondall VC 12, and near Southampton, VC 11, so it may yet be refound in Kent.].

E. fluviatile L. Water Horsetail. 15, 16. .N.

Swamps, shallow lake margins, and marsh ditches, in waters of a wide range of pH and nutrient content. In places an important primary swamp colonist in the hydrosere. Widespread and locally common, but absent from the chalk districts 5) - 9). Commonest in the Low Weald, and in the Marsh districts 4) and 15). Over 70 sites known³⁰.

Locally common in similar habitats in the adjacent counties: likewise the Pas de Calais and Flanders.

E. arvense L . Field Horsetail. 15, 16. N.

Roadside, rough fields, bare or waste open ground: common generally but very rare on chalk, except for a few sites on disturbed soil.

Ten sites in 8).³¹ Common in all adjacent counties and in N. France.

E. sylvaticum L. Wood Horsetail. 15, 16. N.

In acidic flushes or on spring-lines in woodlands, especially in Alder carrs, on weakly acid, very wet, sandy or peaty soils where there is some horizontal movement of water.

Scattered in some ten sites in the High Weald 13) and 14), from Speldhurst E to SE of Biddenden, in one site in the Blean 3), and (formerly) on the Eocene strata SE of London 1).

This beautiful species has a largely northern distribution in Britain, where it is often in quite open situations, including railway banks: scarce in the southern counties

[1] Charlton Wood, Merrett, 1666; Chislehurst, Ray.]. [2) Near Oare Mill , Jacob, 1777].

3) Flush in Hunstead Wood N.R., Chartham Hatch, 097568, 1956- 97 MNE. [Other old records for 3).].

13) Avery's Wood, Speldhurst 5440, JP. Roundabouts Wood, Tunbridge Wells, 593408, 1943-54³². Brokes Wood, Southborough 5842, 1953! MNE; W. of Sherwood Park 6040, 1955 CAS; [Colebrooke Park, H&M]; Brookland Wood, Lamberhurst Quarter, 659387, JRW (1978!) MNE; N. of Pembury Waterworks 626429, JEL 1962! MNE; S. end of Brenchley Wood N .R! 648417 MNE; Combwell Wood, Goudhurst, 7134 Lord Stirling TLS³³ but not refound recently;

³⁰ Listed or summarised according to district in the earlier manuscript.

³¹ This sentence seems inappropriate; the ubiquity of the species is such that it serves limited purpose to single out the number of sites in botanical district 8. The manuscript does not include this; but refers to the plant growing 'mainly on clayey or sandy soils, 166 modern localities. *1629: Grain to Cliffe. Johnson, *Iter*, p.8.'

³² The attribution in the manuscript of this find to J.R.W. in alder carr has been omitted in the typescript.

³³ 1897 in manuscript.

14) Sandpits Wood, Biddenden, 855305 1963 MNE.

In the Boulonnais and elsewhere in N. France.

E. palustre Marsh Horsetail. 15, 16 N.

Fens, wet peaty meadows, marsh dikes, dune slacks, in alkaline or weakly acid waters: common³⁴ in the alluvial districts 2), 4) & 15) and in the Holmesdale river valleys of 10), 11), 12) & 16) though now reduced by "improvements". Rarer in the Low Weald, more frequent in the High Weald 13) & 14). Absent from the chalk districts, except by the R. Dour above Dover. Frequent in the adjacent counties and in N. France and Belgium, but diminishing everywhere today.

E. telmateia Ehrh. Great Horsetail. 15,16. N.

In flushes and along spring-lines, where pervious water-bearing strata overlie impervious strata (eg. clays) especially where the pH is high. Absent from dry strata (chalk and sands) and from uniform areas of little relief. Hence rare or absent in 5) to 9) and in 15); very local in 2), 3) and 4): fairly shade-tolerant.

1) Rare; Ravensbourne, Catford; Scadbury Park, Pond Wood and Petts Wood, Chislehurst, on Eocene spring-lines.

2) Local; osier beds by tidal Medway: abundant in flushes on the slipping clay cliffs on the N. coast of Sheppey.

3) Occasional on the spring-lines on the south of the central Blean plateau.

4) Here and there on spring-lines at the junction with chalk or Eocene strata, not on the flat alluvial areas.

10) to 14), 16). Locally abundant along the foot of the chalk and Ragstone scarps, and scattered in undrained places in the High Weald.

Locally common through S E England and in N. France.

Pteropsida

OPHIOGLOSSACEAE

Ophioglossum L.

Ophioglossum vulgatum L. Adder's-tongue 15, 16. N.

Dry or damp old pastures and meadows where unimproved, short-sward fens, old woodlands (especially on chalk); old quarries. Avoids acid soils.

Still widespread but decreased in last 100 years. 90 sites³⁵ in my records in all districts except 9. Occasional in adjoining counties and in N. France in unimproved sites.

Botrychium Sw.

Botrychium lunaria (L.) Sw. Moonwort 15, 16. N.

Formerly in ancient pastures or grass-heaths in short turf, on clay or loam soils. Never common, even in earlier recording times, now apparently extinct³⁶ (last record c.1960).

[Greenwich, L'Obel*, 1570.

1) Blackheath; Chislehurst; SW of Dartford.

2) Graveney, Blackstone.

5) Hill Park, Westerham; Chevening Park, c.1930.

7) Small pasture on clay-with-flints, S. side A 249, top of Detling Hill, 1938, J.B.M. 1946-47! MNE (with *Orchis morio* and *Ophioglossum* etc.) Not refound since!

11) Coxheath, Gerard.

12) Ashford Warren, Miss L. West, before 1939 E.S.

13) Bedgebury Pinetum, 1960, F. R. Browning. Tunbridge Wells Common TLS; Combwell Farm, Goudhurst, 1900, Lord Stirling, TLS.].

Spores of this species were found in a peat-deposit SE of Wingham (Bronze Age) (Godwin). It would probably have been common in late Devensian and early Flandrian times, when there was much open terrain in Kent.

³⁴ Manuscript states 97 localities known, but does not list them; var. *polystachion* is said to be not infrequent.

³⁵ Manuscript says 91 in all districts except 9 and 10. Records (or totals) are cited in the manuscript for each district and reference is made to Late Bronze Age spores found near Wingham.

³⁶ Assessed in manuscript as extremely rare, and intermittent in appearance.

Not recently seen in England E. of N. Hants and S. of the Suffolk Breckland, but still in Sussex, Castle Hill W. of Lewes (1965!). Frequent in N and W Britain; very rare in N. France now.

OSMUNDACEAE

Osmunda L.

O. regalis L. Royal Fern. 15,16. N, H.

As a native, this fern was formerly widespread in S.E. England, but the Victorian "Fern Craze" largely wiped out the native populations in most places, as *Osmunda* was a special favourite to grow in conservatories as well as water-gardens. All this activity has long ago died away, and *Osmunda* (and most other ferns) have recolonised very widely in the 20th century. What however, we cannot be sure of, is whether existing large plants of *Osmunda* in natural-looking sites (wet carrs less acid bogs, pond margins, etc.), especially in former ornamental estates are 1) relict natives, 2) old 19th century plantings, or 3) more recent invaders from elsewhere; but today the question is a rather academic one! The simple facts are that *Osmunda* is recolonising suitable habitats in some parts of Kent.

The most likely natural sites are in boggy woods (it is moderately shade-tolerant), and the possibly natural re-invasions of damp walls and rocks, especially around Tunbridge Wells.

1) Keston Common, H&M: SE corner of Lower pond, Keston Common 1947 and since, **MNE**; Holwood Park estate, 1948-54 and to the present, **MNE** – possibly relict here in part; Ravensbourne estate, Keston, 1956 **MNE**; abundant by stream, Danson Park³⁷, Welling, GMB.

[3) Old records for: Perry Woods, Selling; Bigbury Woods, Chartham to 1930 ,ECG; Chartham Hatch].

(4) Strangely it has never been recorded in the fens and marshes between Sandwich and Deal.).

[10) Rose Wood, Ightham Common, 1870, B .Harrison: not recorded since.].

12) 9835 Longrope Wood, Orlestone: (loc. plentiful), E. [Smith]³⁸.

13) 553414, wall, Speldhurst Church, KEB; 5840 railway cutting N of Tunbridge Wells station, CAS; 5639 Rusthall Common Rocks, 1949 KEB; 5740 Culverden Glen, 1947 FR; 6142 Pembury Woods ,M. McFarlane; 7233 Bedgebury Pinetum, 1947-50, **MNE**.

14) 8934 Knock Wood, E. of Tenterden, in Alder carr, E. Scott 1956, **MNE**: possibly native here.

16) 1635 Ditch by old railway, Saltwood, 1955 ,LJM.

Scattered in the Surrey and Sussex Weald, where most present localities may be due to earlier landscape gardening, but certainly native though rare, in Ashdown Forest, Sussex, and Thursley Common in Surrey. Frequent and native, however in New Forest bogs, and locally abundant still in carrs in the French Boulonnais.

ADIANTACEAE

Adiantum L.

†A. capillus-veneris. Maidenhair Fern 15, 16. H.

On damp stonework or old walls: alien in Kent, derived by spores from gardens or greenhouses, etc: very rare.

1. Damp stonework, Walmer Castle, D .H. Seth-Smith, *Gard. Chron.* 1962.

2. In an old well, Scotney Castle, 1960, KEB.

This is native in Britain as far east as Dorset only.

PTERIDIACEAE

Pteris L.

†P. cretica L. Ribbon Fern. 15, 16. H.

Old walls, etc. As an escape from cultivation at: 4857 Chevening; 5466 Farningham, and 3042 Dover (EP in Atlas) (from S. Europe).

MARSILEACEAE

Pilularia L.

³⁷ Assessed in manuscript as probably planted.

³⁸ E. Smith is given in the typed revision, but ES in the manuscript, which usually refers to E. Scott. Also in the manuscript, *Osmunda* here is stated to be reputedly planted, rather than locally common.

[**P. globulifera** L. Pillwort. 15 - very doubtful.

Reported in H&M (p.429) from 11) Sutton Valence (Mrs. Petley), but this is unconfirmed in that area and almost certainly an error, as no suitable habitats for it have existed in that area for a very long time. It could have occurred by acid water ponds in the past in the Weald (as in Sussex).]

HYMENOPHYLLACEAE

Hymenophyllum Smith

H. tunbrigense (L.) Smith. Tunbridge Filmy-fern. 16. N (extinct).

*1688 — found by Mr. Dare, ‘circa Tunbrigiam’, Kent³⁹. This probably refers to its former occurrence on the High Rocks (in Sussex) where it has not been seen since c .1875, but it is almost certain that it formerly occurred on the Hungershall Rocks in Kent on the opposite side of the road to the High Rocks, and possibly elsewhere nearby in Kent, but no localised Kent specimens are known to exist. Forster (*Fl. Tonbr.*) only gives Sussex localities by name, but adds “and most of the other rocks” in the neighbourhood (p.121). Jenner (*Fl. Tunbridge Wells*) likewise only names Sussex localities. It was however, reported from Penshurst (in H&M) by Mr. John Cox.

Every sandrock outcrop of any size in the Kent High Weald has been searched for it over the last fifty years, but it has not been found. It is still, however, (1998) in eleven Sussex sites, the nearest being at Eridge Green Rocks and Saxonbury Hill. Westward, the nearest localities now are in the Quantocks and near Porlock in Somerset. It is also still S. of Cherbourg in Normandy. To the east today it persists at one site in Luxembourg. It is a plant that requires damp, lightly shaded acidic sandstone rocks to survive but it can occur on the lower parts of tree trunks rarely, in sheltered woodland. It is quite widespread in moist tropical forests, and in Britain it is presumably a relic of the extensive forests of the Atlantic period in pre-Neolithic times.

(*Trichomanes speciosum* Willd. (Killarney Fern) has been discovered in recent years on the Sussex sandrocks, but only as the gametophyte generation. This could be found on the Kent sandrocks; the gametophyte looks rather like a filamentous green alga, and is very easily overlooked.⁴⁰)

POLYPODIACEAE

Polypodium L.⁴¹

P. vulgare L. Common Polypody. 15, 16. N.

As the aggregate, this is widespread in Kent. The segregate *P. vulgare* s. str. occurs mainly on tree boles or branches in woodland or on sheltered lane sides or hedgebanks in the Weald, and is rare or absent in the drier, less humid, north of the county and in the open flat districts.

P. vulgare x P. interjectum (= **P. x mantoniae** Rothm.).

In the Hawkhurst-Cranbrook area, rare, with both parents, E P in Atlas.

P. interjectum Shivas Intermediate Polypody. 15, 16. N.

This Polypody is found throughout Kent, mostly on walls and banks ,but also in woodland. Many of the older churches and churchyards have it, especially on ragstone stonework.

P. cambricum L. (= **P. australe** Fee) Southern Polypody. 16. N.

Only so far reported in a wall at Penshurst Place; this very southern species may be found on more old buildings in the south of Kent, as it is scattered along the south coast into East Sussex.

DENNSTAEDTIACEAE

³⁹ It is unclear why Francis Rose thought it necessary to add ‘Kent’ here, since it is not in the original source (which he cites in the manuscript as Ray’s *Fasciculatus*, although the record in given is English; in Latin it is instead in Ray’s *Historia Plantarum*).

⁴⁰ A prescient observation, as it was recorded in two Kentish areas in 2016.

⁴¹ The *Polypodium* account has undergone major change from the earlier manuscript. This acknowledged that the *Polypodium vulgare* aggregate had ‘recently’ (giving literature references of 1961 and 1963, which afford some dating evidence for this part of the manuscript) been split into three species, ‘but my records for these are very incomplete as most of my field recording was done before the segregates were recognised in Britain’. However, the manuscript gives a large number of records or record totals per district for *P. vulgare*, both s. l. and s. str., and for *P. interjectum*, albeit that the *P. cambricum* (as *P. australe*) account is blank.

Pteridium Gled. ex Scop.

P. aquilinum (L.) Kuhn Bracken. 15, 16. N.

Heathland, open woodland, neglected grassland on well-drained, non-calcareous soil, also on damp walls and on waste ground. Abundant generally, except in the marsh districts 2), 4), & 15)⁴²: unknown on the Denge Beach on leached fixed dunes at Sandwich Bay and Lydd. An agricultural pest which has become commoner with the lack of grazing in many grasslands. It has taken over many former *Calluna* heaths, being encouraged by heath fires and cessation of grazing. Chain-harrowing greatly reduces its vigour. It can be eliminated by specific herbicides such as Asulox, but these are expensive to use.

Common in all adjacent counties and in N. France.

THELYPTERIDACEAE

Thelypteris Schmidel.

T. palustris Schott Marsh Fern. 15, 16. N.

In fen and fen carr. Very rare and local now, but still plentiful at 4) Ham Fen, 11) by a pond E. of Edenbridge, 13) by lake in Angley Wood, Cranbrook⁴³, and 15) by the Open Pits on Denge Beach. Formerly in 7) North Cray, and in 4) at Wingham⁴⁴ and Sturry.

Oreopteris Holub

O. limbosperma (Bellardi ex All.) Holub Lemon-scented Fern. 15, 16. N.

Damp heathy woodland rides on acid soils, and in boggy hollows in woods: frequent locally in the High Weald 13); also as follows:

1) [JoydensWood, one large plant in valley floor, 1945], MNE [Blackheath, Newman].

10) Parsons Marsh and Scords Wood. S. of Brasted, 1954-1963: not seen 1984. Seal Chart, SW corner, 1954 MNE. Lowest Pond, Ightham Common, 1955 MNE.

11) Ryarsh Wood, very rare in ride, 1945 MNE: not since.

12) 037426 Willesborough Lees, CPSK, 1829: 1944-55! In peaty ditch across bog remnants MNE.

13) Locally frequent from Redleaf Rocks W. of Penshurst, E. to Chittenden Wood: 18 sites⁴⁵.

14) 8935 Knockheath, E. of Tenterden 1956 MNE, damp ride; 9535, Cole Wood, Woodchurch, ES.

Frequent over much of the High Weald of Sussex and on Lower Greensand in Surrey and Sussex. This is a "northern" species which is holding its own well in moist rides, etc, with intermittent horizontal water movement in the soil. Reported in the *Atlas* by EP in three sites in 8) on presumably acid superficial soils in plateau woodlands, but there is no very recent record in 8) since 1982 (grid refs. 1242, 1448, 1646).

ASPLENIACEAE

Phyllitis Hill

P. scolopendrium (L.) Newman. Hart's-tongue. 15, 16. N (and sometimes H).

Woodlands, steep sheltered, shady, sometimes rocky banks, in humid but well-drained situations, on soils usually of fairly high pH; also on old walls and in wells. Widespread and locally common. In the drier N. and N.E. of county mostly confined to stonework, but in the ragstone [and] chalk valleys and scarps abundant in ash, ash-maple, or ash-oak woods. Most plentiful on the ragstone scarp woods in 10), 11), and 16) in the chalk valley woods W. of Dover. 8), and in Folkestone Warren 16), about Hythe and the Isle of Oxney, 14). Otherwise very scattered on old walls.

* 1632, near Faversham, Johnson, *Descriptio*. p.31. 116 localities recorded⁴⁶. Common in the High Weald gills and on the western wooded chalk scarp in Sussex; less common in Surrey, rare in Essex, very local in the Boulonnais and Pas de Calais. It is as plentiful in the suitable part of Kent as in S.W. England.

⁴² In the manuscript, records are given for these areas of comparative scarcity, plus district 9) (Ramsgate). There is also a reference to *Pteris cretica* L. 'naturalised in a few places in N.W. Kent'.

⁴³ In manuscript described as 'Fen on site of Tuckers Pond...1945-61, abundant!'.

⁴⁴ The manuscript entry is 'Fen N.W. of Wingham, 1947 MNE; D.A.C.L. 1963'.

⁴⁵ Sixteen given in the manuscript, viz. Redleaf Wood, Penshurst; Ferndale, Tun. Wells; Hayes Wood, Pembury; Furnace Pond, Horsmonden; N. of Lamberhurst Quarter; Furnace Wood; Gt Sandherst Wood; E. side Bayham Woods; N.E. of Kippings Cross; Kilndown Wood; Combwell Wood, abundant; Bedgebury Pinetum; Bedgebury Forest; Angley Wood; Old Park Wood; Sissinghurst Park Wood.

⁴⁶ The manuscript lists, or gives districts for, many of these records.

Asplenium L.

A. adiantum-nigrum L. Black Spleenwort 15, 16. N.

On old walls: widespread but not really common. On shingle under bushes on Denge Beach. Most common on old ragstone walls, from Westerham to Ashford. 10), 11), & 12): rarer elsewhere. About 70 sites recorded, mostly on old churches or in churchyards. Rare on natural ragstone outcrops on lane banks (eg Westerham and Sundridge), and on Wealden Sandstone (eg Cowden Furnace Pond).

*1629: Gillingham, Johnson, *Iter*, p. 24. Sparsely in all adjacent counties and the Pas de Calais.

[A. obovatum Viv. Lanceolate Spleenwort. [16]. Extinct N.

Formerly on 13) Hungershall Rocks at Tunbridge Wells, and possibly then on other rocks in Kent nearby: Forster, *Fl. Tonbr.* Recorded (Herb. Buddle) at Tunbridge Wells as early as 1700, but no county is specified, and this may have referred to the High Rocks on the Sussex side. WW Reeves (c. 1885), said it was extinct on the Kent side by then (due to tree felling) at Hangershall (sic) Rocks, though formerly plentiful, but still existed on the Sussex side (i.e. on the High Rocks). Not reported reliably since then in either Kent or Sussex. It is long extinct in Dorset, and the nearest sites now are in W. Somerset and Devon.

These Wealden occurrences were strange ones so far east for this highly oceanic and maritime species, but are well authenticated by specimens from the Tunbridge Wells area].

[A. marinum L. Sea Spleenwort [15]. Extinct N.

Apparently native formerly on the cliffs at Dover (*1633 ,Gerard *emaculatus*, T. Johnson, p. 1143.) No specimens are known to exist however. In H&M, Rev. C .H. Fielding reported it at Dover but it has probably been extinct for a very long time]. The nearest sites today are in the Isle of Wight and on the E. Dorset cliffs.

A. trichomanes L. ssp. quadrivalens D. Meyer. Maidenhair Spleenwort. 15, 16. N.

On old walls; rather common, on old churchyard stonework, and on other walls in the ragstone belt in 10), 11), & 12). (49 localities recorded in these three districts): rare in the High Weald 13) & 14), Romney Marsh 15) and in N. Kent 2): scattered elsewhere: 86 localities known in total. Not seen recently on natural rocks in Kent. All the Kent specimens seem to be referable to the ssp. **quadrivalens** D. Meyer, ssp. **trichomanes**, a plant of more acidic rocks and walls, does not seem to occur in the S.E. of England, but in Wales and Cumbria.

*1597, Gerard *Herbal*, p. 985.

Occasional in Surrey, Sussex and Hants: rare in Essex and Pas de Calais.

A. ruta-muraria L. Wall-rue. 15, 16. N.

On walls, both of stone and brick, and on ragstone rocks by lanes (e.g. Boughton Monchelsea). Rather common throughout the county: abundant, especially on stonework in the ragstone belt: all districts. Only unrecorded in 51/36, 37, 61/07 & 61/02.

*1597: Dartford, Gerard *Herbal*, p. 983.

Frequent in the adjoining counties and in the Pas de Calais.

A. septentrionale (L.) Hoffm. Forked Spleenwort. 15. N.

One plant found on a brick bridge at 15) Brenzett by Mrs. B. Burt c. 1983; (1984!): no longer present in 1990. No doubt of natural origin from a spore which must have travelled a long way, but far beyond its normal western and northern range in Britain: a remarkable find by Mrs Burt.

Ceterach Willd.

C. officinarum Willd. Rustyback. 15, 16. N.

On old walls; rather frequent on the ragstone belt in mid Kent, and in 8), rare elsewhere: 34 sites recorded in 1), 4), 6), 8), 10), 11), 12), & 13). It can occur in non-calcareous walls with mortared joints.

*1640: Strood, Parkinson, *Theatrum Botanicum*, p. 1045.

Rare in adjacent counties, and in Pas de Calais on natural Devonian limestone (Vallée Heureuse, Rinxent).

WOODSIACEAE**Onoclea L.**

O. sensibilis L. Sensitive Fern. 16. H

Alien, rarely naturalised in damp places.

10) St. John Jerusalem, naturalised by stream, Sir S. Tallents.

13) Redleaf Park, Penshurst, in damp woodland, FR 1947.

Athyrium Roth

A. filix-femina (L.) Roth Lady-fern. 15, 16. N.

Damp or sheltered places in woodland, hedge-banks, fen carr; frequent to abundant as a whole S. of the chalk escarpment. Local in the Eocene woodlands of 1) and the S. part of 3): very rare in 2) and 4): in 15) only at the Open Pits on Denge Beach: absent in 9); scattered in valleys and in plateau woods in 5) - 8), especially where there are areas of acidic superficial soils: frequent in the damper woods on the Lower Greensand In 10), 11), 12) and 16), but scarce on Gault and Weald Clay except in sheltered valley woods: most abundant on the gills of the High Weald in 13) and 14). 124 localities recorded in total by me.

*1746: Chislehurst, Blackstone p 21 *Spec.Bot.*

Frequent in suitable places in the adjoining counties and in Pas de Calais.

Gymnocarpium Newman

G. dryopteris (L.) Newman .Oak-fern. 15. H or N?

*1970, 8) West Wood, Lyminge Forest, 1343 and 1443. Mrs L. B. Burt: Mrs B Nash.

It is well established now (1980?)⁴⁷ in the valley in the conifer plantations here, on acid humus, and either introduced originally with young trees, or a long-distance colonist by a spore. Not yet found in any other county of S.E. England, nor in Pas de Calais: frequent locally in Wales and N. Britain.

(**G. robertianum** (Hoffm.) Newman: occurs on chalk scree in a ravine at Bignor in W. Sussex, but has never been reported for Kent).

Cystopteris Bernh.

C. fragilis (L.) Bernh. Brittle Bladder-fern. 15, 16. H or N?

Either native, or more likely of horticultural origin, on damp mortared walls: rare.

5) Chevening Park, *K. Atlas*.

8) Olantigh Park, *K. Atlas*.⁴⁸

11) Ragstone walls, E Malling; Loose.

DRYOPTERIDACEAE

Polystichum Roth

P. setiferum (Forsskaol) Moore ex Woynar. Soft Shield-fern 15, 16 N.

Steep banks, rocks, slopes in sheltered, humid woodlands: shaded hedge-banks and sides of deep sunken lanes, on base-rich, humus-rich soils.

Widespread, except in the drier, flatter, more open parts of Kent, but very rare N. of the North Downs. *c. 1730: Holloway, E. of Chislehurst, Rand (BM). Locally frequent in 10) and 11) on ragstone scarps and lane banks, and in sheltered valleys and tracks in woodlands in the chalk valleys in 8). Local in 12) and 16). Occasional in the western High Weald in 13), commoner eastwards in 14). Locally common in Sussex, Surrey and Hants, rare in Essex and Pas de Calais.

P. aculeatum (L.) Roth Hard Shield-fern 15, 16. N.

In similar habitats to the last species, but usually in rather drier, better-lit situations, and often with it, but less frequent; occurs in less sheltered, less base-rich sites, and more often on churchyard walls and dry hedgebanks than the last (Map).

1) Hayes churchyard: S. of Locks Bottom: Scadbury Park.

3) S. of Fordwich;

6) Lane above Otford;

⁴⁷ This suggests that Francis Rose had taken the status from Eric Philp's *Atlas of the Kent Flora* (1982) ('now well established'), and was seeking to confirm what this meant in terms of dates. The manuscript pre-dated the finding of this species in Kent, but refers to the possibility of its being found in alderwood flushes or stream banks in the High Weald – whereas the eventual find was, as indicated, not likely to be related to long-term native survival.

⁴⁸ The only record given in the manuscript is for 10) Darent Steps, Westerham, RAC.

- 7) N. of Westwell; 8) frequent in area W. of Dover;
 10) Crockham Hill; ragstone scarp W. of Plaxtol;
 11) Elmstone Hole; Hever; Frittenden;
 12) W. of Great Chart; E. of Bilsington; Sellindge churchyard.
 13) and 14) High Weald, frequent, 21 sites; 16) Hythe: Saltwood.

A much more rigid and glossy fern than the last, with broader, more leathery pinnae curved towards the frond apex.

*1700 — about Tunbridge Wells- Doody and Dubois. In all the adjoining counties, and in Pas de Calais.

Cyrtomium C. Presl

C. falcatum (L.f.) C. Presl House Holly-fern. 15. H.

Established on an old wall, Sheerness, 9274, *K. Atlas*.

Dryopteris Adans.

D. filix-mas (L.) Schott Male-fern. 15, 16. N.

Woodlands of all types, hedgebanks, scrub, and damp walls: very common throughout Kent. In flat, more cultivated areas it is largely confined to walls.

*1629: near Hoo, Johnson, *Iter*, p.8. 380 recorded sites.

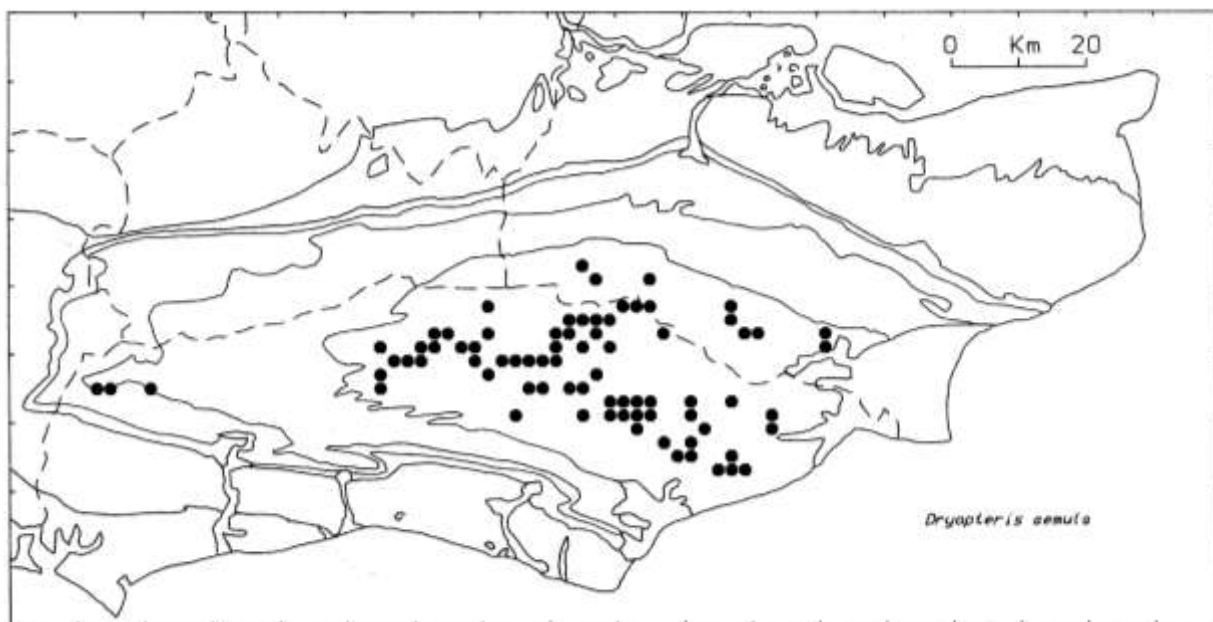
D. filix-mas x D. cristata?

A plant resembling this occurred with the supposed parents at Denge Beach Open Pits in 1952 (**MNE**).

D. affinis (Lowe) Fraser-Jenkins ssp. **affinis**. 15, 16. N.

The **D. affinis** complex is a series of hybrid forms derived from crosses between **D. oreades**, **D. caucasica**, and at least one other parent. The complex is variable, but has not been studied in depth in Kent. The complex is known through most of Kent, principally in sheltered woodlands on humus-rich soils: it includes, besides ssp. **affinis**, also ssp. **cambrensis** Fraser-Jenkins, and ssp. **borreri** (Newman) Fraser-Jenkins⁴⁹. The complex is commonest in the High Weald, and is rare in 4), 5), and 9).

D. aemula (Aiton) Kuntze Hay-scented Fern. 15, 16. N.



⁴⁹ The manuscript gives a full-length entry for **Dryopteris borreri**, as a plant of 'Woodlands, on moderately acid soils in sheltered, fairly humid situations: uncommon as a whole, though widespread, but locally very abundant in the gills of the High Weald in 13) and in 14) where it is often more abundant than *D. filix-mas*. 63 localities. *1952, Dungeness, J. Pugh & F.R. Locally frequent in Surrey, common in the High Weald of Sussex, very rare in Essex and Pas de Calais. The truncate pinnules, shaggy rachises, and black spots beneath the pinnae at the junction with the rachis, distinguish this fern from *D. filix-mas*.' [Records or record totals are listed.]

On steep, deeply-shaded banks on acidic sandy loam, or on sandstone rocks, in 13 localities in the gills of the High Weald in 13) and 14), usually on N or NW aspects; rare and local, but sometimes locally abundant.

*1899, Fishers' Castle, Tunbridge Wells, W. W. Reeves, H & M, p.426.

This very interesting extreme oceanic (or Lusitanian) species attains its eastern European limit in the High Weald of Kent and Sussex, where it is now known in over 100 sites, mostly in deep gills, or on sheltered sandrocks on Tunbridge Wells or Ashdown Sand and also (much more rarely) on steep slopes in woodland on the acidic Hythe Beds in W. Sussex. On the High Weald it is now recorded from Warninglid in W Sussex, east to Brede in E. Sussex and near Tenterden in Kent. It occurs associated with such species as *Blechnum spicant*, *Dryopteris dilatata*, *Luzula sylvatica*, and the bryophytes *Mnium hornum*, *Dicranum scoparium*, *D. majus*, *Plagiothecium undulatum*, and *Diplophyllum albicans*, under the shade of oak, beech or birch, also often associated with holly or yew. Westward from the High Weald it occurs rarely in the New Forest and in S. Wiltshire, and then not again until Monkton Wyld is reached on the Dorset border with Devon. It is frequent in Devon, W. Somerset, and Cornwall. It is quite unknown in Surrey, Essex, or in any areas N. of the Thames until NE Yorkshire is reached, but frequent locally in Wales.⁵⁰

D. cristata (L.) A. Gray Crested Buckler-fern. [15]. N.

In scrub on fen peat on one of the Denge Beach Open Pits only. One plant was found here, 1952-62 **MNE**. J. M. Cannon tells me he also found c. 12 plants in another fen in the Open Pits area in 1952. A very rare species now in Britain.⁵¹

D. carthusiana (Vill.) H. P. Fuchs Narrow Buckler-fern. 15, 16. N.

Alder and Willow carrs, flush areas in woodlands, flushed sphagnum bogs, fens, lakeside swamps, wet woodland generally, occasionally in drier woodlands. Frequent locally in suitable habitats in 1), 3), 12), 13), and 14), especially in the High Weald and on Folkestone Sand: present but rare elsewhere in 4), 5), 8), 10), 11), and 15). 92 sites known.

*1816: Forster, *Flor. Tonbr.* p. 119.

Locally frequent in much of S.E. England but rare in Essex and Pas de Calais.

1) Holwood Park; Keston Bog; Ravensbourne Estate, Keston; Petts Wood; North Cray; Joydens Wood.

3) Frequent in the southern part of the Blean Woods.

4) Near Preston church.

5)⁵² Valley bottom, Bombers Farm woods, Cudham: P. Greenfield; and N.W. of Westerham Hill on clay.

6) Very rare. 5660; 5862, Woodlands, Knockmill, Church Wood plateau gravels.

8) Covert Wood, Miss D.A.C.L. Wood on chalk loam, E. of Oulton Farm, Hougham. Fanscombe Wood, Wye, in bottom.

10) Parson's Marsh, P. Greenfield. Ightham Common Ponds. Seal chart, S.W. corner, **MNE**. Spring Hill, Whitley Forest, R.A.C.

11) Dike E. of Tonbridge; SE of 'Woolpack', Yalding, by pond; Starvecrow Hill Woods; Sandway Bog, Lenham.

12) 6 localities, Hothfield to Gibbons Brook.

13) 44 localities.

14) 12 localities.

15) Fen on Denge Beach.

⁵⁰ The account as revised by Francis Rose omitted details of sites. In view of the interest of such details, these are reproduced below from the unrevised manuscript.

13) Ashour Wood, Bidborough, 1945 **MNE**, on N. scarp in beechwood with *Ilex* and *Castanea*, locally abundant. Fishers Castle (= Culverden Glen) Tunbridge Wells, W.W.R. (*vide supra*): 1951, JAP; 1952, one plant! Gill in E. part of Bayham Woods, 1949-1960, **MNE**, about 12 plants. Seen by JP & D.S. - 1984. Brenchley, Storr; probably = side of ravine in wood N.E. of Kipping's Cross, 1941, J.R.W; to 1952 at least! 3 plants. Angley Wood, Cranbrook, under oaks in gill, c.100 plants, 1957, T.D.V.S. and F.R., **MNE** and up to 1963.

14) Robin's Wood, Cranbrook, 1951; c.100 plants in gill, 1955-62 **MNE**. Babbs Gill, Benenden, c.4 plants, 1949-1956 **MNE**. Parsonage Wood, Benenden, 41 plants, 1957-58 **MNE**. Gill SW of Church, Benenden, 6 plants, 1956 **MNE**. Gill S. of Pigeon Hoo, S.E. of Tenterden, 1 plant, 1962 **MNE**; the most easterly European locality.

⁵¹ The manuscript adds that 'It was rediscovered by me in a fen in the Somme Valley near Abbeville in N. France in quantity in 1958; it had not been recorded in N. France before this since about 1864. The Kent plant may have been derived from a spore blown over from the Abbeville colony. The Kent habitat resembles some of the Norfolk ones in being fen that is acidifying and becoming invaded by *Sphagnum squarrosum*, possibly an incipient raised bog stage in succession.'

⁵² At this point, the typed text becomes somewhat garbled, with the wrong district numbers assigned to this entry and the next, whose number (6) is not mentioned in the earlier lists where present. The account then stops. It is unclear why the records stop here, as this does not appear to be part of a revision to pass over areas where the species is common. Accordingly, the rest of this entry has been supplied here from the manuscript.

D. dilatata (Hoffm.) A.Gray. Broad Buckler-fern. 15, 16. N. (map)⁵³

Woodlands, hedgebanks and ditchbanks. Very common except in the most open, dry and treeless areas; in all districts but most abundant in hilly, wooded areas. Common in all adjoining counties and in N. France. Best distinguished from **D. carthusiana** by the more triangular frond outline, convex pinnules, and acute dark-centred rachis scales.

BLECHNACEAE

Blechnum L.

B. spicant (L.) Roth Hard-fern. 15, 16. 31/52.

Native. Woodlands of oak, beech, birch or pine, on acid or less podsolised soils, where humidity and soil moisture are relatively high but drainage good. In the drier districts on sheltered sites such as N. slopes, valleys, or streambanks: most abundant on steep banks, often with *Vaccinium*, *Calluna*, *Deschampsia flexuosa*, *Mnium hornum* or *Dicranum majus*. Abundant throughout the High Weald of 13) and 14) in at least 106 localities. Common on the plateau drifts over the Hvtthe Beds and on the Folkestone Sand in 10 and the western part of 11), becoming much rarer to the E. and in 12). Very rare in the chalk districts, but present in a few woods on Pliocene loams and Eocene gravels in 7) and 8). Now rather rare in 1); common in S.W. of 3), on the Eocene gravels and sands of the Blean.

Almost absent on heavy clay soils and in the marsh districts 2), 4), and 15), except for one locality in acid fen on Denge Beach. 174 localities recorded.

*1725: Shooters Hill, *Herb. Dill.*

Common throughout the High Weald and Lower Greensand areas of Surrey and Sussex: very rare in Essex (? six localities now). Very local in the forests on the Wealden strata in the Pas de Calais. A species of western tendency in S. Britain.

(map)⁵⁴

AZOLLACEAE

†**Azolla** Lam.

†**A. filiculoides** Lam. 15. 4/52 H.

Alien, introduced from N. America: it occurred in Britain in an Interglacial period (Godwin, *Hist. Brit. Flora*, p. 287). Naturalised in ponds and dikes, plentifully in 4), rarely in 2). Rarely naturalised in Surrey, Sussex and Essex.

2) Pond and dike near R. Medway, below Aylesford, E.G. Philp, **MNE**.

4) Monkton, Lady Davy and Miss Vivian, B.E.C. Rep.*1921, p. 404. Ditches E.N.E of Sandwich, Miss A. Stone, det. J.E. Little, B.E.C. Rep. 1925, p. 908: possibly introduced here as a deterrent to *Anopheles* breeding. Minster marshes, in dike, 1955. Dikes, Worth Minnis, 1946; Ham Fen, 1946-56 **MNE**; Woodnesborough marshes, 1946. Dike, Minnis Bay, 1960, Mrs. B. Dodds. Pluck's Gutter, 1962, KFC. Dike, Grove Ferry, 1961. J.E. Little comments (vide supra): "The Sandwich Entomological Laboratory has been experimenting on the possible use of *Azolla filiculoides* as a deterrent to *Anopheles* breeding: this may account for the appearance of the plant near Sandwich."

Pinopsida⁵⁵

PINACEAE

[**Pseudotsuga menziesii** (Mirb.) Franco, **Picea abies** (L.) Karst, **P. sitchensis** (Bong.) Carrière, and **Larix decidua** Mill. are all widely planted in Kent, but none appears to have yet become naturalised (from self-sown seed).]

⁵³ No map has been found.

⁵⁴ No map has been found.

⁵⁵ From this point, there is no longer any revised typescript available, so the text given is taken first from Francis Rose's checklist intended for use in or with the Flora; and then the corresponding text from the manuscript which continues as a whole up to and including *Taxus baccata*. After then, only fragmentary parts of the manuscript are known and these are included in checklist sequence, as far as this goes. *Pseudotsuga menziesii* etc. and *Tsuga heterophylla*, however, are not given in the checklist.

Pinus L.**P. sylvestris L.** Scots Pine. 15, 16 D, (Natd.)

Possibly some populations are of native origin, though most are planted; the species is however thoroughly naturalised and common now on the acid sandy and gravelly soils in 1), 10), 11) (about Wrotham Heath, Platt, and Mereworth Woods), 13), and 14). Elsewhere it occurs widely as planted groups of trees, and more and more, as planted forests.

The first evidence from Kent is from peat deposits near Frogholt (Newington) and Wingham, in which the pollen is fairly abundant between horizons dated by Radiocarbon dating between about 1700 BC and 200 AD (Godwin, *Sonderdruck aus den Veröffentlichungen des Geobotanischen Institutes der Eidg. Techn. Hochschule, Stiftung Rübel, in Zürich*, Heft 37. It is clear that it occurred as a native in Kent until at least Roman times; Godwin suggests that the bulk of the pollen in these sites may have come from the acid sandy country of the High Weald. Some of the High Weald Populations of today may well be descended from native stock, but it now seems unlikely that the situation there can be fully sorted out, as so much planting has occurred over a long period. Abundantly naturalised, and possibly in part native, on the Sussex High Weald and the Sussex to Surrey Lower Greensand, and on the Bagshot Beds and Lower Greensand in Surrey, certainly not native in Essex or Pas-de-Calais. Seen in all districts except 2), 9) and 15).

Tsuga heterophylla⁵⁶

13) a few small plants, apparently self-sown from a plantation, Kilndown Wood, Goudhurst, 1960, FR & CAS.

CIIPRESSACEAE

Juniperus L.**J. communis L. subsp. communis** 15, 16 12/52 N Juniper

Native. Old chalk grassland and scrub, dry acid heathland. Formerly very common and widespread on the downs and heaths of Kent, this species has become much rarer this century, in numbers both of localities and of individuals, and since 1944 it has been seen in only 23 recorded localities (21 on chalk, 2 on heathland on acid soils). In most of these even it is unhealthy and appears to be dying out, and may before many years have passed be extinct in the county, unless effective conservation measures can be found and implemented.

Its disappearance from heathland habitats is probably partly due to cultivation and repeated heath fires; on the chalk, spread of coarser grasses and scrub on cessation of grazing, with consequent failure of regeneration, as well as fire, are undoubted contributory causes. At present, however, the senescent or dying condition of nearly all the remaining small colonies, and their failure to regenerate or even to produce much seed or even cones, can be correlated with the abundant presence of the parasitic fungus *Lophodermium juniperinum* on the bushes; but whether this is cause and effect is not yet definitely proved. The bushes on the seacliffs, though stunted, possibly by exposure, appear to be still healthy and free from any obvious disease. *1562: "growth most plenteously in Kent" Turner, *Herball*, pt. 2, p.25.

It is still locally plentiful at a number of sites on the chalk in Surrey and W. Sussex, but in these counties the colonies are similarly senescent in appearance for the most part and do not appear to be regenerating effectively. It is now very rare indeed on the Surrey heaths, and has apparently now become extinct in Ashdown Forest, its only recent E. Sussex locality. It has long been extinct in Essex. In Pas de Calais and elsewhere on the N. French chalk downs it is still abundant and appears to be fairly healthy and regenerating well. It is worth noting that two Hertfordshire colonies near Hemel Hempstead are still healthy and regenerating freely: these are not far from the main line to Birmingham and the local gas works; is it possible that chemicals present in the fumes from these sources have a toxic effect on the *Lophodermium*, or whatever other pathogenic organism may be killing the plants elsewhere? The matter needs much more close study.

5) Hangrove, S.E. of Downe, 4 bushes, 1963.

6) Whitehill, Shoreham, c.40 bushes, 1952. Purvil Wood, E. of Harvel, about 6 bushes, 1964, and several dead ones. Down N. of Crookhorn Wood, Snodland, 1946, 8 bushes: 1958, 2 bushes.

7) Burham Downs above Church, 2 bushes, 1946; ½ mile to N.W., 2 bushes, 1963. Bluebell Hill, one bush, 1964. Westfield Wood E. of Lower Bell, 3 bushes, 1944: not refound, 1950. Queendown Warren, several bushes, 1946: 1963, 1 bush. Above Westwell, one bush, 1962, E.S.

8) Juliberry Downs, Chilham, rare, 1945: gone, 1960. N. of Crundale Church, about 6 bushes, 1958. Longport, Crundale, 1 bush, 1954. Fanscombe Wood, Wye, several bushes becoming overgrown, 1959. Yocketts Bank,

⁵⁶ Authority and status not given; not in checklist, but if it had been, then Stace 2nd edition (applicable when checklist was prepared) would have placed it before *Pinus sylvestris*.

Waltham, 2 old bushes in dense scrub, 1947; 1963. S.W. of Petham, 1949-59, 3 bushes. St Margarets Bay, cliff edges to S., 1945; to N., 1958. Langdon Bay cliff top, 7 bushes, 1953. Shakespeare's cliff edge, 1955.

10) Toys Hill, 2 bushes in heathland, 1952-61.

13) Southborough Common! 33 healthy bushes, 8 dying, 10 dead, all infected, 1960, C.A. Stace.

[Old records for the Juniper Pug moth (*Eupithecia sobrinata* Hubn.) exist for 1) Blackheath; 6) Shoreham; 7) Westwell; 8) Crundale; 11) Watlington; 14) Sandhurst. It is still found at Shoreham, Westwell and Crundale, so I understand.]

TAXACEAE

Taxus L.

T. baccata L.⁵⁷ 15, 16 38/52 (as a native, or probably so) Yew.

Native. Woodlands on well-drained soils on chalk, sand, or sandy loam; abundant on the chalk as far east as the Wye area, on which substratum it forms pure woods about Otford, Snodland, Borley, and Crundale, and an important colonist of chalk grassland and scrub in many places: also common as a sub-dominant beneath the beech canopy in chalk woodlands; much rarer and scattered E. of Wye and possibly not native east of the Canterbury-Dover road, although not uncommon in plantations: quite common on the Lower Greensand in 10) and 11), both on the ragstone escarpment and on the podsolised soils on "head" on the Hythe Beds plateau: rare on the Folkestone Sand. Common in the High Weald of 13), in gills and on steep rocky banks on sandstones, much rarer in 14). It occurs quite frequently even in woodlands on the Gault and Weald Clay as scattered trees, but probably always where patches of lighter drifts or seams of sandstone occur. Not uncommon on the Eocene Sands and Gravels in 1), 3) 5)-8), 10)-14), and very much at home in Kent: but equally certainly planted in many places. The churchyards of Kent contain many huge specimens, no doubt originally planted: those at Ulcombe and Newington near Folkestone are noteworthy.

It is common on the chalk of west Sussex and of Surrey, forming pure woodlands as at Kingley Vale and about Boxhill, but rarer on the eastern South Downs. It is common on the Sussex High Weald, especially in gills on the sandstone, and in many localities on the Lower Greensand in both those counties. In Essex and East Anglia it does not appear to occur except as a planted tree. It is unknown today, surprisingly, in Northern France, in spite of the extensive chalk areas, north of the Seine Valley cliffs about Rouen.

Only apparently natural localities are listed below, unless stated.

1) Keston Common: Hayes Common: Scadbury Park: Holwood Park: Spring Park Wood: Crofton Heath: Roundabout Wood: Shooters Hill Woods: Abbey Wood: Bourne Wood, W. of Swanley: Farningham Wood.

2) Self-sown on ruins, S. of Oare Mill Pond. Love Lane, Minster, OD; probably planted.

3) 16 Church Wood: 04⁵⁸ Holly Hill, Dunkirk: 05 W. of Radar Stn., Dunkirk: 26 Shelvingford Wood.

5), 6), 7) Very common, forming pure woods in places.

8) 04 S. of Longport, Crundale. 04 The Junipers, Wye, rare. 15 Whitehill Wood. 15 Gorskey Wood. 14 Harts Wood, Upper Hardres⁵⁹. 05 & 15 Denge Woods, Petham. 15 Bridge Hill. 14 Yockletts Bank. 24 E. of Wolverton. 13 Wood N. of Beachborough. 24 Staffords Wood. †Tilmanstone; †Goodnestone Park. †Temple Ewell. 14 E. side Lynsore Bottom. 34 Eastling Wood.

10) 45 N.W. Slope of Toys Hill. 55 Scarp, Hubbards Hill. Rooks Hill; Wilmott Hill. Bitchet Common.

11) Scarp N.W. of Plaxtol. Comp Woods plateau. Swanton Valley. Oaken Wood. Allington Wood. Kings Wood plateau. Scarp N. of Hunton.

W. Wood on Weald Clay 2m N. of Tonbridge. Underriver.

12) Park Wood, Bilsington.

13) Frequent: 22 localities.

14) 73 Robins Wood, Cranbrook; Parsonage Wood, Netterhall Gill, Benenden and Babbs Gill, Benenden. 83, 93.

Magnoliopsida

MAGNOLIIDAE (Dicotyledons)

LAURACEAE

⁵⁷ Not in checklist.

⁵⁸ In error for [TR]06.

⁵⁹ Queried in text.

Laurus L.

†**L. nobilis** L. (Garden outcast). Bay. H. [no surviving account]

ARISTOLOCHACEAE

Aristolochia L.

†**A. clematitis** L. Birthwort. D. [no surviving account]

†**A- rotunda** L. Smearwort. D. [no surviving account]

NYMPHAEACEAE

Nymphaea L.

N. alba L.⁶⁰ White Water-lily. N.

Localised records for district 15:

Royal Military Canal at Hythe (tetrads **TR13M** and/or **13S**) [L.J. Margetts]; Royal Military Canal, Kenardington (tetrads **TQ93Q** and/or **93V**) [E.S.]; Appledore (tetrads **TQ92P** and/or **92U**).

Nuphar Smith

N. lutea (L.) Smith Yellow Water-lily. N.

Localised records for district 15:

Surprisingly rare in this district and not recorded for the main Marsh area. Recorded: west of Appledore (tetrads **TQ92J** and/or **92P**); southwest of Small Hythe – possibly same record as “west of Wittersham” in 1955 and 1956 (**TQ888296**).

CERATOPHYLLACEAE

Ceratophyllum L.

C. demersum L. Rigid Hornwort. N

Localised records for district 15:

Largely replaced by *C. submersum* in this district:

TQ82: levels northwest of Wittersham toward Small Hythe in 1958 (tetrads **TQ82U** and/or **82Z**)

TQ83: dykes east of Friezingham (tetrad **TQ83Q**)

TQ92: east of Appledore in 1946 (tetrad **TQ92U**)

TQ93: ditch by Royal Military Canal, Kenardington (tetrads **TQ93Q** and/or **93V**) [E.S.]

TR01: Long Lake, Dungeness in 1950 (**TR0818**) [MNE]

TR02: west of Dymchurch (tetrad **TR02Z**); and 2) disused swimming pool, St Mary's Bay (tetrad **TR02Y?**)

TR03 : Orgarswick in 1946 (tetrad **TR03V?**); dyke south of Aldington Knowle in 1958 (tetrad **TR03S**) [MNE]; and Royal Military Canal at Ham Street (tetrad **TR03B**) [Clive A. Stace]

TR13 : dyke, Palmarsh (tetrad **TR13G**) [L.J. Margetts]; and Royal Military Canal west of Hythe in 1935 (tetrad **TR13M**) [MNE].

C. submersum L. Soft Hornwort. N

Localised records for district 15:

Often filling the dykes where the water is periodically brackish:

TQ83: ditches by the Windmill Channel east of Rolvenden in 1959 (tetrad **TQ83Q**) []

TQ92: dykes east of Appledore in 1946 and 1954 (tetrad **TQ92U**) [MNE]; Snargate in 1939 (tetrad **TQ92Z**) [E.C.W. in B.E.C. Report 1939-1940 p. 294]; commonly fruiting in dyke at Fairfield in 1954 (tetrad **TQ92T**) [J.P.M. Brenan – K]

TQ93: Dyke by lane 1 mile south-east of Kenardington Bridge in 1959 (tetrad **TQ93V**) []

TR01: Dungeness, Hoppen Pits and gravel pits in 1946 (tetrad **TR01U** etc)

TR02: Ditch west of New Romney in 1945 and 1950 (tetrad **TR02M?**); ditch north of Ivychurch (**TR031281**); and moat north of Old Romney (**TR033254**)

TR03: Dykes south of Aldington Knowle in 1958 (tetrad **TR03S**) []; and 2) Orgarswick (tetrad **TR03V?**).

⁶⁰ This account – as with all the following highlighted accounts – is not a transcript, but it is taken from notes made from the Flora, and is limited to botanical district 15. See p.7.

RANUNCULACEAE

Caltha L.**C. palustris** L. Marsh-marigold. N. [no surviving account]**Helleborus** L.**H. foetidus** L. Stinking Hellebore. N. [no surviving account]**H. viridis** L. ssp. **occidentalis** (Reuter) Schiffner Green Hellebore. N. [no surviving account]**Eranthis** Salisb.†**E. hyemalis** (L.) Salisb. Winter Aconite. H. [no surviving account]**Aconitum** L.**A. napellus** L. († in Kent). Monk's-hood. H. [no surviving account]**Consolida** (DC.) Gray**C. ajacis** (L.) Schur Colonist formerly, now †. Larkspur. C. [no surviving account]**Anemone** L.**A. nemorosa** L. Wood Anemone. N. [no surviving account]†**A. apennina** L. Blue Anemone. H. [no surviving account]**Clematis** L.**C. vitalba** L. Traveller's-joy. N. [no surviving account]† **C. flammula** L. Virgin's-bower. H. [no surviving account]**Ranunculus** L.**R. acris** L. Meadow Buttercup. N. [no surviving account]**R. repens** L. Creeping Buttercup. N. [no surviving account]**R. bulbosus** L. Bulbous Buttercup. N. [no surviving account]**R. sardous** Cranz Hairy Buttercup. NLocalised records for district 15: Probably in marshes at Fairfield (**tetrad TQ92T**). Also at the Midrips (**TR0018**) and west of Hythe (**TR03** or **TR13**).**R. parviflorus** L. Small-flowered Buttercup. N. [no surviving account]**R. arvensis** L. Corn Buttercup. N. [no surviving account]**R. auricomus** L. Goldilocks Buttercup. N. [no surviving account]**R. sceleratus** L. Celery-leaved Buttercup. N.Localised records for district 15: Surprisingly infrequent and only listed for Appledore, by the canal (**tetrad TQ92P?**); Shirley Moor (**TQ93**); Sandhurst Levels (**TQ82**); Small Hythe (**tetrad TQ82Z**); and west of Hythe (**TR03** or **TR13**).**R. lingua** L. Greater Spearwort. N (& H).Localised records for district 15: in all the Hoppen Pits (**TR0718**) and natural fens of Denge Beach, locally abundant in 1962 (!) and previously noted in 1956. Also in shingle workings near the Old School, Dungeness in 1961 (**TR01**).**R. flammula** L. Lesser Spearwort. N.Localised records for district 15: surprisingly very rare, [though Francis Rose stated the account was incomplete] - mainly off the Romney and Walland Marshes proper, at Hexden Channel in 1954 (**TQ82**); ditches southeast of Rolvenden (**tetrad TQ83Q**); and shingle pits near Old School, Dungeness (**TR01**).**R. ficaria** L. Lesser Celandine. N. [no surviving account].**R. ficaria** L. ssp. **ficaria** N. [no surviving account]

R. ficaria L. ssp. **bulbifer** Lambinon N [no surviving account]

R. hederaceus L. Ivy-leaved Crowfoot. N [no surviving account]

Localised records for district 15: Royal Military Canal at Appledore (tetrad **TQ92P?**) [R.G.W. – recent]; Ham Street (*off Romney Marsh?*) [E.S. Marshall]

R. omiophyllus Ten. Round-leaved Crowfoot. N [no surviving account]

R. tripartitus DC. Three-lobed Crowfoot. N [no surviving account]

R. baudotii Godron Brackish Water-crowfoot. N.

Locally common in district 15:

TQ92: Appledore in 1947 (!) [E.S. Marshall]

TR01: Dungeness in 1947 (!) [det. R.W. Butcher – MNE]

TR02: Pit on Romney Warren in 1947 (!) (**TR0826**) [W.J.L.S.]. Dymchurch in 1947 (!) [F.J. Hanbury]. Northwest of Greatstone in 1950 (tetrad **TR02R**) [F.R. det. R.W. Butcher – MNE]. South of Littlestone in old estuary in 1946 (tetrads **TR02S** and/or **02X**) [F.R. det. R.W. Butcher – MNE]. Ditches near Lydd in 1891 [E.S. Marshall – det. as var. *marinus* by H. & J. Groves – BM]. Ditches near Lydd in 1901 [C.E.G.; det. H. & J. Groves as “*godronii*” and by W.H. Pearsall as “*radians* var. *godronii*”, though only *baudotii* fide F.R. (!) SLBI]

TR03: South of Bilsington (tetrad **TR03L?**); and Newchurch (**TR0531?**)

TR13: Royal Military Canal west of Hythe in 1880 (tetrad **TR13M?**) [A. Bennett – BM]; and Palmarsh pits in 1956 (tetrad **TR13G**) [L.J. Margetts det. R.W. Butcher as forma *marinus*].

R. trichophyllus Chaix Thread-leaved Water-crowfoot. N.

Unlocalised record for TR03; otherwise, localised records for district 15: at:

TQ82: Small Hythe (**TQ894298**) [David McClintock]

TQ92: west of Appledore in 1949 (tetrads **TQ92J** and/or **92P**) [P.R.B. and F.R. det. R.W. Butcher – MNE]

TR01: Dungeness

TR02: in ditches northeast of New Romney in 1946 [det. R.W. Butcher – MNE]; ditches at Brenzett in 1945 (TR02D) [F.R.]; gravel pits on Romney Warren in 1959 (**TR02S**); dyke at St Mary's in 1946 (D.H. Kent); and ponds south of Ivychurch (tetrad **TR02I**)

TR13: Dyke south of Lympne (tetrads **TR13B** and/or **13G**)

Subsp. *drouetii* recorded: gravel pits on Romney Warren in 1945 (**TR02S**); and ditch near Selby Farm, south of Lympne (**TR1033**).

R. aquatilis L. Common Water-crowfoot. N.

Localised records for district 15: fairly common, with sites at Northeast of Romney (**TR02**) [Flora of Kent (1899); R.G.W. in *ca* 1950]; east of Hythe (**TR13**) [Flora of Kent (1899)]; west of Hythe in 1958 (**TR03** or **13**) []; north-east of Brenzett in 1958 (tetrads **TR02D** and/or **02E**); west of Old Romney (tetrad **TR02H**); northeast of Old Romney (tetrad **TR02H**); Ham Street (**TR03B**) [C.N.P.]; and east of Appledore station in 1956 (tetrads **TQ92U** and/or **92Z**).

R. peltatus Shrank Pond Water-crowfoot. N [no surviving account]

R. pencillatus (Dumort.) Bab. ssp. **pseudofluitans** (Syme) S. Webster Stream Water-crowfoot. N. [no surviving account]

R. fluitans Lam. River Water-crowfoot. N. – to refind in Medway. [no surviving account]

R. circinatus Sibth. Fan-leaved Water-crowfoot. N.

Localised records for district 15: locally frequent:

TQ82: Sandhurst Levels in 1954 [det. R.W. Butcher – MNE]

TQ92: 1 mile east of Appledore in 1954 (!) (tetrad **TQ92U**) [Flora of Kent (1899)]; and northwest of Fairfield (tetrad **TQ92T?**)

TQ93: Shirley Moor

TR01: Hoppen Pits, Denge Beach (tetrad **TR01U**)

TR13: South of Lympne in 1958 (tetrads **TR13B** and/or **13G**) [det. R.W. Butcher – MNE].

Adonis L.

A. annua L. Pheasant's-eye. 15, 16 5/52 C.

Colonist. Cornfields and waste ground, mainly on chalk soils; formerly common in 6), and frequent in 1), 5), 7) and 8); recorded also for 2), 3), 4), 9) 10) and 11). Now very rare and confined to a few localities in 2), 5), 6) and 8). It is pointless to cite the many old records in detail: only recent ones are quoted.

2) Stone Marshes, 1957, H.M.P. Murton Fm., Graveney, 1950, R. Theobald & R.E.W. Warden Point, 1951, Mrs. Bryson.

5) Chelsfield, G. Spooner. 6) S.W. of Cobham, 1946, J.T. Dodd. S.E. of Cobham, H.M.P. Mounts Road, Greenhithe, 1954, MNE. Cornfield nr. Darenth Wood, 1951, H.M.P. Fawkham, 1953, Mrs. D. Woods.

8) St Margaret's Bay, Radar Station, E.S. N. of Charlton Wood, Bishopsbourne, 1942, B.J.B. & F.R. Kingston, 1950, L.W.W.

Myosurus L.

M. minimus L. Mousetail. 15, [16] 1/52 N, C

Native. Damp arable fields, mostly on sandy soils, and damp sandy or loamy banks near the sea: formerly widespread and locally frequent along the north Kent coastal plain, and recorded for numerous localities in 1)-4), 7)-9), 11)-13) and 16); now extremely rare and only recently recorded in 3) and 4). Similarly rare and decreasing in Surrey, Sussex and Pas de Calais, but still known at a number of places near or along the coast in Essex. *1670; Deptford to Eltham, Ray, *Cat. Angl.*, p. 210.

Recent records:

3) Sandy arable field, Highams Farm, Fordwich, 1950, R.E. Wood; 1951! **MNE**.

4) Deep sandy hollow of dunes near Downs Farm, Sandwich, 1960, Mrs. E. Carlton; not refound in spite of several searches and subject to some slight doubt in the absence of a specimen.

[12] Reported about 1954 by a farm worker at Sellindge to Prof. H. Miles of Wye College, but unconfirmed.)

Aquilegia L.

A. vulgaris L. Columbine. N, H. [no surviving account]

Thalictrum L.

T. flavum L. Common Meadow-rue. N. [no surviving account]

T. minus L. Lesser Meadow-rue. H. [no surviving account]

BERBERIDACEAE

Berberis L.

†**B. vulgaris** L. Barberry. D. N? [no surviving account]

†**B. darwinii** Hook. Darwin's Barberry. H. [no surviving account]

†**B. x stenophylla** Lindley Hedge Barberry. H. [no surviving account]

Mahonia Nutt.

†**M. aquifolium** (Pursh) Nutt. Oregon Grape. H. [no surviving account]

PAPAVERACEAE

Papaver L.

P. orientale L. Oriental Poppy. H. [no surviving account]

†**P. atlanticum** (Ball) Cosson Atlas Poppy. H. [no surviving account]

†**P. somniferum** L. ssp. **somniferum** Opium Poppy. H. [no surviving account]

P. rhoeas L. Common Poppy. N or C. [no surviving account]

P. dubium L. ssp. **dubium** Long-headed Poppy. N or C. [no surviving account]

P. dubium L. ssp. **lecoqii** (Lamotte) Syme C. [no surviving account]

P. hybridum L. Rough Poppy. C.

Colonist. Cornfields and waste ground on chalk: not uncommon in parts of 6), 7) and 8), rare in 5) and 9), a very rare casual in 4) and 11). Local on chalk in Surrey and Sussex, rare in Essex, local in Pas de Calais. *1597: Southfleet, J. Gerard, *Herbal*, p.300.

4) Sandwich Bay, Miss J. Moore. 5) [Nr. Swanley, 1877, J. Groves (BM).] Chalky track N. of Franks, Horton Kirby, PCH. W. of Sutton-at-Hone, WCRW.

6) Frequent in the N. part: 11 localities recorded from Darenth to Snodland.

- 7) Wouldham: Burham: Bluebell Hill: Borstal: Boxley Warren: Hollingbourne: Westwell.
 8) 19 localities from Chartham and Bridge to Mongeham and St. Margarets, but not in the S.W. half of district.
 9) W. of Cleve Court, Minster, 1963. Northdown, L.W.W. [old records at Ramsgate and Margate].
 [11) Hadlow, 1877, W.E. Shrivell (TLS).]

P. argemone L.⁶¹ Prickly Poppy. C.

Colonist. Arable land and waste ground on chalky and sandy soils: widely but thinly distributed and rather uncommon.

Locally common in Sussex and Essex, rather common in Surrey and Pas-de-Calais. *1597: Southfleet, J. Gerard, *Herbal*, p.300.

- 1) Eltham: Orpington, W.C.R.W.
 2) Faversham.
 4) Sandwich Bay: N. of Deal.
 6) 11 localities.
 7) Wouldham: Borstal, H.A.S.: Chatham, B. Carter: Westwell, E.S.
 8) 8 localities, all in E. half of district.
 9) Westgate: Birchington, L.W.W.
 11) Wrotham Heath: Ryarsh Sandpits: Allington: Beasted: Hollingbourne: Bethersden, C.N.P.
 12) Hothfield, C.N.P.: Potters Corner, C.N.P.: Sturry, Mrs. J.O.
 14) Tenterden Station: Dungeness, near Lighthouse, Mrs. B.D.

Meconopsis Viguier

†**M. cambrica** (L.) Viguier Welsh Poppy. H. [no surviving account]

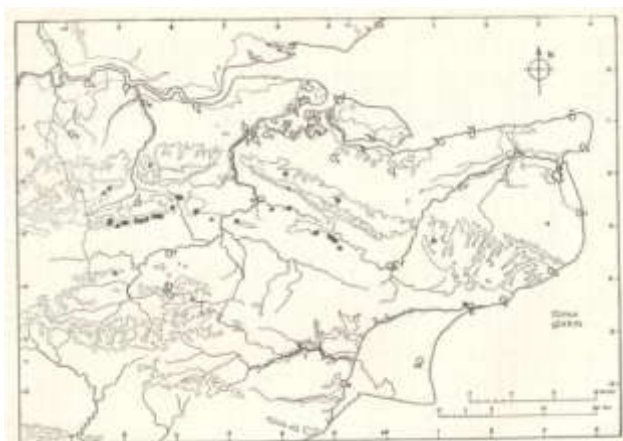
Glaucium Miller

G. flavum Crantz Yellow Horned-poppy. N [no surviving account]

[The checklist continues through FUMARIACEAE, PLANTANACEAE, ULMACEAE, which includes:]

Ulmus L.

U. glabra Huds. Wych Elm N, H⁶²



[Then from MORACEAE to CANNABINACEAE, which includes:]

Humulus L.

H. lupulus L. Hop. N

Probably absent as a native and very rare as an introduction. In district 15: in a hedge at Maytham Wharf in 1958 (TQ867277)

[The checklist continues through URTICACEAE, JUGLANDACEAE, MYRICACEAE, FAGACEAE to BETULACEAE, which includes:]

Alnus Miller

⁶¹ This account is taken from a typed copy, probably made in the 1980s and extending to no more than this.

⁶² Map taken from Rose, F. (1955) The new Flora of Kent. *The South-Eastern Naturalist and Antiquary* 60: 9-19.

A. glutinosa (L.) Gaertner Alder. N

Localised records for district 15: Very rare, if not gone, from the Romney and Walland Marshes.
Recorded for Shirley Moor in 1955 (**TQ940320**).

[The checklist continues through the rest of *BETULACEAE*, *PHYTOLACCACEAE*, *AIZOCEAE*, *CHENOPODIACEAE* as far as:]

Chenopodium L.

....

C. rubrum L. Red Goosefoot N

Localised records for district 15:

TQ92: on border of Royal Military Canal, ½ mile south of Appledore in 1959 (tetrad **TQ92P**); and by saline dyke at Fairfield in 1962 (tetrad **TQ92T**) [Mrs Rowlands].

TR02: Littlestone promenade in 1946 (tetrad **TR02X**) [**MNE**].

C. chenopodioides (L.) Aellen Saltmarsh Goosefoot N.

[In manuscript given as:]

Chenopodium botryodes Sm. 15, 16. 10/51

Native. On mud, in brackish marshes and in dikes: rare, but locally very common in 2) in the Lower Thames estuary and the marshes adjoining the Swale E. to Graveney; rare in 4) and 15). This plant is characteristic of drying brackish mud, exposed in late summer by the fall of water level in dikes of the alluvial marshes, and in natural brackish marshes. In wet summers often few individuals can be found, as the seeds do not appear to germinate unless the mud is exposed to the air: in dry summers, the crimson-red fruits may colour the exposed mud over wide stretches.

1st record, 1864: Gravesend, Syme, *J. Bot.* p.253.

2) [Gravesend, Syme] (67 Denton Marshes, abundant, 1949!) 67 Shorne Marshes A.H.W.D. (1944 **MNE**! 1945!). 77 Higham: and 77 Cliffe Marshes A.H.W.D. (abundant 1945-1955! **MNE**). 77 Egypt Bay, N. of High Halstow 1950, **MNE**. 87 St May Hoo, 1952-61. 87 Grain Creek abundant, 1948 **MNE**. 87 Wallsend. 87 Grain Crossing, 1945 **MNE**. 87 Stoke Junction. 87 Port Victoria A.H.W.D. 96 Isle of Elmley, abundant all along coast, 1950-54 **MNE**: 96/97 Minster Marshes (Smith) **MNE**. 06 Isle of Harty, abundant E. of ferry, 1946: 06 Shellness. 06 Capel fleet N. of Harty 1959 **MNE**. 07 Muddy pond, Warden Point, 1949. 96 E. of Conyers Creek, 1956, R.W. Butcher & F.R. **MNE**. Graveney Marshes, 1949, J. Libbey. 06 Ditch near Oare Creek, 1962, H.M.W. 87 North Chetney Marshes, 1961, E.G.P., L.G.M. S. Chetney Marshes (87, 86) 1962, v[ery] a[bandant] in fleets, 86.

4) [Pegwell Bay, H.C. Watson; Stonar, Syme.] 26 Brackish dike N. of Shuart, St. Nicholas, 1962.

15) 02 Brackish marsh S. of Littlestone, 1950 **MNE** (site of the old Rother estuary). 92 Brackish meadows by Fairfield Church, 1962, Mrs K.D.R[owlands]. (sp!).

This species is probably far commoner in N. Kent than elsewhere in Britain, though further search in S. Essex may reveal that it is equally common there; I have seen it myself in Essex at Leigh marshes; and at Stansgate Abbey, E. of Maldon. It also occurs, very rarely, in E. Sussex (Rye Harbour), W. Sussex (Clymping!); on the S. Hampshire marshes; and near Yarmouth in E. Suffolk. In N. France I have observed it in brackish "pans" near the mouth of the Somme.

Seed identified as that of this species was found, together with that of *Atriplex littoralis* and fruit of *Ceratophyllum submersum*, in a Roman occupation site at Finsbury Circus, London; Reid, 1921 (Godwin, p.169): this suggests that it may have extended up the Thames in tidal marshes as far as London in Roman times, though the seeds may of course have been introduced from down stream.

....

C. vulvaria L. Stinking Goosefoot. N

Native on dunes and beaches on the coast: alien in cultivated fields and waste ground inland....[The MS included reference to:] Woolwich Common St.J.M....Old shingle, Willow Tree Farm, Burmarsh Road, Hythe. LJM....Near Boathouse Cafe Seabrook. Mis V. Day....Dungeness CN-P...New Romney JSM]⁶³

[The checklist continues through *CHENOPODIACEAE*, to:]

Salicornia L.

....

⁶³ Taken from Rosemary FitzGerald's notes of the species account.

S. ramosissima J. Woods Purple Glasswort N

Localised records for district 15:

TQ92: Fairfield saline meadows by church in 1962 (**TQ968264**) [Mrs K.D. Rowlands]

TR01: Midrips in 1946 (**TR0018**) [MNE]; Wicks (tetrad **TR01E**)

TR02: Old Rother estuary between Littlestone and Greatstone in 1950 (tetrad **TR02W**).

S. nitens P. Ball & Tutin (= **S. emerici** Duval-Jouve) Shiny Glasswort N

Localised records for district 15: **TQ92:** Fairfield saline meadows by church in 1962 (**TQ968264**) [Mrs K.D. Rowlands det. T.G. Tutin].

....

Suaeda Forsskå ex Gmelin

....

S. maritima (L.) Dumort. Annual Sea-blite. N

Localised records for district 15:

TQ92: Fairfield saline meadows by church in 1962 (tetrad **TQ92T**) [Mrs K.D. Rowlands]

TR01: Midrips (**TR0018**); Wicks (tetrad **TR01E**); South Brooks (tetrads **TR01I** and/or **01J**)

TR02: Dymchurch, south of village between main road and sea wall (**TR0928**)

TR13: north of village by sluice, Dymchurch (**TR127319?**); Seabrook (tetrads **TR13S** and/or **13X**).

[The checklist continues through the rest of *CHENOPODIACEAE*, *AMARANTHACEAE*, *PORTULACACEAE*, to:]

CARYOPHYLLACEA

[genera and species continue to:]

Holosteum L.

[**H. umbellatum** L. (walls of St. Mary's Barracks, Chatham, & casemates of St. Mary's Barracks years ago.). (J. Hepworth, Rochester & District Sketch Guide, 1913)]. Jagged Chickweed

....

Lychnis L.

†**L. coronaria** (L.) Murray Rose Campion H [no surviving account]

L. flos-cuculi L. Ragged Robin N

Localised records for district 15: Hoppen Pits, Dungeness in 1946 (**TR0718**) [MNE] – also present at Dungeness in 1955. Also recorded for the Sandhurst Levels (**TQ82**).

Silene L.

S. italica (L.) Pers. (Introduced originally?). Italian Catchfly. ?N or H

[The MS included reference to:Roadside, Dartford to Green Street Green [J.S. Mill 1863]...Abundant on banks of Mounts Road [Greenhithe], and on adjacent quarry cliffs [F.R. 1945-54]....]⁶⁴

Silene nutans L.⁶⁵

This species has been the subject of immense confusion in the past, both with *Silene italica* Pers. and *S. paradoxa* L., and also with regard to its own (actually very distinct) varieties. Much of this confusion was sorted out by F.N. Hepper in 1951 (The variations of *Silene nutans* L. in Great Britain, *Watsonia*, II, pt. II, 1951, pp. 80-91) but experimental work is still needed. Only the main conclusions, as they affect Kent, are discussed here.

It appears that there are two very distinct taxa in Kent (and in Britain); Heppner gives these varietal status, but these taxa could, in my opinion, equally well be regarded as sub-species or even as species, by analogy with other groups of plants. I have tested plants from Kent populations of the two taxa in cultivation, and they maintain their distinctness.

⁶⁴ As above.

⁶⁵ Given in the checklist as:

S. nutans L. ssp. **smithiana** (Moss) Jeanm. & Bocq Nottingham Catchfly. N.

S. nutans L. ssp. **salmoniana** Hepper N.

The two varieties, with their main distinguishing characters, the 1st records and distributions in Kent are given below.

Silene nutans L. var. **salmoniana** F.N. Hepper 15

Plant slender, radical leaves narrow-lanceolate, acute, attenuated gradually into the petiole, shortly pubescent to very glandular. Capsule 11-14 mm long, carpophores 3-4 mm long, flowers cream or rose-pink.

Synonyms: **S. dubia** Herbich sec. Salmon (1905, J. Bot. Vol. 43: 1918, J. Bot. Vol. 56) non Herbich.

S. nutans L. sec. Moss, non L. in sensu strict.

S. nutans L. var. **vulgaris** Moss (1920, Cambridge Brit. Flora).

Native. Shingle beaches and sandy cliffs.

First recognised as a distinct plant by E.S. Marshall, who collected it at Dungeness beach in 1890; it was however recorded wrongly as **S. italica** Pers. in Fl. Kent, 1899. On chalk downs in Sussex, and in a gravel pit in Surrey.

12) Roadside of A20, E. of Willesborough, C.N.P.

15) Dungeness beach, from near Greatstone and just west of the lighthouse inland to Boulderwall and S. of Lydd: not on the newest shingle where there is no turf or soil. It is very abundant over several square miles, associated with *Teucrium scorodonia*, *Jasione*, *Festuca ovina* ssp. *tenuifolia*, *Sedum anglicum*, *Dicranum scoparium* and *Cladonia* spp. There are several gatherings from here in **BM** and in **MNE**.

13) Hythe shingle beach, 1895, Dickinson: J. Walton, old shingle, Willow Tree Farm, Burmarsh Road, Hythe, LJM 1957.

16) Abundant on cliffs of Folkestone Sand, Shorncliffe, 1955. [Sandgate castle, Dillwyn, Fl. Brit. (probably this)] This is common in stony hollows of sand-dunes in the Pas-de-Calais and at Hardelot, and on the Belgian coast: I have seen very similar plants on gravelly glacial rubble by a stream in Klein Walsertal, Allgauer Alps, Austria.

Silene nutans L. var. **smithiana** Moss 15 Dover Catchfly

Plant much stouter and hairier than var. **salmoniana**, radical leaves broader, ovate-lanceolate to elliptical, blunter, more abruptly tapering into the petiole. Capsule 8-10 mm long. Carpophore 2.0-2.5 mm long. Flowers usually pure white.

Synonyms: **Cucubalus viscosus** L. sec. Huds. excl. diag. et syn.

Silene paradoxa L. sec. Smith, non L.

S. nutans L. sec. Salmon, in sensu strict, non L.

Native. Chalk sea-cliffs and short turf on their summits, very local. First reported in Kent in 1690 at Dover by Mr. Newton in Ray, Synopsis, ed. 1, p.15, as "*Lychnis major noctiflora Dubrensis perennis*".

8) Abundant on the chalk cliffs, and on the short turf on top within a few yards of their edges, from Folkestone Warren to Dover West Cliff, and from Dover East Cliff to just S. of Oldstairs Bay, Kingsdown, more or less continuously. Many specimens in **BM**, **K** and **MNE**, from 1828 onwards.

1) naturalised on old wall, Lessness Abbey, 1948, R.A.B.

This plant grows with *Crithmum maritimum* and *Limonium binervosum* on the ledges of the cliff faces, and in turf of *Festuca rubra* and *ovina* or *Brachypodium pinnatum* on the cliff-tops. A plant apparently identical with this (reputably endemic) British variety is abundant on limestone rocks in open woodland at Urach, Swabia Gura, S.W. Germany. Elsewhere in Britain similar plants occur on the chalk cliffs at Beer in Devon, and in Derbyshire, Denbigh, Caernarvon (Great Orme's Head), Dorset, Knaresborough in Yorks, and on the cliffs on the E. Scottish coast.

S. vulgaris Garcke ssp. **vulgaris** Bladder Campion. N [no surviving account]

S. uniflora Roth (= *S. maritima* With) . Sea Campion. N [no surviving account]

S. noctiflora L. Night-flowering Catchfly. C [no surviving account]

S. latifolia Poirlet (= *S. alba* (Miller) E. H. Krause nom. illeg.) White Campion. N [no surviving account]

S. dioica (L.) Clairv. Red Campion. N [no surviving account]

†**S. coeli-rosa** Godron Rose-of-Heaven. H [no surviving account]

S. conica L. Sand Catchfly. N [no surviving account]

Saponaria L.

†**S. officinalis** L. Soapwort. D [no surviving account]

†**S. ocymoides** L. Roack Soapwort. H [no surviving account]

Vaccaria Wolf

†**V. hispanica** (Miller) Rauschert Cowherb⁶⁶ [no surviving account]

Petrorhagia (Ser. ex DC.) Link

P. nanteuillii (Burnat) P. Ball & Heyw. Childling Pink. (? extinct) N [no surviving account]

†**P. saxifraga** (L.) Link Tunic-flower [no surviving account]

Dianthus L.

†**D. caryophyllus** L. Clove Pink. D [no surviving account]

†**D. plumarius** L. Pink. [no surviving account]

D. deltoides L. Maiden Pink N (? Now extinct as N) [no surviving account]

†**D. barbatus** L. Sweet-William H [no surviving account]

D. armeria L. 15, 16 Deptford Pink.

Native. Dry banks and fields on sand and gravel, usually in full sun: formerly locally common, now quite rare. 1st record, 1629: E. of Gillingham, Johnson, Iter, p.5.

1) railway bank (E. side) N. of Orpington Station, R.W. Hale (1944-1949! **MNE**). [Elmers End, Beckenham, A.G. Davis, 1906 (**MNE**).] S. facing bank on Thanet Sand, S. side of Farningham Wood, 1948, R.A. Boniface (1949! 1950! 1952 H.M.P.) **MNE** (1982! 20 plants. On dump of debris from bombed sites, 495652, 12 plants 1964, S. of Crown Wood Chelsfield, C.A. Vick.

3) Near Canterbury, Hb. Harvey. [Near Harbledown Windmill by Pilgrims Way, 1946, Miss L—. Ploughed, 1948.] Fishpool Hill Wood, in open grassy area by track on sand, near Johnson's record of 1632. 1954-1960! **MNE**.

6) Fawkham, Mrs D.G. Woods. [Coast Guard Stn, Greenhithe, 1862, Hb. Lamb **MNE**.] {Cobham, Maidstone N.H.S. 1848, **MNE**, several old localities.] Luddesdown, 678689 S. of Cobhambury Wood by lane, D.V.S. Woods. 598676 Culery Down Broke, near Fawkham Ch., D.V.S. Woods.

7) By Rainham Park Wood in open grassland on sandy loam, 650810, Mrs. V. Bramby 1951; B. Carter, 1952

8) Hedgebank by church, Lower Hardres, F.M. Webb: Miss J. Kisbet, 1939: L.W.W. 1949: 1958! **MNE**. Also by S.E. corner of Whitehill Wood, → 16/53, 1950, L.W.W.

10) Ightham, F.W.E. Shrivell, 1879 **MNE**. ?Introduced – Wood in garden, Sevenoaks, F.R. Weley.

11) 683492, on gravel bank by Pond W. of railway, E. of Hale Street, E. Peckham, D.E. Kimming 1954; **MNE**. Reported at Straight Mile, Leigh, H.S. Vere-Hodge. [Two colonies S. of W. Malling, Gray, now apparently gone.] [Malling Woods, 1837, C.A. Stevens Hb. Coll. Marl. b.] Between Bethersden and Great Chart, J.E. Chambers, 1924.

14) Copse S.W. of Susans Hill, N.W. of Woodchurch, 927349 after coppicing, 1955 C. Skinner, 1956 E.S.

16) On sandy cliff, W. end of Folkestone Leas, G. Walton: 1947-58! **MNE**. Roadside, Radnor Cliff head to Rivera, Sandgate, 1958, Miss V. Day.

POLYGONACEAE

Persicaria Miller

....

P. amphibia (L.) Gray Amphibious Bistort. N

Localised sites for district 15: in the Royal Military Canal but only west of Hythe (**TQ92**, **TQ93**, **TR03**, **TR13**) and at Dungeness in 1955 (**TR01**). Also off the Romney and Walland Marshes in the Hexden Channel in 1954 (**TQ82**).

....

P. hydropiper (L.) Spach Water-pepper N

Localised sites for district 15: in a ditch south of the road at Potman's Heath in 1956 and 1958 (tetrads **TQ82T** or **82S**); by Hexden Channel at Newenden in 1956 (tetrads **TQ82J** or **82P**); and dyke east of Windmill Channel in 1959 (tetrad **TQ83Q?**).

P. laxiflora (Weihe) Opiz Tasteless Water-pepper. N

[In manuscript given as:]

Polygonum mite Schrank

⁶⁶ Status not given for this, nor for *P. saxifraga* and *D. plumarius* below.

Wet open ground, ditches, ponds, etc.: extremely rare in Kent. 1st record,⁶⁷

- 1) [Lewisham, A.A. BM.] Chislehurst Common, F.J.H. Wet path, Pokeridden Wood Orpington, 1954, C. Swain. **MNE**.
- 2) Near Minster-in-Sheppey F.J.H.
- 11) (Hadlow, Miss Peers "spring field". Is this a reliable record?)
- 13) Marsh below Fishers Castle, Tunbridge Wells, 1 plant, A.C. More. Phytol. N.S. 1. p. 294. Wet ride in Angley Wood, J.P.M. Brenan.

P. minor (Hudson) Opiz Small Water-pepper. N

[In manuscript given as:]

Polygonum minus Huds.

Native. Wet open ground, especially on gravel soils, ditches and ponds: extremely rare.

1st record,⁶⁸

- 1) roadside, Blackheath, 1802, M.S. note on drawing for *Engl. Bot.* 1043: Blackheath, Cooper, Fl. Met., p.48. Chislehurst Common, 1946 **MNE**. 1965.
- 10) Seal Chart, Roper, 1874.
- 11) By Medway near Haysden, Tonbridge, G.E. Shaw, 1938 TLS: **MNE**.
- 12) [Willesborough Leas, rare, 1863, J.S.M.]
- 15) Halfway Bush, Dungeness, in fresh water, 1946. **MNE**.

[Genera and species continue through *Fagopyrum* and *Polygonum* to:]

Fallopia Adams

[Various *Fallopia* species follow, no surviving accounts]

F. dumetorum (L.) Holub Copse-bindweed N

[In manuscript given as:]

Polygonum dumetorum L. 15, 16 Copse Buckwheat

Native. Dry woods on sand and gravel, particularly in coppice of chestnut, birch, etc. where it may only appear at long intervals of years. Rare. It is an annual: after the coppice is cut, the light appears to stimulate germination, of a fair number of seeds and the plants may appear in abundance from seeds which have lain dormant for 10 years or more. This plant should be checked experimentally: its capacity for delayed germination seems to be remarkable and precise factors causing break of dormancy should be investigated.

1st record, 1857, Bysing Wood, Stowell, in Phytol. N.S. II, p.154.

- 1) Abbey Wood, 1862, Hb. Lamb **MNE**; 1863, J.S. Mill; 1927, St. J. Marriott, on a "shell bed" in Blackheath Beds; 1948 G.E. Matthews. Behind Woolwich Cemetery, 1894, A.H.W.D.
- [3] N. side of Bysing Wood, towards Luddenham vicarage, Stowell, loc. cit. Hedge, E. end of Trenley Park Wood, 1875, F.M. Webb, not refound L.W.W., 1948.
- 11) Cuckoo Wood, Sandking, near Maidstone, C. West, 1948 (1948!) **MNE**.
- 12) Potters Corner Woods, Ashford, W.R. Jeffrey; J.G. Baker; E. Scott; C.N.P. 1950; 1950 et seq. (1952), locally abundant! **MNE**. 1960 Mrs B. Dodds. Hedge of lane N.E. of Little Chart, Forstal, 957457, E. Scott, 1952.

[Genera and species continue through *POLYGONACEAE*, to:]

Rumex L.

R. acetosella L. ssp. **acetosella** (**R. tenuifolius** (Wallr.) A. Löve is scarcely a good species). Sheep's Sorrel N
[no further surviving account]

....

R. hydrolapathum Hudson Water Dock N

Localised sites for district 15: Dyke by the Windmill Channel southwest of Tenterden (tetrad **TQ83Q?**)
and ca 1 mile east of Appledore in 1954 (tetrad **TQ92U**).

[Genera and species continue through the rest of *POLYGONACEAE*, to:]

PLUMBAGINACEAE

⁶⁷ Nothing given, but presumably it is the Tunbridge Wells record (1855).

⁶⁸ Nothing given: it is presumably the 1802 note cited. The 1899 Flora of Kent gives Cooper's record (1836) – incorrectly, as the text of *English Botany* (1802) refers to Blackheath, irrespective of the origin of the plant figured..

Limonium Miller

- L. vulgare** Miller Common Sea-lavender. N [no surviving account]
L. binervosum agg. (G.E. Smith) Salmon Rock Sea-lavender. N [no surviving account]
 ssp. **binervosum**. (S.E.Kent, Dover Cliffs). N
 ssp. **cantianum** Ingrouille (Thanet cliffs & saltmarshes). N

Armeria Willd.

- A. maritima** (Miller) Willd. ssp. **maritima** Thrift. N [no surviving account]

[Genera and species continue through ELATINACEAE to CLUSIACEAE as far as:]

Hypericum maculatum Crantz ssp. **obtusiusculum** (Tourlet) Hayek N

Localised sites for district 15: grassland on the golf course north of Littlestone in 1950 (TR0825).

H. tetrapterum Fries Square-stalked St John's-wort N

Localised sites for district 15: Shirley Moor at and south from TQ940320 in 1954; and stream by bridge, Potman's Heath in 1956 (TQ872281).

[Genera and species continue through the rest of CLUSIACEAE to:]

TILIACEAE

Tilia L.**T. platyphyllos** Large-leaved Lime (?N)

[In manuscript given as:]

T. platyphyllos Scop. 16

Possibly native in one woodland: extremely rare. The pollen of this species has been found in peat sealing a Mesolithic site at Addington, by J.P.T. Burchell (see Godwin, H. (1957) *The History of the British Flora*, p.98) and see Burchell & Erdtman (1950) *Nature, Lond.*, **165**, p.411. Indigenous *T. platyphyllos* in Britain. *Tilia* pollen (probably all *T. cordata*) has been found at Halstow (Interglacial), Burchell, 1921 and at Neolithic / Mesolithic levels at Northfleet, Burchell & Pigott, 1939.

1) Chislehurst, Planted GMB

6) Eynsford Village, Planted, GMB

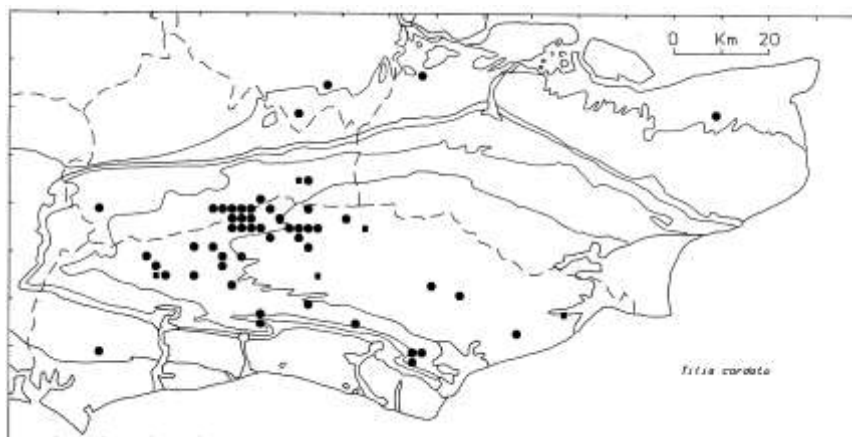
8) Planted, Broome Park, Denton, Miss D.A.C.L., 1960.MNE.

13) W.) About 7 trees, scattered along a stream in a small valley, remote from houses, among native vegetation, Combwell Wood, 1959, MNE, 703337, F. Rose. It is just possible that this is a native relic here; the situation is a very natural-looking wood. 1954, MNE, Goudhurst. Roundabout Woods, Tunbridge Wells, CAS.

†**T. x vulgaris** Hayne (= *T. europea* auct., non L.) **T. platyphyllos** x **T. cordata**. Common Lime [no surviving account]

T. cordata Miller Small-leaved lime. N

[no surviving account, but map exists]



[Genera and species continue through MALVACEAE as far as:]

Althaea L.**A. officinalis L.** Marsh-mallow N

[In relation to district 15:] Abundant in the Romney Marsh and plentiful in adjacent alluvial marshes. Old records: Appledore in 1871 (**TQ92**) [R. Pryor – MNE; Romney Marsh (**TR02**) [R. Pryor – MNE]; and marsh at New Romney in 1909 (**TR02**) [MNE]

Localised (*more recent*) records:

TQ82: south of Small Hythe (tetrad **TQ82Z**); west of Wittersham (tetrad **TQ82T?**); and south of Wittersham (**TQ82X**)

TQ92: west and east of Snargate (tetrad **TQ92Z**); southwest of Appledore (tetrad **TQ92P?**); east of Appledore in 1954 (tetrad **TQ92U**) [MNE]; west of Brenzett in 1945 (tetrad **TQ92Y**) [MNE]; and south of Brookland (tetrad **TQ92X**)

TQ93: S. of Kenardington in 1959 (tetrads **TQ93Q** and/or **93V**) [MNE]; and Shirley Moor, both 1 mile east of Reading Street (**TQ9330**) and at **TQ940320** etc.

TR02: Ivychurch (tetrad **TR02I** etc); Old Romney in 1959 (tetrad **TR02H**) [MNE]; and southeast of New Romney Church (tetrad **TR02S**) [R.A.C. i.e. Ray Clarke]

TR03: south of Ham Street in 1946 (!) (tetrads **TR03A** and/or **TR03B**) [J.S. Mill]; Newchurch (tetrad **TR03F?**); west of Burmarsh (tetrad **TR03V?**); south of Bilsington (tetrads **TR03G** and/or **TR03L**); and south of Aldington (tetrad **TQ03R?**)

TR13: dykes near Redoubt, Dymchurch Road, Hythe (tetrad **TR13G**) [L.J. Margetts]; north of Dymchurch (tetrad **TR13A**); south of Lympne (tetrads **TR13B** and/or **13G**); and sea-front at Seabrook in 1944 (tetrads **TR13S** and/or **13X**) [D.H. Kent].

[Genera and species continue through the rest of MALVACEAE, then DROSERACEAE, CISTACEAE, to VIOLACEAE]

Viola L.**V hirta L.**⁶⁹

15, 16

33/52

Hairy Violet

Native. Grassland and scrub on chalk, abundant and very constant: open woods and banks on ragstone, common: local on Thanet Sand: one locality each on Folkestone Sand and on London Clay in Sheppey. Unknown on other soils. Rare in 1), 2), 4); abundant in 5)–8); rare in 9) and 10); locally common in 11); and 16) on ragstone.

1666*; Charlton Wood etc., C. Merrett, Pinax, p.125.

Common on chalk in Surrey and Sussex; rare in Essex; common in Pas de Calais.

1) S. hedgebank of Farningham Wood, 1949 **MNE**, on Th[anet] Sand. Open bank SE aspect in Scadbury Park, 1959, on Th[anet] Sand. Chislehurst by Sta[tion] GMB.

2) Ash coppice S. of Warden, 1959, **MNE**, 026721, O.D. '56. Old R[ai]l[wa]y, Stickfast Lane, Minster, '58.

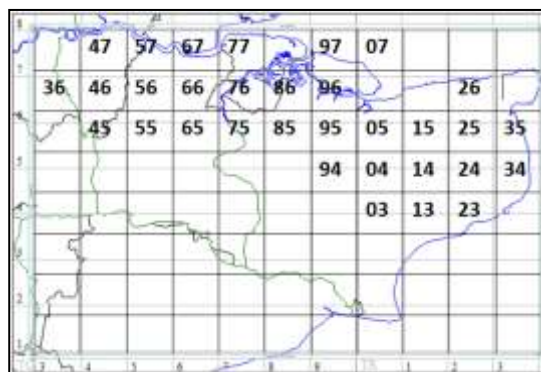
3) Grassland on L[ondon] Clay NE of Rhode Common, 1946.

4) Wood on Thanet Sand, Wenderton Manor, Wingham, 1959, B.N.

5) Downs W of Polhill '47. Chevening Park '50 **MNE** '61. Berry's Green Wood 62. Down NE of Pilgrim Ho[use]

Westerham. Well Wood, W. Wickham, PCH. The Larches, SW of Farnborough. Darwin's Bank, Downe '61, '58. Golf Course, Downe '58, 428608. Birchingbank Wood, Pratts Bottom. Lullingstone Park.

6) Farningham on chalk bank to SE, GMB. Luddesdown (Wrangling Lane) 1939 JBM. Copse SE of Dartford '44. Hogmore Down Wrotham. Birling Downs (Brometum). Ryarsh Downs (Brometum). Above Trosley. Pilgrims Ho[use], Trottiscliffe. Down above Wrotham Water. Downs, Kemsing, N of Ch[urch]. Downs E of Otford. White Hill, Shoreham. Down SE of Farningham. 49. Down SE of Eynsford Sta[tion] 49. Magpie Bottom. Preston Hill E down. Romney St[reet] St JM. Wrotham Hill. Downs N of Ightham. Berry's Maple, Ash, 609369. Down N. of Crookhorn Wood. ... S. of Great Park Wood. Holly Hill Brometum. Maplescombe GMB. Down 1m NW of Kemsing '60. Shorehill Kemsing. White Ash Wood, 611645. Great Crabbles Wood 1936 JBM. Cobhambury Wood 61 HAS. Upper Halling Down. Cuxton. W. of Buckland '61. Down ENE of Priestwood 61. Parvil Wood 64. Mounts Wood. S edge Darenth Wood (Thanet Sand). Northward Hill – grassland on 200' terrace on top, '58. Swanscombe, pit E of Paper Mills 598753 HMP. Moodys Lane, Stone, 5675 HMP.



⁶⁹ At this point, the second volume of the manuscript begins.

7) Bridge Woods '39, JBM. Boarley Warren, '61, '59. Bluebell Hill (P[ilgrims] view 62. Bocley Warren '62. NW Coombe Detling, Purple Hill, '63. QueenDown Warren. Wouldham Downs. Barham Downs. Downs E of L[owe]r Bell '62. Stockbury Hill Wood '60. 813617 E side. Tunbury Wood. Soakham Down '52. Belting Down '54. Hollingbourne Downs. Downs W of Thurnham Castle '61. Downs E of Thurnham Castle 61. Simia field., 59. Down E side Belmont Golf Course 59. Down W of Club Ho[use] Belmont 59. Downs N of Wichling 1/6/58. Lees Park, Sheldwich. Cox Street Downs. Westwell Downs. Hawkins Wood Chilham DHK.

8) The Junipers Wye. Olantigh Plantation '54. Rob Sacks Wood 54. Brook Hillock '45 **MNE**. Giddy Horn, E.N.E., '62. Broad Downs Brook 62. Fanscombe Wood '59. Beech Wood, Wye, '59. Pett Street Down 59. Eggerton Manor. Newgate Scrubs. Yocketts Bank 65. Down S. of Yocketts 59. Crundale Down (Brometum). Postling Downs '45 **MNE**. Arpinge Down spur 2, '59. Downs E of Etchighill '60. 192487. Iffin Wood C. Haes. Wolverton Down. SW of Lydden. Coombe Fm Down Dover & to W. Down S, of Alkham. N pf Pean Newington 48 B.W. The Lynch. Sutton Downs. Temple Ewell Down 65. Woodville. Eastling Wood '59. Free Down '62.

9) Backman's Hill, 1853, A.A. (**BM**).

10) Rooks Hill scarp woods, 565531, CAS: FR.

11) Sandpit S of Cobtree Aylesford, '55 **MNE** (F[olkestone] Sand). Ditton quarries '45 **MNE**. Quarry Wood W. Farleigh 45 **MNE**. Well St[reet] E. Malling (Springhead) '46-'64. Swanton Valley Mereworth. Basted Quarries. Offham Quarries. Scarp E. of East Hall, Boughton Mon[chelsea], '60. Egerton Scarp. Pluckley Scarp. Senacre Wood, Otham.

12) Smeeth Ch[urch] y[ar]d RAC.

16) Lympe Castle Scarp. Scarp W. of Hythe. Postling Green Aldington.

V. hirta L. subsp. **calcareea** (Bab.) E.F. Warburg

15, 16

Native. Chalk downs, frequent. The taxonomic status of this plant is doubtful.

1st records, 1899: Flora of Kent, p.46.

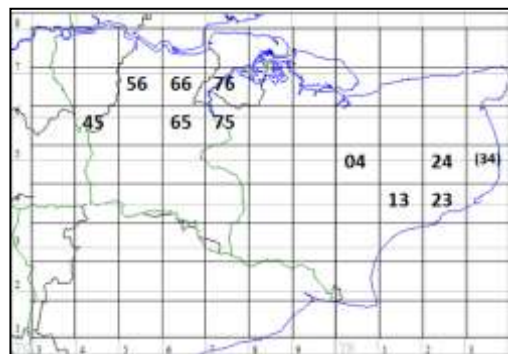
5) SW of Biggin Hill, 1948, Mrs B. Welch. Hogstrough Hill, Brasted, 1946.

6) Maplescombe Vale, WDRW. Downs above Paddlesworth, near Snodland, 1946. Wrotham Downs, E.S. Edees.

7) Downs at Boxley and Boarley Warren, 1945. Burham Down, E.S. Edees.

8) St. Margaret's, 1889, E.S.M. Hb, **BM**. Postling Downs, 1945. Below tumulus, Brook Downs, 1945. Downs behind Folkestone, E.S. Edees. Down SW of Lydden, 1961, Mrs. Thatcher.

16) Folkestone, Mrs. R's HERB.



V. riviniana Rchb. ssp. **riviniana**

15, 16

48/52

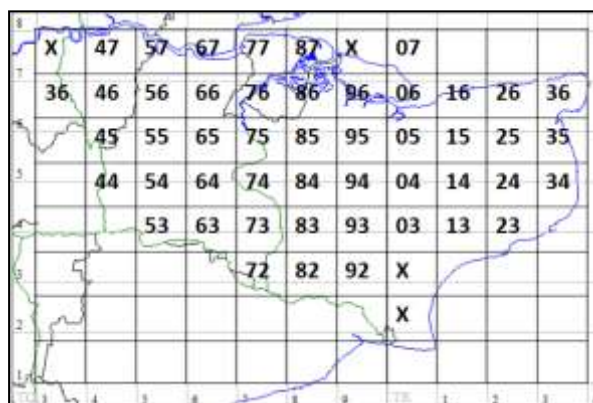
Native. Woodlands, hedges, sheltered grassland. Very common in all parts of Kent except the alluvial marshlands of **2), 4)** and **15)**.

1st records either 1597: Blackheath, Gerard; or 1632: Faversham, Johnson, *Descriptio*. See W.A. Clarke in *J. Bot.* 1892, p151.

1) Bowane [Bourne?] Wood (St M[ary] Cray) 1954. Hockendell Wood 1954. Petts Wood, 1954. Town Court Wood Orpington 1954. Chislehurst St[at]io]n GMB. Kevington 1954. Elmstead Woods, Miss A Mills, 1956. Scadbury Park '59. Wood W of Petts Wood St[at]io]n. Shooters Hill Woods GMB. Farningham Wood 82. Joydens Wood 1948. Abbey Wood, St J.M. (1948!), 1951, GAM. (Crofton (var. *diversa* Greg.) W.W.) Roundabout Wood, Crofton Heath, PCH. S of Well Hill. Ninhams Wood. Crofton Wood by ch[urch]. 804759 S. of St Mary Hoo. Dartford Heath GMB.

2) Hawes Wood 863658, '59. Warden Copse.

3) Trenley Park Wood, L.W.W. W. edge Blean above Rhode Common 1946 **MNE**. Iron Hill 60. Copse N Ford N of Hoath 201653, 59. Shelving Wood, Hoath, 62. Wood NE of Rhode Common, 59. Pine Wood Littlebourne



202581, 198577, 58. Hoomestall Wood Harbledown. Oldridge Wood. Clowes Wood '65. Thornden Wood '47. Church Wood. Blean N.R. 57. Bigbury Wood. Wood NE of Ellbridge [sic], 60.

4) Wenderton Manor. Wood on Thanet S[and], '59, B Nash. Copse N of Preston Ch[urch] 22607 58.

5) 396661. Higham Hill PCH. Downe, Hb. Davis 1916 **MNE**. Jewells Wood, Biggin Hill, Hb Davis **MNE**. Chevening Park Woods, 1950 **MNE**. Rushmore Hill PCH. Wood W of Shoreham PCH. Pilots Wood, PCH. Hangrove Wood Downe '61. Lattice Coppice. Lullingstone Park. Plateau W of Shoreham. Ne of Cackets Fm E of Cudham. Shellam Wood Cudham.

6E) Cockham Woods Upnor.

6) Copse E of Red St[reet], Southfleet. Copse S of East Hill, W Kingsdown, 1956 **MNE**. Copse SE of Dartford '44. DarenthWood. Lords Wood, PCH. Wingate Wood. Horseholders Wood. Maplescombe Valley, SEC. Whiteash Wood 611645, 59. Field NW of Ingram Wood 610615, 59, 611616. Greenhills Wood Otford 61. Cox's Wood Stanstead 606613, 59. Randall Wood, Shorne. Kingsdown, 1929, JCR. Stoneyfield Wood, Halling, PCH. Downs E of Shoreham, PCH. Preston Hill, PCH. Court Wood Higham. Horton Kirby Wood PCH. Court Wood Southfleet. Kemsing Downs CAS. Claylane Wood Cobham. Greenhills Wood, PCH. The Thrift, Bean, PCH. G[rea]t Crabbles Wood 1944.

7) Shaw N of Boxley Grange. Wood E of Newnham. Marshall Wood Rainham ES. Purple Hill, Hartlip 1955 **MNE** '61. Stock Wood, Frinsted 1951 **MNE**. S. of Keycol, 1958 **MNE**. Ab[undant], Bredhurst Hurst 44. Longbeech Wood 975505, 62. Lower Cox St[reet], 814613, 809606, '60. Squirrels Wood (acid drift) & Church Wood Stockbury. Coxett Wood '61 & '63. Filmer Wood 62. Tassells Wood Norton, '62. Park Bottom W[oo]d, Newnham 62. Mintching Wood, Kingsdown 63. Lit[tle] Budds Hucking 63. Longton Wood 63. Snoad St[reet] E of, 63. Beacon Hall Wood Badlesmere 63. Aylesford Common. Tunbury Wood. Broomham Wood, Eastling 58. Hurst Wood Stakisfield 58. Cox Street, c[lay] w[ith] f[lints]. Razor Grinders Wood Wichling. ¼ mE of Badlesmere Lees W[oo]d ch[al]k, 015539. *Simia* field Ospringe. Westwell. Hawkins Wood Chilham DHK..

8) Lady Wood, Hawkinge. Covet Wood. Ferlingham copse 60. Lit[tle] America Waldershare. Eastling Wood. Wood N of Wye Crown. Beech plant[at]ion N of Coldred Court. Downs above Chilham, 145, DHK (var. *flavicornis* (Forst.)). Olantigh Plantation 1954. Robsacks Wood 1954. Woolwich Wood 62. Wolverton Wood 62. Broad Downs Brook 62. Wood W of Bossingham 62. Hunts Wood Up[pe]r Hardres 61. Up[pe]r Hardres Wood 61. Copse SW of Goodnestone '53. S of Crundale ch[urch]. Denge Wood plateau 59. Clavertye Wood, Elham 1956 **MNE**. Iffin Wood C Haes. Stafflands Wood '62. Goodnestone Ch[urch] y[ar]d 62. Fanscombe Wood Wye 59. S of Alkham. S side Coombe Vale Dover. Shakespeare Cliff. SE of Swingfield. Lydden Valley a[bundant]. Wewll Minnis. Sutton Downs Wood. Reinden Wood B Nash 58, 62! River, KDR. SW of Lydden KDR. Lousyberry Wood T[emple] Ewell. Lords Wood T[emple] Ewell. 1st & 3rd woods Coombe Vale Dover. S of Hougham Wood in 61/23. Folkestone Warren.

10) Rooks Hill. Springhill Mill Whitley Forest 61. Quinten Wood '60. Brockholt Mount carr '60. Copse SW of Ide Hill 54. Scords Wood, 1954 **MNE**. Dibden Bottom. Gudge Wood SE Crockham Hill '58. Spring Wood W of Crockham Hill 58. Farley Heath Westerham 58. Scarp foot E of Bayleys Hill 58. Dry pasture Brockhoath W[oo]d 507515, 60. Westerham Wood 82.

11) Kings Wood Langley. Chestnuts Addington. East Hall Boughton Mon[chelsea]. Park Wood Boughton Mon[chelsea]. 921457 Pluckley Park Wood. Elmstone Hole. Senacre Wood Otham. Scarp E of Knole Hill Ulcombe. Oaken Wood SE. R[oa]s[ide] Oaken Wood W n[ea]r N[orth] Pole. Warren Wood E Malling. Copse S.W. Ide Hill 1954. Road W. of W. Malling 1954. S. of Ryarsh, 1954. Ryarsh Wood 1954. Roughetts Wood Ryarsh, 1956. Ryarsh Wood 1954 [duplicated]. Wood by Teston Lock 1954. Fulling pits 787567. Wood fs, 1mW, Bearsted 59. Leeds Golf Course. Leybourne Wood. Larkfield Heath. Mereworth Wood E plateau Rd '58. Harrietsham sandy bank. Holt Wood, 1944 **MNE**, 1955 **MNE**. Wet copse S. of Mereworth 1944 **MNE**. Mereworth Park 1944 **MNE**. Penenden Heath 44. Swanton Valley N. (neutral loam). Wood NE of Boughton Malh[er]be 60. Reason Hill Hunton 61. Allington Wood 59. Wood on rag[stone] W of Gover Hill '58. Pizian Well, W[at]er[ing]bury. NE Penenden Heath, 1958 **MNE**. Horish Wood '63. Kiln Wood Lenham '62. Kings Wood Ulcombe S side 58. Kings Wood S of Chegworth 59. Wood S of Boughton Monch[elsea] 59.

11W) Hoads Common, Shipbourne 1959 **MNE**. S of Mundy Boys. Brook Wood Headcord 60. Shipbourne forest E. Millbay Wood. Dering Wood '60. Golden Sq[uare] Wood Smarden '62. W. of Shipbourne + R[oa]ds. Wood SW of Frittenden 801420, 53. Maplehurst 801420 copse on paludina.

13) 44 Greybury Gill Edenbridge 1954 **MNE**. 63 Lamberhurst Quarter. Wood 1/2m E of Horseshoe Fm (Wad[hurst] C[lay]). Wood S. of Highfield Rocks (T[un]bridge W[ells] S[and]). 74 Hartshurst, S. of Marden Thorne. 73 Bedgebury Pinetum 1955 **MNE**. StoneWood Speldhurst '61. Below Rocks Angley. Friezley Wood 780385, 58. Hawkenbury. 63 High Wood, T[un]bridge W[ells]. E of Horsmonden. 73 Angley Wood. 54 Hurst Wood, T[un]bridge W[ells]. 53 Groombridge. 64 Wood S. of Pembury New Church 1944 **MNE**. 54 SW of Leigh, towards Penshurst Park 1955 **MNE**. 53 Stone Cross Gill, Ashurst, 518381, CAS. 64 Pembury Woods PCH.

G[rea]t Sandhurst Wood 60. South Park Penshurst. Stone Wood Speldhurst 61.⁷⁰ Gill W[oo]d E Crundalls Gill Brenchley 672427, '58. Scotney PCH. Broke Wood Southborough. Greybury Gill Cowden. S of Pembury Rd 614397. S of Past Heap Kippings [Cross]. Corks Pond. Wood W of Old Horsmonden Ch[urch] 701384. Copse E of Horden on Weald C[lay]. 2m NE of Goudhurst.

V. reichenbachiana Bor. Synonyms:- **Viola sylvestris** auct.

15, 16

Native. Woodlands on more base-rich soils; common on the chalk and ragstone, less so on the Tertiaries and in the Weald, but frequent, very widespread in all wooded areas,
1st record: 1882; North Cray, H. & J. Groves, in Herb. Brit. Mus.

[Then the rest of VIOLACEAE TAMARICACEAE, FRANKENIACEAE, CURCUBITACEAE to SALICACEAE, which includes:]

Populus L.

†**P. alba** L. White Poplar.

[account not yet transcribed]

prob. † **P. canescens** (Aiton) Smith (**P. alba** x **P. tremula**) Grey Poplar

[account not yet transcribed]

P. tremula L. Aspen.

[account not yet transcribed]

P. nigra L. ssp. **betulifolia** (Pursh) W. Wettst. (by Hothfield Lake, J.Pitt.). N

[account not yet transcribed]

†**P. nigra** L. var. **italica** Münchh. (much planted).

[account not yet transcribed]

†**Populus x canadensis** Moench (much planted in various forms)

Localised records for district 15: The form "*Serotina*" was recorded: one mile northeast of Iychurch in 1955 (**TR037285**); and east of Brenzett in 1959 (tetrad **TR02D**).

....

Salix fragilis L. Crack-willow N

Generally planted. Localised records for district 15:

In a meadow west of Appledore in 1956 (either tetrads **TQ92P** or **93K**); on Shirley Moor in 1955 (**TQ940320**).

S. x rubens Schrank (**S. alba** x **S. fragilis**). Hybrid Crack-willow.

Localised records for district 15:

Royal Military Canal in 1956 [probably southeast of Appledore, tetrad **TQ92P?**].

S. alba L. White Willow ?N

Often planted. Present on the Burmarsh road south of Hythe and also south of Ham Street. In Shirley Moor in 1955 (**TQ940320**).

....

S. cinerea ssp. **oleifolia** Macreight N

In relation to district 15: Here and there in the district, quite common in central area e.g. Selby Farm (**TR1033**). Also on Shirley Moor in 1955 (**TQ940320** etc).

.....

†**S. laurina** Smith (**S. cinerea** x **S. phylicifolia** in Stace); (Philp: "*S. caprea* x *viminalis*"). [account not yet transcribed]

S. aurita L. Eared Willow N

On Dungeness (and in the Weald).

[Genera and species continue through the rest of SALICACEAE, and then BRASSICACEAE, which includes:]

Rorippa Scop. (incl. **Nasturtium** R. Br.)

R. nasturtium-aquaticum (L.) Hayek Water-cress N

Localised records for district 15: ditch ½ mile west of Appledore Station in 1954 and 1959 (tetrad **TQ92U**); Boulderwall (tetrad **TR01U**); and moat north of Old Romney in 1959 (**TR033254**)

R. x sterilis Airy Shaw (**R. nasturtium-aquaticum** x **microphylla**) [account not yet transcribed]

⁷⁰ Entry is duplicated above.

R. microphylla (Boenn.) N. Hylander ex A. & D. Love Narrow-fruited Water-cress H
 Localised records for district 15: ditch at Fairfield (**TQ92T**) [MNE det. F.H. Perring]; and ditch north of
 Snave (tetrads **TR02E** and/or **TR03A**) [MNE det. F.H. Perring]

....

R. palustris (L.) Besser Marsh Yellow-cress N
 Localised records for district 15: by B2080 east off Reading Street in 1956 (tetrad **TQ93F?**)

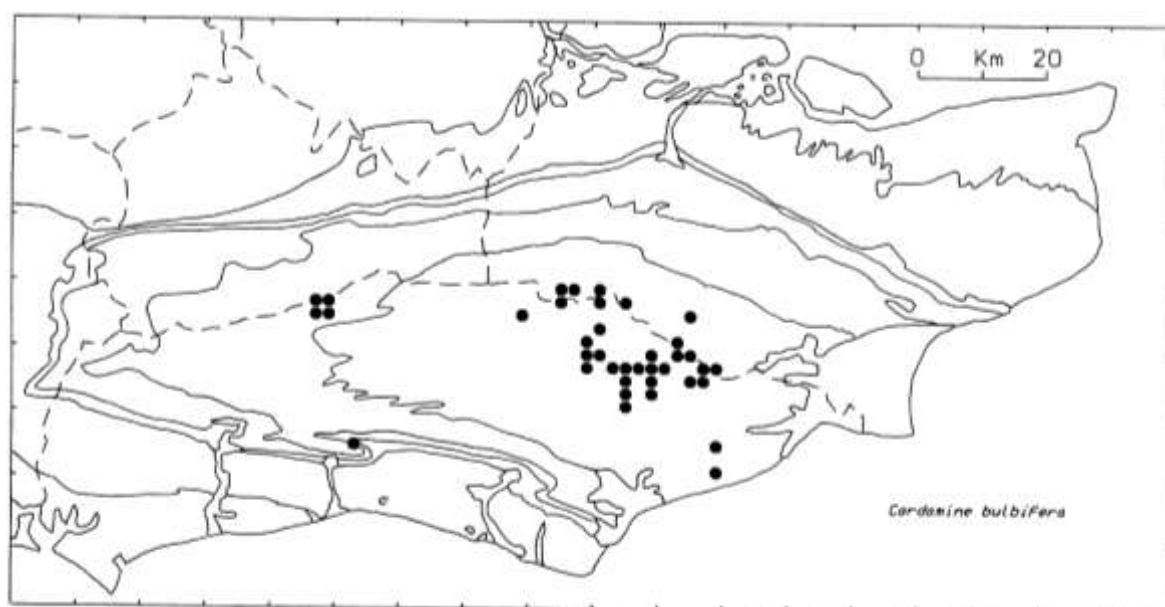
....

R. amphibia (L.) Besser Great Yellow-cress N
 Localised records for district 15:
TQ83: near Tenterden in 1897 [R.R. Hutchinson – Hb. Croydon N.H.S.]
TQ93: ditch bank by B2080, Shirley Moor west of Appledore in 1954 (tetrad **TQ93F**) [E.
 Scott; also 1957 (!) – both in MNE]; Kenardington Bridge in 1950 (**TQ9731**) (E.S.)

[Genera and species continue through the *BRASSICACEAE*, to:]

Cardamine L.

C. bulbifera (L.) Crantz (= *Dentaria bulbifera* L.) Coralroot N [account not yet transcribed,
 map exists]



C. amara L. Large Bitter-cress N [account not yet transcribed]

C. pratensis L. Cuckooflower N

Localised records for district 15:

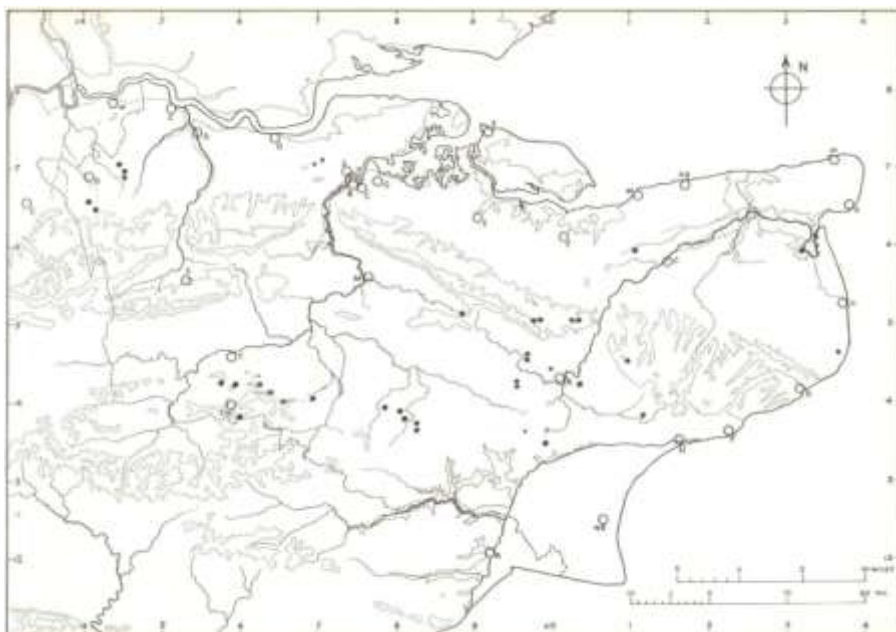
TQ82: Sandhurst Levels
TQ92: By road north of Oxney in 1954; and northeast of Old Romney church by dyke 59
 (**TR0325**)
TQ93: Shirley Farm, north of by-road 62 (**TQ9332**)
TR01: Halfway Bush (tetrad **TR01U**)
TR02: Dymchurch in 1882 [J.F.D.P.]

[Genera and species continue through the rest of *BRASSICACEAE*, *RESEDACEAE*, to *ERICACEAE*, which includes:]

Calluna Salisb.

C. vulgaris (L.) Huds.⁷¹ Heather N

⁷¹ Part of a series of maps from Francis Rose's folder marked Kent Flora Maps; the distribution dots appear incomplete.

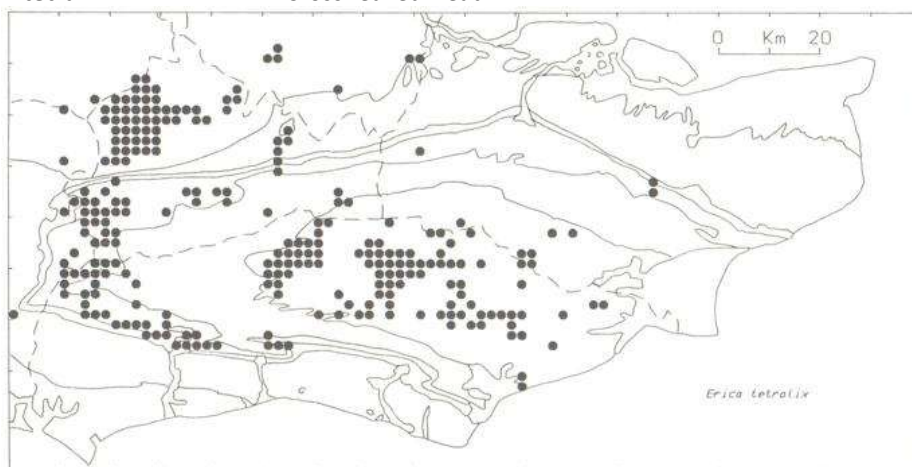


Erica L.

E. tetralix L.

Cross-leaved Heath

N



....

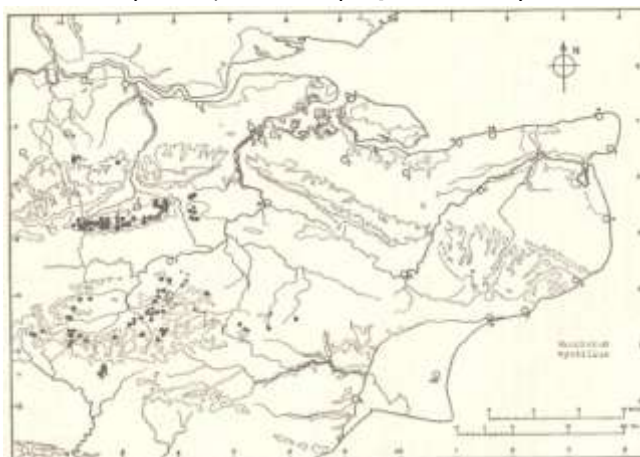
Vaccinium L.

V. oxycoccus L.

Extinct, if indeed really found). Cranberry [account not yet transcribed]

V. myrtillus L.

Bilberry



N⁷²

⁷² Map taken from Rose, F. (1955) The new Flora of Kent. *The South-Eastern Naturalist and Antiquary* 60: 9-19.

[Genera and species continue through the rest of ERICACEAE, then PYROLACEAE, MONOTROPACEAE, PRIMULACEAE as far as:]

Hottonia L.

H. palustris L. Water-violet N

In relation to district 15: Most common along north side of Marsh. Old record at Dymchurch in 1839

[Herbarium Glennie BRIST]. Localised records:

TQ82: abundant in marsh dykes on Sandhurst Levels south of Ethnam in 1954 (**TQ811265**)

[MNE]

TQ92: abundant in dykes ½ mile west of Appledore Station in 1959 (**TQ969299**); and Shirley Moor in 1943 [MNE], also at **TQ940320** and to south in 1955 (tetrads **TQ93F** and/or **93K**)

TQ93: abundant in dykes between Appledore Station and Kenardington canal bridge in 1959 (**TQ972302**) [MNE]; and dyke parallel to Royal Military Canal, Kenardington in 1959 (**TQ975310**)

TR03: ditch west of Newchurch in 1954 (tetrad **TR03K?**); and dyke south of Ham Street canal bridge (tetrads **TR03A** and/or **03B**)

TR13: Dyke southeast of Burmarsh in 1957 (**TR102318**) [L.J. Margetts]

Cyclamen L.

†C. hederifolium Aiton D. since 1778. Cyclamen H [account not yet transcribed]

Lysimachia L.

L. nemorum L. Yellow Pimpernel N [account not yet transcribed]

L. nummularia L. Creeping Jenny N

In relation to district 15: Recorded from **TQ82**, **TQ93**, **TR02**, **TR03** and **TR13**. Localised records: ditch sides on Shirley Moor in 1943 (**TQ93**); Brenzett (tetrad **TR02D**); ditches, Appledore (tetrad **TQ92U**); dykes at Bonnington (tetrads **TR03L** and/or **03R**), Ruckinge (tetrad **TR03G**) and Ham Street (tetrad **TR03B**); and Small Hythe in 1956 (**TQ888296**).

L. vulgaris L. Yellow Loosestrife N

In relation to district 15: Largely unrecorded from the Marsh except: Dungeness fen southeast of Hamilton Farm, in 1952 (**TR01**); and dyke near Galloways, Dungeness in 1953 (tetrad **TR01J**). Other contemporary records: Shirley Moor at **TQ940320** and to south (tetrads **TQ93F** and/or **93K**) [E.S.]; Royal Military Canal, Kenardington bridge in 1959 (tetrad **TQ93Q**); dyke, Ruckinge (tetrad **TR03G**) ["Mrs M.J. Compn."]; and Small Hythe in 1956 (**TQ888296**)

....

Anagallis L.

A. tenella (L.) L. Bog Pimpernel N [account not yet transcribed]

A. arvensis L. ssp. **arvensis** Scarlet Pimpernel N [account not yet transcribed]

A. arvensis ssp. **coerulea** Hartman Blue Pimpernel N

[In manuscript given as:]

A. arvensis ssp. **foemina** (Mill.) Schinz & Thell.

This sub-species is frequently confused with the blue variety of ssp. **arvensis**: it has the fruiting pedicels equalling or shorter than leaves (not longer as in ssp. **arvensis**): flowers always blue, up to 12 mm diameter (up to 14 mm in ssp. **arvensis**): narrow-obovate corolla-lobes, which are very sparingly (not densely as in ssp. **arvensis**) fringed with 4-celled glandular hairs (5-celled in ssp. **arvensis**). It is a rare plant of cornfields on the chalk in Kent. Fl. Kent does not distinguish clearly between this ssp. and the blue variety of ssp. **arvensis**.

Authentic records include the following: 3/51.

5) Downe, W.C.R. Watson, Cornfield W. of Salt box, Biggin Hill, 1950, J.D. Lovis. Leaves Green, 1956, Miss C.A. Swain.

6) Cornfields below Great Wood, N.W. of Cuxton, Hb. J.S. Mill: one plant, 1943! **MNE** ? Cobham, Ridley (probably) the same locality. Darenth Wood, A.A. **BM**.

7) Cornfield, Westwell: 1 plant, 1947, E.S.

10) Near Ide Hill, J.H. Woodhead. (? correct).

Very rare in Surrey and Sussex; in Essex?; rare on chalk in the Pas de Calais; commoner in Somme.

Reported at 4) W. side golf course, Sandwich Bay, 1955, Mrs. Brickenden: "seed caps. 5-veined".

A. minima (L.) E.H. Krause (*Centunculus minimus* L.). Chaffweed. N [account not yet transcribed]

Glaux L.

G. maritima L. Sea-milkwort N

In relation to district 15: Romney (TR02) and Hythe (TR13) with localised records at: Dymchurch, behind sea-wall (tetrad TR02Z etc); the Wicks west of Dungeness in 1946 (tetrads TR01D and/or 01E) [MNE]; and 3) brackish meadows by church, Fairfield (tetrad TQ92T).

Samolus L.

S. valerandi L.

Localised records for district 15:

TQ82: dykes on levels, Sandhurst in 1954 [MNE]

TQ92: dyke east of Appledore in 1945 (tetrad TQ92U); and Snargate in 1954 (tetrad TQ92Z)

TQ93: dykes on Shirley Moor near Farm in 1945 (TQ9332)

TR01: old pits near school, Dungeness in 1946

TR02: dyke west of Brenzett in 1945 (TQ9927 and/or TR0027) [MNE]; and Brenzett in 1954

TR03: dyke south of Ruckinge in 1956 (tetrad TR03G) [MNE]

TR13: canal southeast of Burmarsh in 1958 (tetrad TR13A) [L.J. Margetts].

[Genera and species continue through HYDRANGEACEAE, GROSSULARIACEAE, to CRASSULACEAE:]

Crassula L.

[**C. tillaea** Lester-Garl.] Mossy Stonecrop. ext N (Sandwich c.1900) [account not yet transcribed]

....

Sedum L.

....

†**S. album** L. (possibly native on shingle & chalk cliffs). White Stonecrop. ?N, C, H [account not yet transcribed]

....

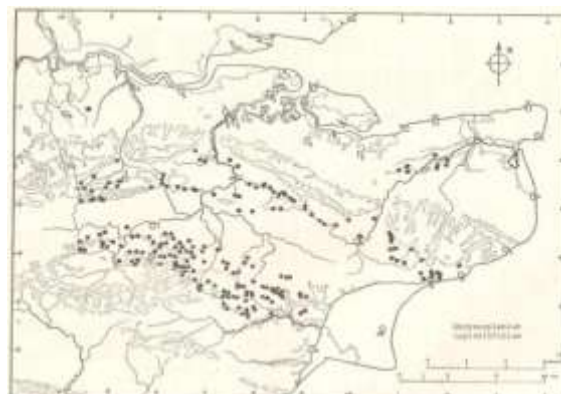
†**S. rosea** (L.) Scop. (Garden relic or escape). Roseroot. H account not yet transcribed]

[Genera and species continue through CRASSULACEAE to SAXIFRAGACEAE. In this family lies the following species:]

Chrysosplenium L.

C. oppositifolium L. [account not yet transcribed, but it is likely to have included comment along these lines:]

Occurs only in those areas where permanently moist but well-drained stream banks or springs occur, and thus is widespread in the dissected, well watered Hastings Beds country of the Weald. It also occurs elsewhere along the springlines at the junction of pervious and impervious strata. Its distribution map is very complex as a result; besides the dry chalk and sand, both the low-lying Weald Clay and the alluvial marshlands of the coast

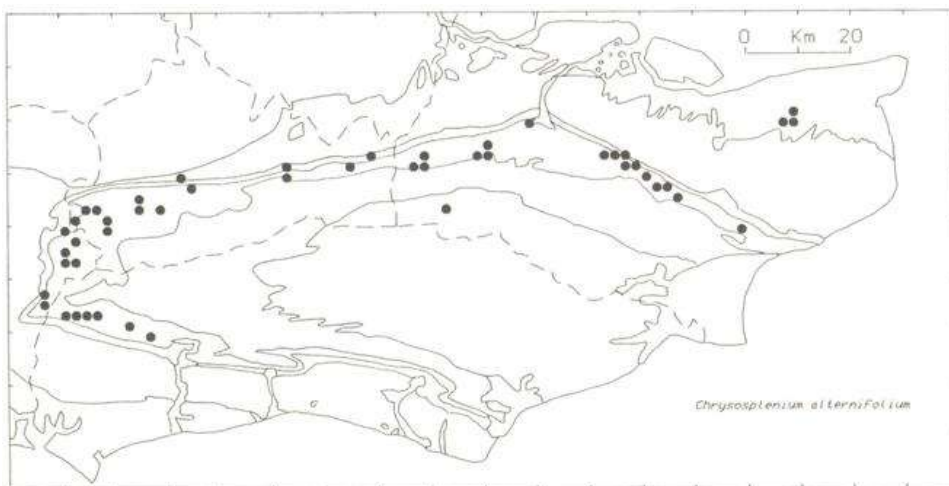


are avoided, for in both there is a lack of permanently damp, well-drained, shaded habitats.⁷³

C. alternifolium L. Alternate-leaved Golden-saxifrage⁷⁴

[account not yet transcribed, but it is likely to have included comment along these lines:]

Although it appears to require exactly similar physical conditions, and usually grows with or near *C. oppositifolium*, has evidently narrower chemical requirements. It is confined to springs and streamside flushes on the Kentish Ragstone and on the Thanet Sands. It is noteworthy that these two strata yield water of alkaline reaction, moderately calcareous, but containing many other soluble minerals as well, particularly iron, unlike the Chalk.



75

[Genera and species continue through the rest of SAXIFRAGACEAE, then:]

ROSACEAE

Sorbaria (Ser. ex DC.) A. Braun

†**S. tomentosa** (Lindley) Rehder (natd. in N.W. Kent.).
Himalayan Sorbaria H [account not yet transcribed]

†**S. grandiflora** (Sweet) Maxim (natd. in W. Kent.). H [account not yet transcribed]



Spiraea L.

†**S. billardii** Herincq (**S. alba** x **S. douglasii**). (natd. in W. Kent). Billard's Bridewort. H [account not yet transcribed]

†**S. douglasii** Hook. (natd. in W. Kent.). Steeplebush. H [account not yet transcribed]

†**S. canescens** D. Don (natd. Longfield). Himalayan Spiraea. H [account not yet transcribed]

†**S. x arguta** Zabel (natd. Darenth Wood). [account not yet transcribed]

Holodiscus (K. Koch) Maxim.

†**H. discolor** (Pursh) Maxim. (natd. Wall, Knowle [sic] Park). Ocean-spray. H [account not yet transcribed]

⁷³ Rose, F., Distribution maps of Kent Plants (Exhibit), in Lousley, J., ed. (1951) *The Study of the Distribution of British Plants* (1950 conference report), B.S.B.I, Arbroath.

⁷⁴ Two maps are given here. The larger one was present with Francis Rose's papers made available to other botanists; the smaller one is taken from Rose, F. (1955) *The new Flora of Kent. The South-Eastern Naturalist and Antiquary* 60: 9-19.

⁷⁵ Map taken from Rose, F. (1955) *The new Flora of Kent. The South-Eastern Naturalist and Antiquary* 60: 9-19.

Filipendula Miller

F. vulgaris Moench Dropwort N [account not yet transcribed]

F. ulmaria (L.) Maxim Meadowsweet N

Localised records for district 15: very rare in this district and confined to the edge of the Romney and Walland Marshes e.g. west of Pigeon Hoo Farm, Tenterden [probably off the levels in **TQ9083**]; and by marsh dyke north of Oxney (**TQ92**).

....

Sanguisorba L.

†**S. canadensis**. (an escape, J. Wallis, 1943.) [account not yet transcribed]

S. minor Scop. ssp. **minor** H&M> Salad Burnet. N [account not yet transcribed]

†ssp. **muricata** (Gremli) Briq. (= *Poterium polygonum* Waldst. & Kit.). H&M Fodder Burnet [account not yet transcribed]

Acaena Mutis ex L.

†**A. novae-zelandiae** Kirk (introd. (?with shoddy) natd.). Pirri-pirri-burr.

Alchemilla L. Lady's Mantles.

[**A. glabra** Neyg. (SW of Snodland, 1947).] [account not yet transcribed]

A. xanthochlora Rothm. Lyminge Forest, R Gorer. N [account not yet transcribed]

A. filicaulis Buser ssp. **vestita** (Buser) Bradshaw (Cobham Gt. Wd., Oaken Wd. Barming). N [account not yet transcribed]

†**A. mollis** (Buser) Rothm. (Garden escape). [account not yet transcribed]

A. cf venosa? Juz. (Sevenoaks, in garden, natd-1972). [account not yet transcribed]

....

Rosa L.

†**R. multiflora** Thunb. ex Murray Rare escape (E.P.) Many-flowered Rose. H [account not yet transcribed]

†**R. luciae** Franchet & Rochebr. In Stace (1991) (not in E.P.). Memorial Rose. H [account not yet transcribed]

....

(**R. mollis** Smith – reported by EP (northern species- -not likely to occur). (Culverston - Green - garden escape?) Soft Downy-rose. [account not yet transcribed]

....

R. agrestis Savi (H&M - not recently). (Syn. **R. elliptica** auct. non Tausch.), and **R. sepium** Thuill- non L. auct. Needs re-finding. Small-leaved Sweet-briar. (N ? ext.) [account not yet transcribed]

Prunus L.

†**P. persica** (L.) Batsch (planted - rare escape). Peach. H [account not yet transcribed]

P. dulcis (Miller) D.Webb (ditto) Almond. H [account not yet transcribed]

†**P. cerasifera** Ehrh. (planted and now well naturalised). Cherry Plum. H [account not yet transcribed]

P. spinosa. Abundant. N. H&M> Blackthorn. N [account not yet transcribed]

P. x fruticans Weihe – (**P. spinosa** x **P. domestica**). Common now.

†**P. domestica** L. (old introduction - now common). Wild Plum H [account not yet transcribed]

P. avium (L.) L. Wild Cherry. N [account not yet transcribed]

†**P. cerasus** L. Introduced Dwarf Cherry. [account not yet transcribed]

†**P. mahaleb** L. (Introduced and well-naturalised esp. by railways; N. France native) St. Lucie Cherry. H [account not yet transcribed]

....

Cydonia Miller

†**C. oblonga** Miller (rare escape, hedges and waste ground E. P.) Quince. H [account not yet transcribed]

Chaenomeles Lindley

†**C. speciosa** (Sweet) Nakai (occasionally naturalised: E.P.) Japanese Quince. H [account not yet transcribed]

....

Malus Miller

....

†**M. purpurea** (Barbier) Rehder (Natd. in W. Kent: garden origin c.1900). Purple Crab. H [account not yet transcribed]

[Genera and species continue through the rest of ROSACEAE, then:]

CAESALPINIACEAE

Cassia L.

†**C. occidentalis** L. Oil-seed casual. [account not yet transcribed]

Cercis L.

†**C. siliquastrum** L. Judas Tree. Waste ground, Hythe. H [account not yet transcribed]

FABACEAE

Robinia L.

†**R. pseudoacacia** L. False- acacia. Widely naturalised in woodland, quarries, roadsides etc [account not yet transcribed]

Phaseolus L.

†**P. vulgaris** L. French Bean. C asual on rubbish tips. [account not yet transcribed]

†**P. coccineus** L. Runner Bean. Casual. [account not yet transcribed]

†**P. lanatus** L. Casual. [account not yet transcribed]

Vigna Savi

†**V. radiata** (L.) Wilczek Mung-bean. [account not yet transcribed]

Glycine Willd.

†**G. max** (L.) Merr. Soya-bean Casual

1) B[ritish] O[il] [and] C[ake] M[ills], Erith, DMcC, 1956.

Galega L.

†**G. officinalis** L. Goat's-rue. Naturalised on waste ground. [account not yet transcribed]

Colutea L.

†**C. arborescens** L. Bladder-senna. Naturalised on waste ground. [account not yet transcribed]

†**C. x media** Willd. Orange Bladder-senna. Naturalised on waste ground. [account not yet transcribed]

Astragalus L.

A. glycyphyllos L. Wild Liquorice. N [account not yet transcribed]

Onobrychis Miller

O. viciifolia Scop. Sainfoin. N, also colonist & planted. [account not yet transcribed]

....

Lotus L.

L. glaber Miller (**L. tenuis** Waldst. & Kit. ex Willd.) Narrow-leaved Bird's-foot-trefoil N

Localised records for district 15: alluvial pastures at Brenzett in 1945 (tetrad **TR02D?**) [BM and F.R. in MNE]; and Sandhurst Levels in 1954 (**TQ82**)

L. corniculatus L. Common Bird's-foot-trefoil N [account not yet transcribed]

L. pedunculatus Cav. (**L. uliginosus** Schk.) Greater Bird's-foot-trefoil N

Localised records for district 15: Shirley Moor south from **TQ940320** in 1954; and Dungeness Marsh in 1956 (**TR01**).

L. angustissimus L. Slender Bird's-foot-trefoil N

[The MS included reference to: Stone Marshes [W. Watson]....Isle of Grain [B. Draydon Jackson 1875]..not refound in spite of much search....Trenley Park Wood [Miss E. Day].....]⁷⁶

Tetragonolobus Scop.

T. maritimus (L.) Roth Dragon's-teeth. ?N

[The MS included reference to:Scrapsgate, Minster [J.E. Nichols, 1965]....Roadside, on waste ground, Minster-Sheerness [Mrs Begg]....Shell ness [A.G. Side]....Abundant on London Clay cliffs W. of Warden Point [F.R. 1947]....]⁷⁷

Dorycnium Miller

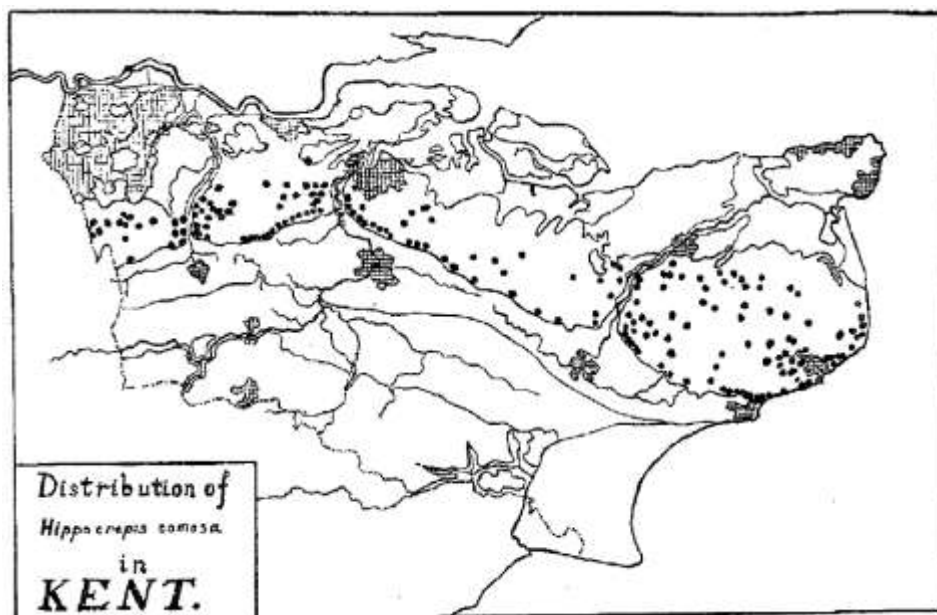
†**D. pentaphyllum** Scop. Naturalised: Warden Point (? now fallen into sea): "road verge, Canterbury": E P. [account not yet transcribed]

Ornithopus L.

†**O. compressus** L. Naturalised on road bank nr. Swanley. (Not in E P. area, but in VC 16). [account not yet transcribed]

O. perpusillus L. Bird's-foot N [account not yet transcribed]

Hippocrepis comosa L. Horseshoe Vetch H&M-EP →N [account not yet transcribed, but there is map]⁷⁸



Securigera DC. (= **Coronilla** L.)

†**S. varia** (L.) Lassen (**C. varia** L.) Crown Vetch. Well naturalised in a few places. H [account not yet transcribed]

⁷⁶ Taken from Rosemary FitzGerald's notes of the species account. Additional square brackets are introduced where the text may not be an exact transcript.

⁷⁷ As above.

⁷⁸ Rose, F., Distribution maps of Kent Plants (Exhibit), in Lousley, J., ed. (1951) *The Study of the Distribution of British Plants* (1950 conference report), B.S.B.I, Arbroath.

Scorpiurus L.

†**S. muricatus** L. Casual: tip and wool alien. [account not yet transcribed]

Vicia L.

....

V. tenuifolia Roth Fine-leaved Vetch. Naturalised: VR: [Aylesford], Dover cliffs [account not yet transcribed]

[the checklist does not include the next species, in Stace edition 2 treated as **Vicia parviflora**:]

V. tenuissima (M. Bieb) Schinz & Thell. (*V. gracilis* Lois.) 15, 16 Slender Tare.

Possibly native, more likely alien. Hedgebanks, tracksides, scrub; very rare indeed, and only seen recently in one spot.

1st record, 1849; Kent, Mr. Quekett, Eng. Bot. Supp. p.2904.

3) Herne Bay, Trimen. Between Whitstable and Canterbury, G.C. Druce (J. Bot. 1888).

6) Between Cobham Park and Ifield in a lane (now A.2) Quekett in Hb. Borrer K.

13) Formerly abundant at Southborough, W. Fawcett (J. Bot. 1869).

16) Folkestone, Miss V.F.P. Day.

[Various *Vicia* species follow, accounts not yet transcribed until:]

†**V. pannonica** Crantz Hungarian Vetch. Naturalised in Dartford: formerly at St.Margaret's at Cliffe.

[In manuscript given as follows (N.B. this species and *V. lutea* are set out with the latter first, but placing *V. pannonica* first would accord with Stace, 2nd edition sequence):]

Vicia pannonica Crantz

The following records, made originally for *V. lutea*, probably refer in the main to this species. It is a very hairy, more or less erect, plant, with primrose-yellow flowers. Sepals entire. Flowers 2-4 together (pod + adpressed hairs).

1) Alien, Lower Sydenham, 1912, H. & J.G. **BM**.

*2) Horrid Hill, Rainham, W.C.R.W.; 1951-61! **MNE**. Roch. Nat. 1948 ("*lutea* var. *hirta* det. Kew")

4) "Alien", Richborough, L.W.W. Sandwich Bay, 1946, W.J.L.S. ("*V. lutea*")

6) Chalk turf, Gravesend, 1962, H.A.S. ("alien form") ("*V. lutea*")

*7) Rochester Rd., N. of Maidstone, Mrs H. Brice, 1960 **MNE**.

*8) Abbot's Cliff top, 1953 **MNE**. Chalk grassland N.E. of St Margarets Bay, J. Caddy [?] etc. det. E. Melderis.

9) Cliff top, Pegwell Bay, 1961, Mrs Dodds. ("*V. lutea*")

12) "Alien" near Ashford Warren, 1894, E.S.M.

13) Old allotments, T. Wells, 1962, Miss M.P. Page. ("*V. lutea*")

V. sativa L. ssp. **nigra** (L.) Ehrh. Common Vetch N [account not yet transcribed]

ssp. **segetalis** (Thuill.) Gaudin Well naturalised [account not yet transcribed]

ssp. † **sativa** Casual [account not yet transcribed]

V. lathyroides L. Spring Vetch N [account not yet transcribed]

V. lutea L. Yellow-vetch N

[In manuscript given as:]

Vicia lutea L. 15, 16 Yellow Vetch

Native, on shingle and shell-sand beaches, very rare, though locally common about Dungeness.

The native species is an almost glabrous, more or less prostrate plant with linear leaflets and cream-coloured flowers which become pale rose-tinted as they fade.⁷⁹

1st record, 1873: Kent east (Dungeness) W.R. Jeffrey, in *Top. Bot.* VC16 – BEC, 1915, p.262.

2) Grain, S. Beach, 1955 (native form) **MNE**.

15) Dungeness Beach, 1905, E.A. B: 1879, F.J.H. B: J.W. Long [?], 1911 **MNE**: H. Elgar, 1920 **MNE**: abundant near Hoppen Pits, Dungeness: J.E.L., 1926: 1946-60! **MNE**. Abundant, S. Brooks, 1946. Abundant, Midrips, 1946 **MNE**.

⁷⁹ The original manuscript account went on to mention a different, alien form; and subsequently records for the latter were transferred to *V. lutea*.

Var. **coaerulea** Archang.

15) Lydd, W.H. Kew, *B.E.C. Rep.*, 1924, p.567.

V. bithynica (L.) L. Bithynian Vetch N

[In manuscript given as:]

Vicia bithynica L. 15 [16] Bithynian Vetch

Native. In grassland or scrub on clay soils, especially near the sea and tidal waters; very rare.

First record, 1835: Frindsbury, Henslow in Hooker & Arnott's British Flora, edn.1, p.324.

1) Woolwich Common, c. 1960, G.M.B.

2) Scrub on London Clay Cliffs near "Royal Oak", East End, Minster in Sheppey, 1946-63 **MNE**. Shellness Point, Rochester N.H.S. c.1930 (var. *angustifolia*). Grassy scrub, Horrid Hill, Rainham, W. Watson: 1950-52! **MNE**. Upnor and Frindsbury, Henslow; 1835 Borrer; L. Stevens c.1890 B; Miss Young. Clay Bank by Medway below Cookham Wood, Upnor. Mrs M. Dolling, 1959, 1960! **MNE**.

[3) Deal, Duthie (var. *angustifolia* Syme)]

[6) Darent Wood, Berkeley in *Fl. Met. Supp.*] *Greenhithe* Fl. Lond. Area. *Springhead, Northfleet*. Fl. Lond. area.

[8) "Reported at Lydden Spout", Mrs Walton.

16) Lower Sandgate Rd, Folkestone, J.B. Syme, **BM**; 1864, F.J.H. Ditto, by steps from Lees (sic) to Lower Sandgate Road, 1877, F.J.H. Folkestone, 1885, Hb. E.F. Linton B. Folkestone, H.L., 1863 **MNE**; Formerly on the Gault Forelands ... *Eastwear Bay*, Folkestone, but not observed since, Miss V.F.P. Day.

†**V.faba** L. BroadBean. **Escape from cultivation.** [account not yet transcribed]

†**V. cassubica** L. **Formerly naturalised at Greenhithe; now extinct.** [account not yet transcribed]

Lens Miller

†**L. culinaris** Medikus Lentil. **Casual alien on tips, etc.** [account not yet transcribed]

Lathyrus L.

†**L. niger** (L.) Bernh. Black Pea **Naturalised on railway banks Tun. Wells (K.E. Bull).** [account not yet transcribed t]

....

†**L. tuberosus** L. Tuberous Pea. **Naturalised at Sandgate.** [account not yet transcribed]

†**L. grandiflorus** Smith Two-flowered Everlasting-pea **Naturalised Trenley Park Wood** [account not yet transcribed]

....

†**L. hirsutus** L. Hairy Vetchling **Naturalised, now rare – formerly locally abundant (Kingston)**

[In manuscript given as:]

Lathyrus hirsutus L. 15, [16]. Hairy Pea

Naturalised alien, but sometimes only casual: hedgebanks, waste ground: very rare, possibly native in Essex.

1st record, 1878: Southborough, Fawcett, **BM**, J. Bot. 1878.

1) Rough field, Bromley, 408675, 1955, D.P.Y.

2) Milner Court Sturry, J.O., 1956.

[6) Cobham; Strood. Miss Stevens; *B.E.C. Rep.* 1925, p.871.]

4) S. of Ebbsfleet, towards Richborough port, on waste ground, 1937, D.McC.; 1939, F. Druce; 1949! FR, L.W.W. plentiful. 1958! **MNE**. 1962, abundant, R. Gorer & BJB.

Walmer, L.W.W.

8) Roadside, Bonnybush Hill, Kingston, 1939, BJB: abundant 1954 D.A.C.L. Three plants 1956 D.A.C.L. 1957, B.J.B.: 1958, Mrs. Rowlands **MNE**: 1962! **MNE**.

N.E. of St Margarets at Cliffe, 1959, R.B. Codd **MNE**.

13) [Markbee, 1914, G.F. Talbot, B.

Southborough, in wood by road, 1875, W. Fawcett.]

....

L. nissolia L. Grass Vetchling N

Localised records for district 15 [*it is generally a plant of North Kent*]: dyke near Boulderwall in 1956 (tetrad **TR01U**); and Potman's Heath in 1958 (tetrad **TQ82U**?).

L. aphaca L. 15,16 Yellow Vetchling

Alien⁸⁰, occasionally naturalised on roadsides, banks, pits, and waste ground, mainly on chalk and sand: with a long history in the county, but not of long standing anywhere.

1st record. 1632; Faversham to Gravesend, Johnson, *Descriptio*, p.37.

[1] Old records at: S. of Bromley, 1892, Whitwell: near Dartford: Elmers End, H.J. Sutton, 1910 **MNE**: Beckenham, 1909, E. Marston: Hb. Davis, 1934 **MNE**. Ruxley pits, 1963.

2) Same: Ringwood: Dover: Chatham: Folkestone (1865, Lady Chandler): Westenhanger.]

3) 1 plant in grassland N.W. of Dunkirk, 1945.

4) Ebbsfleet, Richborough, L.W.W. 1949; 1958, Miss B. Nash, E. of level crossing.

Pegwell Bay, Richborough, L.W.W., R.B.W.

5) Greenhithe; chalkpit E. of Mounts Road, 1950, E.C.W. & R.A.B. Verge of Wrotham by-pass in chalk turf, 300 yds S.E. of roundabout, 1950-63. [Copse by Nurstead Church, R. Pocock, **BM**.]

6E) Green Street Green in gravel pit,⁸¹ 1947. H.M. Pratt, roadside, P.C.H. 1954. Lane End, on green, P.C.H.

8) St. Margarets at Cliffe, on rough chalk grassland by track, R.B. Codd 1958: abundant 1952! **MNE**. Selsted near Hawkinge, Miss E.M. Ratcliffe.

12) 1 plant, grounds of Grove House, Sellindge, 1956, Martyn Rix, comm. Miss D.A.C.L. Weed in Canterbury, E. Robinson, 1949.

14) Appledore waste ground, D.A.C.L.

15) Dungeness, *teste* D.A.C.L.

....

Ononis L.

....

†O. alopecuroides L. Casual, on tips, vr (E.P.). [account not yet transcribed]

Melilotus Miller

M. altissimus Thuill. Tall Melilot. ? N or C or D [account not yet transcribed]

....

Trifolium L.

....

T. fragiferum L. Strawberry Clover N

Common in district 15, including heavy clay pastures and roadsides. Localised records for: Romney Marsh Warren (tetrad **TR02S**?); north of Dymchurch and Hythe in 1905 (**TR13**) [S.E.C. *i.e.* S.E. Chandler]; and at Potman's Heath in 1956 (tetrad **TQ82U**?). Non-localised records for hectads: **TQ82, TQ92, TQ93** and **TR01**.

†T. resupinatum L. Reversed Clover. Casual – no recent record. [account not yet transcribed]

†T. tomentosum L. Woolly Clover Casual. [account not yet transcribed]

†T. aureum L. Large Clover Casual in crop fields [account not yet transcribed]

....

T. stellatum L. Starry Clover Possible former N. Dartford saltmarsh before 1700 (Hb. Du Bois.) Long extinct in Kent. [no further surviving account]

....

Lupinus L.

†L. arboreus Sims Tree Lupin. Widely naturalised esp. sandy areas incl. the coast [account not yet transcribed]

†L. x regalis Bergmans (**arboreus x polyphyllus**). Russell Lupin. Often planted and escapes on waste ground. [account not yet transcribed]

†L. polyphyllus Lindley Garden Lupin Naturalised on waste ground. [account not yet transcribed]

Laburnum Fabr.

⁸⁰ In the checklist it is given as 'Doubtfully native, but established'.

⁸¹ There is, under 5), a further entry which may be related to this: Lane End (Gravel pit) to Green Street Green 578708, 1956, H.M.P. P.C.H.

†**L. anagryroides** Medikus Laburnum. Naturalised widely now. [account not yet transcribed]

Cytisus Desf.

C. nigricans L. Black Broom. Natd. in old gravel pit, Aylesford, 1970 → [account not yet transcribed]

C. scoparius L. Broom. N [account not yet transcribed]

Ceratonia L.

†**C. siliqua** L. Casual on dumps. [account not yet transcribed]

Spartium L.

†**S. junceum** L. Spanish Broom. Naturalised from plantings. [account not yet transcribed]

Genista L.

G. monspessulana (L.) L. Johnson Montpellier Broom. Naturalised at Dartford. [account not yet transcribed]

....

G. hispanica L. Spanish Gorse. Naturalised Darent Wood, E.P. [account not yet transcribed]

....

ELAEAGNACEAE

Hippophae L.

H. rhamnoides L. Sea-buckthorn. N [account not yet transcribed]

Eleagnus L.

†**E. umbellata** Thunb. Eleagnus. Bird-sown alien, and on waste ground. [account not yet transcribed]

HALORAGACEAE

Myriophyllum L.

M. verticillatum L. Whorled Water-milfoil. N. V. rare now (IH&M - E.P.).

Localised records for district 15: Shirley Moor in 1954 (**TQ93**); Ham Street (**TR03**) [W.R. Jeffrey]; Hythe (**TR13**) [F.J. Hanbury]; and Sandhurst Levels south of Ethnam in 1954 (tetrad **TQ82D**) [MNE].

†**M. aquaticum** (Vell. Conc.) Verdc. Parrot's-feather. Introduced by aquarists to ponds. [Not in E.P. 1982.](#) H. [no surviving account beyond these comments in checklist]

M. spicatum L. Spiked Water Milfoil. N, freq.

In relation to district 15: Common in the Romney Marsh. Localised records:

TQ92: Fairfield in 1952 (tetrad **TQ92T**) [MNE]; roadside dyke east of Appledore (tetrad **TQ92U**) [MNE]; and southwest of Brookland to Sussex boundary in 1954 (tetrads **TQ92R**, **92S** and **92X**)

TQ93: The Dowels, south of Kenardington in 1959 (tetrad **TQ93V**) [MNE]; and Shirley Moor

TR01: south of Lydd; and dykes south of Boulderwall Farm, Dungeness (tetrad **TR01U**)

TR02: Romney Warren (tetrad **TR02S**); and Brenzett (tetrad **TR02D?**)

TR03: south of Aldington (tetrad **TQ03R?**); and Ruckinge (tetrad **TR03G**)

TR13: dykes south of Lympne in 1958 (tetrads **TR13B** and/or **13G**) [MNE]; Royal Military Canal, Hythe in 1955 (tetrad **TR13M** and/or **13S**) [MNE]; dyke below the Roughs, West Hythe (**TR1333?**) [L.J. Margetts]; Palmarsh gravel pits in 1956 (tetrad **TR13G**) [L.J. Margetts]; and canal at St Mary's Bay (**TR1232?**) [L.J. Margetts].

M. alterniflorum DC. Alternate Water-milfoil. N: now v. rare; Ashurst, Braboume. H&M - E.P. [account not yet transcribed]

LYTHRACEAE

Lythrum L.

L. salicaria L. Purple-loosestrife N

In relation to district 15: absent from much of the Romney and Walland Marshes with localised records at marsh ditches, Boulderwall (tetrad **TR01U?**); dykes south of Kenardington 1959 (tetrads **TQ93Q** or **93V**) [MNE]; and on Dungeness, abundant in dykes southeast of Hamilton Farm (tetrad **TR01U?**); and in Oppen Pits (!) (**TR0718**). Off the marsh within this district: marsh dykes southwest of Small Hythe (tetrad **TQ82Z**); Shirley Moor (**TQ940320**) [E.S.]; and ditch by meadow, Hexden Channel, in 1954 (**TQ82**).

†**L. junceum** Banks & Sol. False Grass-poly. Wool -alien casual, and in gardens. [account not yet transcribed]
[L. hyssopifolia L. Grass-poly. ? N; extinct.] [account not yet transcribed]

[Genera and species continue through the rest of LYTHRACEAE, THYMELACEAE to:]

ONOGRACEAE

Epilobium L.

Hybrids occur between most of the species in Kent, they are recorded between 1x2; 3 x8, 2x3.

E. hirsutum L. Great Willowherb. N

Localised records for district 15: Boulderwall in 1956 (tetrad **TR01U**); Romney Warren by R.H. & D.R. in 1956 (tetrad **TR02S**); Bonnington to Newchurch road in 1958 (tetrad **TR03L?**); road in Hythe hectad (probably near Selby Farm in 1958) (tetrad **TR13B?**); old green lane south of Kenardington (probably ca 1 mile southeast of bridge) in 1959 (tetrad **TQ93V**); dyke northeast of Old Romney church in 1959 (tetrad **TR02H**); and Royal Military Canal south of Appledore in 1959 (tetrad **TQ92P**).

E. parviflorum Schreber Hoary Willowherb. N

Localised records for district 15: dyke south of canal bridge, Ruckinge in 1956 (tetrad **TR03G**); New Romney in 1956 (tetrad **TR02S**); Potman's Heath in 1958 (tetrad **TQ82U**); dykes south of Kenardington in 1959 (tetrads **TQ93Q** or **93V**); Windmill Channel (**TQ83**); and dykes to north of moat and also northeast of church, Old Romney (tetrad **TR02H**).

E. obscurum Schreber Short-fruited Willowherb. N

Localised records for district 15: by Bonnington to Newchurch road in 1958 (tetrad **TR03L?**).

[Genera and species continue through the rest of ONOGRACEAE, then CORNACEAE to:]

SANTALACEAE

Thesium L.

T. humifusum DC. Bastard-toadflax. N, but apparently recently extinct. [account not yet transcribed]

[Genera and species continue through VISCACEAE, CELASTRACEAE, AQUIFOLIACEAE to:]

BUXACEAE

Buxus L.

B. sempervirens L. Box N (and planted, or self-sown) [account not yet transcribed]

EUPHORBACEAE

....

Euphorbia L.

[E. peplis L. Purple Spurge. Former native, now extinct] [account not yet transcribed]

E. platyphyllos L. Broad-leaved Spurge N or C

[in manuscript, given as:]

Euphorbia platyphyllos L. 15, 16 Warted spurge

Native or colonist. Arable land and waste ground, particularly on heavy clay soils; rare but widespread, at least formerly: most modern records are from the eastern Weald. 1st record, 1777: Faversham, Jacob, Pl. Fav.

- 1) [Chislehurst, Woods, B.G. p.347.] [Southborough to Town Court, 1863, J.S.M.]
- 2) Stone, St. J. Marriott, B.E.C. Rep., 1921, p.397. Thorn, Faversham, in cornfields, E. Jacob.
- 6) Northfleet Huds. Fl. Ang., Ed. 2 1778, p.210. S.E. of Dartford E. de C.
- 7) arable by Hawkins Rough, on clay soil, Chilham, D.H. Kent, 1945.
- 8) Stowting, G.E. Sm. In F.G.E.K.
- 11) [N. of Chiddingstone, J.S. Mill MNE.] [Hop garden, Edenbridge, E.S.S.] [Maidstone, Clover fields, W.W.R.] [Staplehurst, E.S.M.] [Frittenden to Headcorn, J.S.M. 1863.]
- 12) Cornfield on Weald Clay, "Scotts Pond", Stubbs Cross, Kingsnorth, 1955, E. Scott. (1956!) **MNE**. Cornfield S.W. of Mersham, near Bliby, 1954, E. Scott. [Aldington, F.G.E.K.. Brabourne, F.G.E.K.]
- 13) [Tunbridge Wells, Henslow in Hooker & Arnott, Ed. 7, p.381: W.W.R. TLS. Near High rocks, E. Forster Fl. Tonb.; E. of Rusthall Common, E.J. Fl. T.W.]
- 14) [Between Cranbrook and Hawkhurst, E.J., Fl. T.W.] Between High Halden and Woodchurch, B.D.J. (near Susans Hill, Woodchurch, 918342 cornfield, C. Skinner, E. Scott, 1955).
- 15) Cornfield on alluvium, between B.2082 and Reading Sewer, 1956, Wittersham Parish, G.B., P.C.H. and F.R. **MNE**.
- 16) [Cheriton, C.P.S.K.]
Pas de Calais, very rare.

E. serrutata Thuill. Upright Spurge. Established at Pembury 1988, R. Moyse & K. Friend
[account not yet transcribed]

E. helioscopia L. Sun Spurge. N or C [account not yet transcribed]

E. lathyrus L. Caper Spurge N or H

Almost certainly native in Kent, and in Surrey too. 1st record, 1836: abundant near Cobham, Pamplin, *N.B.G.*, p.78. Dry Woods on base-rich soils; very rare but locally abundant; also as a casual escape.

- [1] Wood near Bromley, Scargill.] † Green Street Green near Farnborough, 1961, J.R. Palmer.
- 6) Randall Wood, Shorne, 1836, *N.B.G.*, p.78: Lady E, Bligh; 1947-53, abundant in 2-3 year coppice! **MNE**. Wood E. of A.227, Nursted, 1956, D. Stephen. [Hedgebank of wood E. of Dartford, C.E. Britton.] (Wall, Vigo Farm, Fairseat, C.A.S.)
- 7) Boxley Warren, E.M.A., *Phytol. NS. VI* p.188, 1860: in glade of yew wood, abundant 1942-54! **MNE**.
- 8) Larkey Valley Wood, Thanington, in coppiced areas on loam over chalk, abundant 1948-9; - Miss M.E.M., 1951: abundant 1953 1954, R.E. Wood; 1956, E. Scott, F.R. **MNE**.

Casual records at:

- 2) Faversham, F.G.E.K.
- 4) Pegwell Bay, D. McC. 1947;
- 7) Cottage garden, Old Wives Lees, 1945, D.H.K. never cultivated there since 1871.
- 8) Railway cutting, Godmersham, Mrs. J. R..., 1951. St Margarets at Cliffe, R.J.H.;
- 11) Ightham Place, Bailey: roadside S.E. of Cobtree, Sandling, 1943, F.R. Potato field on cleared woodland site, Hurst Wood, Comp Woods, G.H. Norton 1959. Maidstone, 1882, H. Lamb **MNE**. Pizian Well, Mrs. ...ston, 1951.
- [12)] Wood E. of Mental Hospital, Chartham, a few plants. 1955 Mrs B.
- 13) Monson Road, Tunbridge Wells, K.E.B. 1952.
- 16) Sandgate, 1854, J.I. Brent, Hb. F.J.H.

....

E. cyparissias L. Cypress Spurge N (probably)

[in manuscript given as:]

Euphorbia cyparissias L. 15 Cypress spurge

Native, almost certainly, in E. Kent, though possibly not so elsewhere in the British Isles. Rough chalk grassland and scrub, very rare, but known from at least five localities, in four of which it still exists.

1st record, as a native, 1876: W. of Dover, E. de Crespigny, in B.E.C. Rep., 1879, p.19.

- 8) Whinless Down, Elms Vale, Dover (E. de C's locality, below "Biggles Tower") c. 1898, Rev. J.G. Groman: 1925, J.E. Lousley: 1958, Mrs. Rowlands; 1959, abundant in *Brachypodium pinnati* on a S. slope among native plants! **MNE**. Down S. of Langdon Barracks, Dover, on the cliff top, 1948-54 **MNE**, 1960 Mrs B. Dodds. Barham, 1912, J. Jacob in litt. to F.J.H. in Hb. F.J.H. ?= Chalk scrub near Gravel Castle, Barham, 1942, B.J.B. & F.R. **MNE** (destroyed since). Juliberry Downs, Chilham, 1932 E.S.: 1943, D.H.K. 084531 (1945-59!) **MNE**. Scrub near Acrise, 1960, R. Gorer.

On Epsom Downs, Surrey, looking native, and less “natural-looking”, in Berkshire, Bucks, and Sussex. Not recorded for the Pas de Calais, but widespread in France generally.

[Recorded as an alien at:

1) Crayford Gun Cub, 1955 G.M.B. 47 Elmstead Woods, 1950, Miss A. Mills: 1957! (L. Nat. 1956, 12). Laurie Park, Sydenham, 1859, Beisly in Phyt. N.S. III, p.336; extinct in 1884, W.W.R. and at

11) Leybourne, H. Lamb, 1898 **MNE**. Escape, Orchard Trottiscliffe, 1946, D. McC. Derelict field, Larkfield, 1962, R.D. English.

T. Pritchard (personal communication) reports that our wild Kent plant is [*manuscript blank*]

[Genera and species continue through the rest of EUPHORBACEAE to:]

VITACEAE

Vitis L.

†**V. vinifera** L. Grape-vine. Naturalised esp. on river banks, etc. H [*account not yet transcribed*]

Parthenocissus Planchon

†**P. quinquefolia** (L.) Planchon Virginia-creeper Naturalised on old walls, hedges and tips. H
[*account not yet transcribed*]

†**P. inserta** (A Kerner) Fritsch False Virginia-creeper. (As the last). H [*account not yet transcribed*]

LINACEAE

....

Radiola Hill

R. linoides Roth Allseed N

[*In manuscript given as:*]

Radiola linoides Roth 15, 16 Allseed 5/51

Native. Damp open loamy soil in woodland rides, often with *Centunculus*. Almost confined now to the central High Weald of 13) and 14) where it is still locally common: formerly possibly in 16) outside the High Weald, it should occur in the Tonbridge–Penshurst–Cowden and the Hawkhurst–Rolvenden–Tenterden areas. Not infrequent in 12) on the Folkestone Sand and on the Eocene Sand, but only recently seen.

1st record: Johnson, *Descriptio*, 1632, p.31, “*Millegrana minima*”.

1) [Chislehurst, Gerard em; Ray Syn. To 1930s, W. Watson. Keston, 1836: Cooper Fl. Met. St Pauls Cray Common W.W.R.]

2) Ore/Luddenham, E. Jacob, 1777: Extinct, if correctly named.]

3) [E. of Canterbury, Johnson, *Descriptio*, 132.]

12) [Hothfield Common, H. Lamb, 1902 **MNE**: not seen for many years.] [Willesborough Lees: Brabourne Lees C.P.S.K.]

13) W) Pembury Wood, 1952. Combwell Wood, 1943, 1946, 1954 **MNE**, 1979! Kilndown Wood. Chingley Wood 1949. Bedgebury Wood, abundant in many rides 1944 **MNE**, 1945 **MNE**, 1952 **MNE**. Oaks Wood, Cranbrook, 1944 **MNE**. Angley Wood, 1946 **MNE**, 1954 **MNE**. Brewers Wood 1949. Bayham, Lamberhurst 1945; Sandhurst Wood, 1956 **MNE**. Dandle Wood, 1946.

E) Sissinghurst Park Wood, 1948 **MNE**. Roundshill Park Wood 1947. Chittenden Wood 1946 **MNE**. Copden Wood, E. of Sissinghurst, 1954, **MNE**.

14) **E)** Brogues Wood, Biddenden. Wood E. of Clapper Hill, S. of Biddenden.

16) Copse in Sandling Park, E.S.M. Kiln Wood in a ride, 1958! **MNE**.

[Genera and species continue with POLYGALACEAE, as far as:]

Polygala L.

P. austriaca Crantz Dwarf Milkwort N

[*The MS included reference to:*Down E. of Rumsted Court, Hucking....[Magpie Bottom, Shoreham, F.R.] in valley, and by old pit [1946], about 50 plants [1956]....Little Gains..61/127461 {Ray Clarke 1954}....Downs N. of Podlinge Farm, 1948 and later....Whiteacre Farm Waltham, L.W.W....Down by road, N. of Longport Farm [E. Glendenning 1964, F.R. 1981]....Pett Street Down..a few plants [F.R. 1946]....abundant (over 150 plants seen in

several years) on strip of E. facing downland W. of Crundale (at Longport)..with a few white flowered plants [F.R. 1950-64]....chalk turf at The Nower, Brasted [Ray Clarke 1954, F.R. 1958 over 100 plants].....]⁸²

STAPHYLEACEAE

Staphylea L.

†**S. pinnata** L. Bladdernut. Naturalised nr. Otford H [account not yet transcribed]

HIPPOCASTANACEAE

Aesculus L.

†**A. hippocastanum** L. Horse-chestnut. Well-naturalised and self-sown. [account not yet transcribed]

ACERACEAE

Acer L.

†**A. platanoides** L. Norway Maple Naturalised from seed in woods, etc. H
[account not yet transcribed]

A. campestre L. Field Maple. N [account not yet transcribed]

†**A. pseudoplatanus** L. Sycamore. D [account not yet transcribed]

†**A. saccharinum** L. Silver Maple. Planted, but self-sown seedling recorded. H
[account not yet transcribed]

†**A. negundo** L. Ashleaf Maple Naturalised in one place. H [account not yet transcribed]

[This is as far as the checklist goes. The remaining species accounts are in given in the order in which they appear in *Stace, 2nd edition*, which was current at the time of the checklist preparation.]

....

Hydrocotyle vulgaris L. Marsh Pennywort

In relation to district 15: Almost always in shingle depressions (**TR01**): Dungeness Marsh (*probably Open Pits*) in 1956 (**TR0718**); and Boulderwall in 1956 (tetrad **TR01U**)

....

Eryngium campstre L. Field Eryngo

....very common on sand dunes....west of Calais, and on the chalk inland frpm Cap Nez Blanc, so probably native in Kent, it is only surprising that it is so rare with us....⁸³

....

Scandix pecten-veneris L. 15, 16. Shepherd's Needle

Colonist. Arable land and waste open ground, especially on sand and chalk: not very common, but well distributed.

1st record, 1629: Gravesend to Rochester, Johnson, *Iter*, p.2.

1) 56 Old Swanley, in fields, 1948.

2) 76 Railway Bank, Cuxton, 1944, 1946. 96 Sandy banks by A.2, S. of Green Street, Teynham. 77 Minster, Sheppey, A.G. Davis, 1917, **MNE**.

3) 06 094647, etc., cornfields on L.C., E. of Seasalter Church, 1958, H.M.P. Graveney, farm weed, R. Theobald, 1956.

4) Field at Hacklinge, 1946. Field S. of Sandwich, 1948, **MNE**.

5) 56 Cornfields W. of Shoreham, F.R., 1945. 55 Dunton Green, 1916, Hb. Davis, **MNE**. 45 Cornfield E. of Westerham Hill, 1958, R.A. Clarke. 46 arable, Leaves Green, 1956, Miss A. Hills.

6) 57 Greenhithe, 1946. 66 605666, Hartley, Mrs Woods. 67 Shingle Well, 1912, C.E.B. **BM**. 76 Cuxton, 1939, J.B.M. **BM**.

7) Cornfield, Westwell, E. Scott. Magpie Farm, Bredhurst, 1960 **MNE**.

8) Coombe Vale, Dover, 1945. Bishopsbourne, 1946 **MNE**. Bossingham, Miss Milward, 1959. E. of Dover, 1948 **MNE**. Cornfield, Stelling Minnis, Mrs M.J. Comyn. Sibertswold, Cornfield, D.P.Y.

10) Cornfield, Dunton Green station, P.C.H.

⁸² Taken from Rosemary FitzGerald's notes of the species account. Additional square brackets are introduced where the text may not be an exact transcript.

⁸³ Taken from Rosemary FitzGerald's notes of the species account.

11) 85 Stubble field, Fairbourne Lane, 1960, Mrs B.Dodds. Field by R. Eden, W. of Penshurst, 1944 **MNE**. By Medway, Tonbridge, E. of Cannon Bridge, C.A.S. Platt, D. McClintock, 1959 **MNE**. [Edenbridge 1906 D. Smith **MNE**] Arable near Marsh Green, Edenbridge 439448, 1958, PCH.

13) Sandy arable land S.W. of Pembury, 1944, J.R.W. & F.R.

†**Myrrhis odorata** (L.) Scop. 16 Alien, very rarely naturalised.

11) By road in Honnors' Nurseries, Allington. Mote Park, L.R.A.G., 1957 **MNE**.

....

Sium latifolium L.

In Kent nearly confined to Romney Marsh and its adjacent alluvial levels where still widespread, frequent and locally very plentiful. Localised records for district 15:

TQ82: South of Small Hythe (**TQ894298**); levels south of Wittersham Road Station (**TQ8628**); and on Hexden levels

TQ83: Tenterden "Bottoms"

TQ92: southwest of Appledore (tetrad **TQ92P**); south of the Stocks, Wittersham (tetrads **TQ92C** and/or **92D**); east of Appledore (tetrad **TQ92U**); and Snargate (tetrad **TQ92Z**)

TQ93: abundant on Shirley Moor [**MNE**]; Reading Street (**TQ9230**); Prebble; south of Kenardington (tetrads **TQ93Q** and/or **93V**); and south of Warehorne (tetrad **TQ93V**)

TR02: Hook House, Brenzett (*ca* **TR000282**) [**MNE**]; south of Ivychurch (tetrad **TR02I**); north of Old Romney (tetrad **TR02H**); 1 mile west of Dymchurch on St Mary's road (**TR0829**); and 1 mile south of Orgarswick (**TR0929**)

TR03: plentiful south of Ham Street (tetrad **TR03B** *etc*); south of Ruckinge (tetrad **TR03G**); east of Sherlock's Bridge (tetrad **TR03R**); south of Bonnington (tetrad **TR03M** *etc*); and Bilsington in 1958 [**MNE**] and southward in 1956 (tetrad **TR03L** *etc*).

TR13: Dyke southeast of Burmarsh in 1958 (tetrad **TR13A**) [L.J. Margetts]

Berula erecta (Huds.) Coville Lesser Water-parsnip

Localised record for district 15: dyke below The Roughs, west of Hythe in 1958 (**TR1333?**) [L.J. Margetts]

....

Oenanthe fistulosa L. Tubular Water-dropwort

In relation to district 15: Brackish, calcareous and weakly acid waters, usually stagnant. Localised records:

TQ82: Sandhurst Levels in 1954 [**MNE**]

TQ92: Snargate (tetrad **TQ92Z**); and dykes by road north of Oxney in 1954

TQ93: Shirley Moor (**TQ938320**) [E.S.]; south of Kenardington (tetrads **TQ93Q** and/or **93V**); Royal Military Canal; The Dowels, Appledore in 1959 (tetrad **TQ93V**) [**MNE**]

TR01: Dungeness, dyke south of Boulderwall Farm (tetrad **TR01U**); and Galloways Road (**TR040198?**)

TR02: Brenzett in 1945 (tetrad **TR02D**) [**MNE**]; 2 Ivychurch (tetrad **TR02I**); Old Romney (tetrad **TR02H**); and near Romney

TR03: south of Ham Street (tetrad **TR03B** *etc*); and Ruckinge (tetrad **TR03G**)

TR13: Near Selby Farm, south of Lympne in 1958 (**TR1033**) [**MNE**].

....

Oenanthe pimpinelloides L. Corky-fruited Water-dropwort

In relation to district 15: Only on disused damp claypits at Potman's Heath (west end of Isle of Oxney), where abundant in 1955 [P. & J. Hall, G. Brown and F.R. – **MNE**]; thought destroyed 1961 but still present in 1980.

Oenanthe lachenalii C.C. Gmel. Parsley Water-dropwort

In relation to district 15: Locally common in Marsh. Localised records:

TQ92: southwest of Appledore in 1955 (tetrad **TQ92P**); and west of Brenzett (**TQ9927**, possibly **TR0027**)

TQ93: Shirley Moor in 1954 (**TQ940320**) and in 1955 to south (tetrad **TQ93G** *etc*) [**MNE**]

TR01: Widespread: dykes southwest of Boulderwall Farm, Dungeness (**TR0619**); and South Brooks, south of Lydd (tetrads **TR01I** and/or **01J**)

TR02: Ivychurch (tetrad **TR02I**) and much of Romney Marsh area; Snave (**TR0129**); hollows of Romney Warren (tetrad **TR02S**); south of Littlestone in old estuary in 1950 (tetrads **TR02S** and/or **02X**); and hollows of Greatstone dunes in 1947 (tetrad **TR02W?**)

TR03 : south of Ham Street (tetrad **TR03B** etc)

TR13: near *Prince of Wales* in hollows of shingle beach west of Hythe in 1947 (**TR142337**) [MNE]; and sandy area behind sea wall 1½ miles northeast of Dymchurch in 1947 (tetrad **TR13A**) [MNE]

Oenanthe crocata L. Hemlock Water-dropwort

In relation to district 15: Probably absent from the Levels, though found at Dungeness (**TR01**) and east of Reading Street in 1956 (tetrad **TQ93F**). Abundant in the Weald.

....

Oenanthe aquatica (L.) Poir Fine-leaved Water-dropwort

Common in district 15, notably in Brenzett and Snargate area. Localised records:

TQ82: dyke south of Small Hythe in 1952 (**TQ894298**) [D. McClintock]; and Hexden Channel

TQ92: Snargate (tetrad **TQ92Z**); Appledore (tetrads **TQ92P** and/or **92U**); and near Snargate (**TQ987295**)

TQ93: Shirley Moor (**TQ933322**) [E.S. – MNE]; The Dowels northeast of Appledore in 1959 (tetrads **TQ93Q** and/or **93V**) [MNE]; Royal Military Canal, Kenardington (**TQ980315**); and Appledore Heath (tetrad **TQ93K**)

TR02: Brenzett (tetrad **TR02D**); Ivychurch (tetrad **TR02I**); dyke northeast of Old Romney in 1959 (tetrad **TR02H**) [MNE]; and northeast of Ivychurch in 1955 (**TR037285**)

TR03: south of Ham Street (tetrad **TR03B** etc); dyke 1 mile south of Bilsington in 1958 (**TR0432**) [MNE]; and Orgars Wick in 1947 (tetrad **TR03V**)

TR13 : dyke south of Burmarsh in 1947 (tetrad **TR13A**); ditch near Selby Farm, south of Lympne in 1958 (**TR1033**) [MNE]; and dyke east of Burmarsh in 1948 (tetrads **TR13A** and/or **13B**) [R.M. Payne].

....

Silaum silaus (L.) Schinz. & Thell. Pepper-saxifrage

In relation to district 15: Almost absent but with localities: south of Royal Military Canal by lane south of Bilsington in 1956 (tetrads **TR03G** and/or **03L**); and Potman's Heath in 1956 (**TQ82U**).

....

Bupleurum fruticosum L. Naturalised alien: very rare †16

6) Railway bank, 570693, N. of Horton Kirby, A. Badell: C.E. Britton, J. Bot. LXXIV (1936), p.355; abundant, 1946 MNE; 1957m P.C.H.: →1962! Many observers.

9) Ramsgate, A.A. **BM**.

....

Bupleurum tenuissimum L. Slender Hare's-ear

In relation to district 15:

Old records: south of Dymchurch in 1863 (tetrad **TR02Z**) [J.S.M. in Cat. Pl. Soc. Kent]; northeast of Romney (**TR02**) and west of Hythe (**TR03/13**) [F.J. Hanbury]

Localised (more recent) records: South Brooks by Saltings in 1947 (tetrads **TR01I** and/or **01J**) [J.H. Lorinder]; and Littlestone promenade in 1950 (tetrad **TR02X**) [MNE]. No records inland.

....

Bupleurum rotundifolium L.⁸⁴ Thorow-wax

Extinct. Formerly as an abundant colonist in the chalky cornfields in the district between Crayford... and Swanley on the west and Higham, Shorne, Cobham on the east... also in Thanet, about Chatham, Ospringe, and near Tunbridge Wells. 16th—18th Centuries. Not recorded since F.J. Hanbury's record at Swanley in *Fl. Kent* (1899).

First record, 1629: Gravesend to Rochester, Johnson, *Iter plantarum*... p.1.

....

Apium graveolens L. Wild Celery

In relation to district 15: Locally common. Localised records:

TR02: Lydd (tetrad **TR02K** etc); Ivychurch (tetrad **TR02I**); Old Romney (tetrad **TR02H**); and Dymchurch (tetrad **TR02Z**)

TR13: Brackish sewer 2 miles west of Hythe in 1957 (L.J. Margetts).

....

⁸⁴ This account extract is taken from a typed transcript made by Rosemary Fitzgerald c. 1985.

Petroselinum segetum (L.) W.D.J. Koch

Localised records for district 15:

TQ92: roadside between Appledore Station and Snargate in 1959 (**tetrad 92Z**) [MNE]

TR01: Dungeness, near lighthouse in 1945 (**TR088168** etc) [N.Y. Sandwith & J.P.M. Brenan – BM]; and railway, Lydd Station in 1952 (**TR049215**) [K.E. Bull]

TR13: beach west of Hythe in 1954.

.....

Sison amomum L. Stone Parsley

Localised records for district 15: by Royal Military Canal, Burmarsh road, west of Hythe in 1958 (**TR138340**) [L.J. Margetts]; and southwest of Brookland, as far as the Sussex border, in 1954 1954 (tetrads **TQ92R**, **92S** and **92X**).

...

†**Falcaria vulgaris** Bernh. 15 Longleaf

Alien, but completely naturalised; in chalk grassland; very rare and local, confined to Thanet and neighbouring parts of East Kent.

1) [Hayes Place, DMCC; extinct by 1937.]

4) N. of Wingham*, 1858; G. Dowker; 1890, J. Bot. 1889, p.272; 1890, *Fl. Kent*.

8) On Chalk, Otty Bottom, S.W. of Kingsdown, Mrs G. Foggitt, 1926 B.

9) Birchington, 1886. A. Moore: 1946, Walter Johnson (*Roch. Nat.* p.12 1946). Westgate, Druce, 1887, *J. Bot.* p.182. Chalk gravel N. outskirts of Broadstairs, J.E.L.; L.W.W.; 1947!-1950 **MNE**. Abundant in chalk grassland, North Foreland Golf Course. **MNE**, 1934, J.E.L. **BM**: L.W. Wilson, 1947; 1954. In *Brometum erecti* with a typical chalk grassland associated flora. 1956, Miss B. Nash, 396703, N.W. side Road under —.

[11] Field near Maidstone, 1912, M.L. Wedgewood in Hb. F.J.H.]

This plant is locally abundant on calcareous pastures in S.W. France, S. of the Loire. Its absence further north (i.e. in Normandy, etc.) is evidence against it being native in Kent, though from its habitats and distribution in the county one might have supposed that it was indigenous.

....

Angelica sylvestris L. Wild Angelica

In relation to district 15: Rare on the Marsh proper, with only localised records elsewhere in district: Shirley Moor in 1955 (**TQ940320**); and Windmill Channel Levels in 1959 (tetrad **TQ83Q** etc).

Torilis arvensis (Huds.) Link

Colonist. Cornfields: once rather frequent in Kent, to judge from old records, which cover all our districts except 10). Now very rare, though still plentiful S. of Nash in 5).

1st record, 1777: Faversham, E. Jacob, *Fl. Fav.*, p.23.

2) Sheppey, Hb. Davis, 1918 **MNE**.

4) Fields N. of Wingham, R.G. Williams.

5) 46 Cornfield on chalky loam, S. of James Wood near Nash, S.W. of Keston, 1954, F.R. & G. Brown, **MNE**. 36 Cornfields on chalk, near Greyhound Training Kennels, c. 1 m W. of Leaves Green, 3961, 1958, plentiful, P.C. & J.F. Hall.

6) Near Wrotham,, 1774, Hb. Banks B.

8) 1 plant, Turnip field, Wingham, 1951, R.G.W.

11) Near Maidstone, Rev. Fielding, 1893 **MNE**.

16) Cornfield, above North Road West, Hythe, Miss J. Gibbons.

...

Menyanthes trifoliata L. Bogbean

Localised records for district 15: Hoppen Pits (**TR0718**) and also reported (doubtfully) from a pond near Lympe (**TR13**)

Nymphoides peltata Kuntze Fringed Water-lily

Royal Military Canal at Appledore (tetrad **TQ92P**) and to northeast (tetrad **TQ93Q**) – abundant up to 1970.

....

Myosotis scorpioides L. Water Forget-me-not

In relation to district 15: Mainly off the marsh, with localised records: south from **TQ940320** on Shirley Moor (tetrads **TQ93F** and/or **93K**); and Small Hythe in 1956 (**TQ88296**).

Myosotis secunda Al. Murray

Localised records for district 15: by a dyke, Brenzett (**TQ92** or **TR02**); Selby Farm south of Lympne (tetrad **TR13B**); and Old Romney (tetrad **TR02H**).

....

Stachys palustris L. Marsh Woundwort

Localised records for district 15: dykes northwest of Wittersham (**TQ82**); west of Small Hythe in 1956 (tetrad **TQ82Z?**) [MNE]; Royal Military Canal south of Appledore (tetrad **TQ92P**); Shirley Moor (at **TQ940320** etc); south of canal, Ham Street (tetrads **TR03A** and/or **03B**); south of canal, Bilsington (tetrad **TR03L** etc); Boulderwall in 1956 (tetrad **TR01U**); and Potman's Heath in 1956 (tetrad **TQ82U**).

....

Scutellaria galericulata L. Skullcap

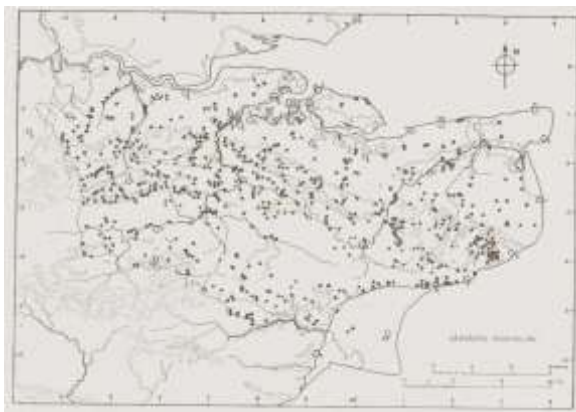
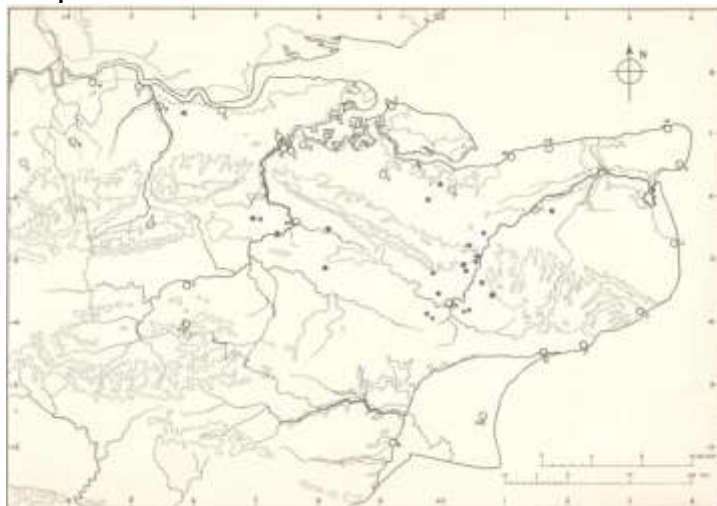
In relation to district 15: Unrecorded on Marsh but noted at: Shirley Moor in 1955 (**TQ940320**); and Small Hythe in 1956 (**TQ88296**).

....

Teucrium botrys L. Cut-leaved Germander

[The MS included reference to:[Godmersham] shown to Mrs M.E. Millward [1939]....[E. Robinson 1949]....Rough ex-arable field on chalk downs above Eggarton Manor 61/0185 503 [F.R.]..rare....]⁸⁵

....

Glechoma hederacea L. Ground Ivy⁸⁶**Clinopodium ascendens**⁸⁷**Clinopodium calamintha** (L.) Stace

⁸⁵ Taken from Rosemary FitzGerald's notes of the species account. Additional square brackets are introduced where the text may not be an exact transcript. The surviving text does not refer to the Halling site, but it would have been mentioned; Francis Rose collected from there.

⁸⁶ Map taken from Rose, F. (1955) The new Flora of Kent. *The South-Eastern Naturalist and Antiquary* **60**: 9-19.

⁸⁷ Part of a series of maps from Francis Rose's folder marked Kent Flora Maps which are generally incomplete as regards the distribution dots; but this is one of the better ones.

[in manuscript given as:]

C. nepeta L. 15, 16. Lesser Calamint.

Native. Dry hedgebanks, roadside verges and pastures on base-rich gravelly soils, frequently associated with *Rumex pulcher*: rare, but scattered along the valley- and river terrace-gravels of the N. Kent coastal plain, from Abbey Wood, Plumstead to Faversham, where it is locally abundant, formerly more widespread, from Charlton to Thanet; an outlying locality exists at Leybourne on the Medway gravels. This interesting and pleasantly-scented plant is a drought-resistant “Southern-Continental” species: it remained fresh right through the great drought of 1959. In Kent it appears to be on the edge of its range, being very common in parts of Essex, Suffolk and Cambridge. In the past it occurred very rarely in Surrey and Sussex, but there are no recent records. It occurs in similar gravelly places at the mouth of the Somme, but not in Pas de Calais.



1) Dry grassland on roadside and banks, Lessness Abbey, 1948, R.A.B. 1949: AHWD: [Charlton: Plumstead: Belvedere]

2) Roadside of A249, between Key Street and Bobbing, abundant, 1945-62 (MNE). Dry pasture opposite Davington Priory, 1839, Cowell: L.W.W., 1955-1959!

(MNE). Davington Churchyard, H.M. Wilks, 1960. Roadside bank between Teynham and Conyer, 1955. By A2, London Crossroads: by A2, Syndale Bottom turning, R.E. Wood, 1950.

6) By Darenth Rd, s of Dartford, H.M.P., 1961. Stone Church Yard, 1948, H.M.P. Abundant in dry gravelly pastures and road verges about 584741 Stone Castle, 1945 (MNE), 1948, 1964, H.M.P. [Darenth, Syme.] [Cobham, Ridley.] Green Street Green, in dry turf near the, Cooper, Fl. Met.: 1947 (MNE): - 1961, H.W.P.

7) Roadside of A249, between Key Street and Chestnut Street: S.W. of Chestnut Street, 1945-62, MNE, abundant.

[9] Dry banks at Westwood: Upton: & Nash, Fl. Thanet.]

[10] Roadside W. of Eynsford, 1863, J.S.M.]

11) Dry pastures around Leybourne Church and Castle; and in the Churchyard, W.M.R.; 19..-1961, MNE. 1st record, 1629: Gravesend to Rochester and Gillingham to Sheppey. Johnson. *Iter*, p.5.

....

Lycopus europaeus L. Gypsywort

Localised records for district 15: at inland edge of Marsh east of Oxney, probably rare (tetrad TQ92N?); Shirley Moor in 1955 at TQ940320 and to south (tetrads TQ93F and/or 93K); and southwest of Dymchurch (tetrad TR02Z).

....

Mentha x verticillata L. Whorled Mint

Localised records for district 15; Ditch southwest of Small Hythe in 1956 (TQ888296).

....

Mentha aquatica L. Water Mint

In relation to district 15: On the Marsh at Dungeness only (TR01). Off the Marsh at: dykes at TQ940320 and to south on Shirley Moor (tetrads TQ93F and/or 93K); and dyke south of canal bridge in 1956 (tetrad TR03G).

....

Mentha pulegium L. Pennyroyal

....its phase of abundance appears to have coincided with a type of rural economy now past, namely the regular use of commons and village greens as pasture by the local commoners.⁸⁸

....

Callitriche platycarpa Kütz. Various-leaved water-starwort

In relation to district 15: Dyke south of Aldington Knowle, near Sherlock's Bridge, Romney Marsh in 1958 (tetrad TR03R) [MNE].

Callitriche obtusangula Le Gall

Blunt-fruited Water-starwort

Localised records for district 15: dyke on Romney Marsh, near Selby Farm, Burmarsh in 1958 (tetrad TR13B) [MNE]; and ditches at Lydd in 1891 (TR01 and/or TR02) [E.S. Marshall – SLBI and Oxford herbarium].

....

⁸⁸ Taken from Rosemary FitzGerald's notes of the species account.

Callitriche hamulata Kütz. ex W.D.J. Koch Intermediate Water-starwort

Localised records for district 15: Brenzett (tetrad **TR02D?**); ditch by Burmarsh road, Hythe (**TR13?**) [L.J. Margetts]; ditch near Hexden Channel (**TQ82**); ca 1 mile east of Appledore in 1954 (tetrad **TQ92U**); south of Ox pond in 1955 (**TR035308**); pond southwest of Ivychurch (tetrad **TR02I**); and dyke north of moat, Old Romney in 1958 (tetrad **TR02H**).

....

Scrophularia auriculata L. Water Figwort

In relation to district 15: no records on the Marsh except: by roads west of Newchurch in 1955 (**TR038304**); and Royal Military Canal, Kenardington in 1959 (tetrad **TQ93Q**).

....

Veronica scutellata L. Marsh Speedwell

In relation to district 15, on peat - all records in **TR01**: Dungeness Fen by Hoppen Pits (**TR0718**) [G. Dowker]; fen V southeast of Hamilton Farm, 1945-1958 (!) [MNE]; ditch south of Boulderwall Farm in 1961 (tetrad **TR01P**) [MNE]; and Long Ballast pit north end in 1952 (**TR079187**) [D. McClintock].

Veronica beccabunga L. Brooklime

In relation to district 15, probably rare, partly due to brackish nature (of the Marsh) and continual cleaning. Only localised record in district: ditch on Sandhurst Levels in 1954 (**TQ82**) [MNE].

....

Veronica catenata Pennell Pink Water-speedwell

In Kent, generally rarer than *V. anagallis-aquatica*, but the commoner species on the Marsh. Localised records for district 15: ditch northeast of Old Romney in 1959 (tetrad **TR02H**) [MNE]; ditch south of Small Hythe in 1952 (**TQ894298**) [D. McClintock]; and probably this also at Aldington and Hythe in 1956 (**TR03/TR13**).

....

†Lathraea clandestina L.

13) Earls Road, Tunbridge Wells, 1947, A. Graseman.

Orobanchae L.**[O. ramosa** L.

Alien, parasitic on hemp (*Cannabis sativa*), formerly occurring in hemp fields; hemp is no longer cultivated and the species has not been reported in Kent for over 150 years.

2) Sheppey; near Faversham, Hudson, *Fl. Angl.*, Ed. 2, (1978) p.266.

6) Near Rochester, Hudson, *Ibid.*; Field S. of Rochester by Maidstone Road, O.B.G., 1805.

8) Hougham, O.B.G.

O. purpurea Jacq. 15 Blue Broomrape 1/51

Native. Parasitic on *Achillea millefolium*; extremely rare.

8) Bishopsbourne, Anon., *Ann. Mag. Nat. Hist.*, III (1830) p.435. Plentiful on *Achillea*, on neglected allotments, Bishopsbourne village, 1955, B.J.B.; 1955! 1958! **MNE**. Part of the rough field was ploughed in 1958; afterwards in 1958 and in 1959 the plant was much more abundant in the part that had been ploughed than in the part that was kept! 1960, not seen (field grassed). 1961, one only by hedge. 1962, not visible.

Not certainly recorded for Sussex, not at all for Surrey: one ancient record (near Bethune) for Pas de Calais. It still occurs on the cliffs of the coast of N.E. Norfolk and has records for Hampshire, chalk river scarps S. of Rouen, Seine-Maritime, 1961!

O. rapum-genistae Thuill. 15, [16] Great Broomrape. 5/51

Native. Parasitic on *Sarothamnus scoparius*, more recently on *Ulex europaeus*: formerly not uncommon, now very rare in a few bushy places and woodland rides.

1st record, 1597: (On broom) Shooters Hill, Gerard, *Herbal*, 1597

[1] Old records for Shooters Hill: Charlton Wood, Curtis: Eltham, *Fl. Met. Supp.* W. Wickham, 1888, A. Steward.]

[2] Gillingham to Sheppey, Johnson, *Iter*, 1629, p.5.] Broom above Boughton street 1958 Mrs B., 3 spikes in flower.

3) Near Ellbridge, plentiful, F.J.H.; on broom, Gravel pit, Swanton Farm, Littlebourne, 1956, E. Scott, Mrs B. Nash et al.: probably the same locality. Old Park, Canterbury, F.G.E.K. [Bigberry Wood, Mitchinson (as *O. elatior*)]

- [4] Preston, F.J.H. Near Sandown Castle, F.G.E.K. Upper Deal, Miss L. Day.]
- [6] S. end of Darenth Wood, 1861, J.S.M. (Hb. **Mill**). Cuxton, Bossey.]
- [7] Newnham Road, in gravel pit: Coxett Wood, Fl. Fav.] [Path, Lordswood Lane Walderslade to Gibraltar from 1917, S. [Ashman].]
- 8) [Covert Wood, on Broom, F.G.E.K. Between Dover and Folkestone, E. de C.] [By Crete Road, Folkestone, on Ulex, Miss Day] West Wood, Stowting, 137424, on broom in ride on Pliocene sand, 1958 Mrs. D. Rowlands, 1960 Miss D.A.C.L.
- [10] Field by Sevenoaks Gas works, F.J.H.]
- 11) Offham, C.A. Stevens B. Barming Heath, E.M.H. On Broom and Gorse on heathy ridge on Folkestone Sand N. of A.20, 1m W. of Hollingbourne 1951, E. Scott, c.100 spikes, 1951; c.70 spikes, 1952; 1953! 1962! **MNE**.
- 12) Edge of Bourne Wood, Orlestone, 1946 C.N.P. & E.S. Ashford Warren, W.R. Jeffrey, 1901, Lady Davy; c.1930, Miss West. Ride at S. end Horns Wood, E. of Ruckinge, 1957, E. Scott; 1958!
- 13) On way to High Rocks, Forster, *Fl. Tonb.* (as *O. elatior*).
- Rare and not recently reported in Surrey, now very rare in Sussex, no recent record for Essex: very rare in Pas de Calais.

O. caryophyllacea Sm. 15 Clove-scented Broomrape 3/51

Native. Parasitic on *Galium mollugo* on fixed calcareous sand-dunes, in chalky s[outh]-facing hedgebanks, and on chalk cliffs near the sea in East Kent; rare and extremely local, in seven localities from Folkestone to Sandwich Bay; at the last locality it is, however, abundant.

Confined in the British Isles to East Kent; frequent on the fixed coastal dunes of the Pas de Calais (Sandgatte! Ambletuse!).

1st record, 1828; Folkestone, G.E. Smith in Loudon's *Mag. Nat. Hist.*, *I*, p.398. See C.P.S.K. (1829) pp.34-6 for valuable remarks on this species.

4) St George's Golf Links, Sandwich Bay, FJH; 1946-56 **MNE**; abundant over a wide range of fixed dunes from 362578 to 358588. [Sandhills, Deal, Duthie.]

8) [Undercliff E. of St. Margarets Bay, FGEK; 1939, Hb. F.A. Hanbury; Syme.] On lower part of Cliff (above railway east of Abbots Cliff Tunnel) E of Lydden Spout c.285389; C.P.S.K. site: 1945! 1949! **MNE**. East Wear Bay c.243372, C.P.S.K.: JEL, 1925; 1950! **MNE**. [Formerly too[.]] near Warren Halt, Miss V Day.] Sugar Loaf Hill 223378, C.P.S.K. (hedge at base, 1939, B.J.B.; 1948! **MNE**) **MNE**: Ref to E, 1951, Miss DACL. Hedge at base, Caesars Camp, Folkestone, 214377, JEL, 1948. Hedgebank of A.2, SE of Kearsney, 1953, 23 spikes, **MNE** 295437. Hedge S.W. of Chilverton Elms Farm, Hougham, 1955, B.S.B.I. Excur[sion]! 282407. W Hougham, on *Galium*, 1948, CH Hornsey – prob[ably] another site.

[16] Sandgate, G.E. Sm. (**BM**).] Shornccliffe, 1985, FR & RoF, S. side r[oad], 191351.

O. elatior Sutton⁸⁹ 15,16. Tall Broomrape 7/51

Native. Parasitic on *Centaurea scabiosa* on grassy banks, scrub, and old pits on chalk: very rare.

In Surrey and in Sussex, rare on the chalk: rare in Essex but locally common on chalk in the N.W. of the county: very rare in the Pas de Calais.

1st record, uncertain: none of those in Fl. Kent are very satisfactory, and may all refer to *O. rapum-genistae* or some other species.

6) 66 Pilgrim's Way, N. of Trottiscliffe Church 644610 to 646612: 1915, H. Elgar **MNE**; 1945! 1 spike; 29 spikes, 1955; many spikes, 1957. O. Davis: 1958-61! **MNE**. 57 S. of Stone, Field N. of A2, opposite Darenth Woods, 578734, H.M.P.: dozens of plants 1955-56. Bean, Rev. B. Glennie: Hb. Glennie (**BRIST**). 77 Chalk pits, W. of Cliffe, 1958 **MNE**. Halling Downs; roadside, Cuxton, M. Atkins. Pilgrim's Way, between Detling and Boxley, 1913, H. Elgar **MNE**. 94 Pilgrim's Way, Westwell, Miss M. Cobbe, B.E.C. Rep. 1923, p.204; E. Scott, 1947. 76 Rectory Chalk pit Wouldham, 1938, J.B. Marshall. 15 Bank, Bonnybush Hill, Kingston, 199518 – 200517, 1939, B.J.B.; 1946-62! **MNE**. 25 Roadside Chalk banks, E. of Bekesbourne, 212547, 1948, B.J.B. 21 Roadside S. of Adisham, 210551, 1962, B.J.B. & R.G. 57, 66, 76, 77, 94, 15, 25

(Reported "nr. Woolwich" in Fl. Met.; at Bigberry Wood by Mitchinson; and near High Rocks, by Forster in Fl. Tonb. —probably all really *O. rapum-genistae*.)

O. hederæ Duby⁹⁰ 15, 16 Ivy Broomrape 4/51

⁸⁹ Although the records in this account begin with botanical district 6 (the Chalk between Darent and Medway), their subsequent layout is somewhat confused by the abandonment of references to districts 7 and 8, leaving one to follow the 10km square grid references, where given.

Native. Parasitic on ivy, only recorded on chalk in Kent; extremely rare.
Extremely rare in Surrey (Kew Gardens, Betchworth and Witley), unrecorded in Sussex, Essex and the Pas de Calais.

1st record, 1873: Kent east, Borrer, in *Top. Bot.*: the locality is not known.

This species has very short rootlets which form no secondary attachments, unlike *O. minor* (teste A.D. Greenwood in litt.).

6) Wood on the side of the chalk hills, near Shoreham, 1868, J.S. Mill in Hb. **Mill**. By Mounts Road, Greenhithe, 1948, one spike.

8) Among Ivy in woods E. of A.2, Kearsney, 1928, Miss J. Gibbons. Chalk hedgebank, one spike on Ivy, Knowlton, 1949, P.R. Bell & F.R.: 1950, F.R. **MNE**. One spike among Ivy, 313506, Willow Wood, N. of Sutton, 1955, B.J.B. & F.R.

O. artemisiae-campestris Vaucher ex Gaudin

[In manuscript given as *O. picridis*, to which the name has reverted since Stace, edition 2:]

O. picridis f.W. Schultz ex Koch 15 Picris Broomrape. 2/51

Native. Parasitic on compositae, chiefly *Picris hieracioides*, near the sea, mostly on chalk cliffs; very rare.

Very rare in Surrey (3 records only): unrecorded for Sussex, Essex, or the Pas-de-Calais'

1st record, 1866: N. of St Margaret's Bay, Syme, *Eng. Bot.*, ed. 3, VI, p.198.

4) On waste ground, E. of A.256, S. of Ebbsfleet Hs, Richborough Port, 1949, L.W.W.; 1962, B.J.B. & R. Gorer.

8) Undercliff between St. Margaret's Bay and Kingsdown, abundant, Syme, *loc. cit.*; rare ¼ mile NE of St. Margaret's Bay, 1946, 1947! Not seen, 1953; abundant at St. Margaret's Bay, 1957! **MNE**.

Dover E. Cliff, near sloping path, B.J.B.[rooke] 1947, L.W.W. 1948, a few plants, 1954-55!; 1959; 1960; 1961; 1962.

In Kent, I have only seen this plant myself on the ledges of steep chalk cliffs.

O. minor Sm. 15, 16 Lesser Broomrape 29/51

Native. Parasitic upon Papilionaceae, more rarely on other families: scattered through the county and not uncommon on chalky or sandy soils; sometimes abundant in sown clover fields.

Frequent in the adjoining counties and locally so in the Pas de Calais.

1st record, 1724: Cuxton, Rand, in Ray, *Synopsis*, ed. 3, p.288.

1) [56 Formerly about Charlton, D.G.B.] 56 Rough sandy field W. of Farningham Wood, P.C.H.

2) 06 Old Brickworks near W—house, Faversham, 1954, R.E.W. 06 Murtons Farm, Graveney, 1956, R. Theobald.

3) 06 By Thanet Way on clover (and ? wild carrot?) 200 yds N. of Brenley Corner, 1959, H.M.W.

4) 35 Princes Golf Links, Sandwich Bay **MNE**. 35 Hacklinge, 1946 **MNE**. Stone Cross, Sandwich, C.C. Townsend. 36 Ash, 1948. 26 Stodmarsh, in clover field 1949 **MNE**. 35 Track to Downs Farm E. of Sandwich, 1954 RGW. 25 Staple, a clover field, 1949.

5) Jewells Wood, Salt box, A.G. Davis, 1910 **MNE**. Roadside S. of W. Wickham, 3864, 1956, R.A.C.

6) 57 E. of Dartford, 1946, J.E.L., R.L. & D.H.K. 67 Northfleet 1946. 665636, Dode Church, Mrs Woods. Eynsford Railway bank, F.J.H. 57 on clover, S. of Greenhithe, 1946 **MNE**. 67 S. of Wombwell, Gravesend, 1946. Swanscombe Wood by A2, K.E.B., 1955. Hatch Hill, Luddesdown, 1951, DMcC. 76 Cuxton, Lower Bush, roadside, 1953, RGW.

7) 76 Bluebell Hill, A.G. Davis, 1918 **MNE**.

8) 05 E. of Chilham, R.G.W. 15 Bourne Park, Bridge, R. Gorer. 15 Bonny Bush Hill, Kingston, 1955 **MNE**, 1958 D. Stainer **MNE**. 25 Barham Downs, 1939; 1946; 203520, 1958. 25 Fredville, DMcC. 25 Adisham, 1948. 25 Road near Denne Court S.W. of Woodnesborough, 1962. a[abundant], Cloverfields, Tilmanstone, 1957, R. Gorer, yellow variety. 34 Kingsdown golf course, 1954 **MNE**. Denton, 1956, Miss D.A.C.L. 34 N.W. of St Margarets, 1946, in cloverfield 1954 D.P. Murray. 24 River, Mrs. E, Carlton, 1960 **MNE**.

10) 55 One plant, Oldbury Lane, Ightham, 1945, apparently on *Anthriscus sylvestris*. **MNE**. 1 plant, Toys Hill, near *Pyrola* site, C. Stace.

11) 75 E. Malling, J.S.M.; F.R.! 75 W. of Sandling, 1943, on roadside. 75 Aylesford Gravel pits 736588, 1957, C.A.S.: E.G. Philp, 1959 **MNE**, 1960. 85 Leeds village, 1959 **MNE**. 85 Langley, 1951. DMcC.

12) 05 Roadside verge, E. Stour Farm, Chilham, R.G. Williams. [Charing Heath. H. Lamb, 1901 **MNE**.] 04 Quarry at Sevington, 1946.

13) 54 Bidborough, 1958, on zonal Pelargonium, F.R.B. [Tunbridge Wells, Hb. Lamb, 1870 **MNE**.]

⁹⁰ Here, this account is placed in Stace (edition 2) order, before the next species; but in the manuscript it is placed afterwards.

15) 01 Near School, Dungeness, 1955: 1958, E. Scott.

O. maritima Pugsley.⁹¹ 15 Seaside Broomrape 3/51 (?4/51)

Native. Parasitic on *Eryngium maritimum* on sand dunes and on *Daucus carota* on sea cliffs: very rare, but locally abundant on the coast from Folkestone to Pegwell Bay, also reported at Dungeness.

Only detected in Sussex of the neighbouring counties (West Wittering, on *Eryngium maritimum*, 1938!): mainly southwestern in Britain. Foreign distribution not known: not in Pas de Calais.

1st record, 1866 (as *O. amethystea* Thuill.): St. Margarets, Syme in *Eng. Bot.*, Ed.3, Vol. II, p.200.

4) On *Eryngium maritimum* on foreshore of dunes, Princes links, Sandwich Bay, L.W.W.: very abundant 1950-52! det. E.B. Bangerter. Very abundant, re-appeared after flood 1953: Behind Guildford Hotel, 1953, R.E.W. Thousands of plants, 1954-1962, increasing enormously, 100,000s, 1962, for 2 miles. **MNE.** On *Eryngium*, Pegwell Bay, 1947.

8) Base of cliffs S. of Oldstairs Bay, Kingsdown, 1956 **MNE.** Undercliff, E. of St. Margarets Bay, Syme: 1946-47 **MNE.** St Margarets Bay, 1957-62 **MNE.** Dover East Cliff, 1954. Langdon Bay C.C.T. Undercliff and lower slopes of cliff, by Lydden Spout, F.J.H.; (From the Shrimpers Steps, W. of Dover, westward to Abbots Cliff 1945!-1962 **MNE** abundant, 1871-1878, A. Bennett, and in *J. Bot.*, 1928, p.168.). Folkestone Warren on *Daucus*, c.7 spikes, 1959, P.W.W. Pett Bottom, fallow field, 1916, G.L. Davidson, det. Keir as *O. amethystea* Thuill.

[15] On *Chrysanthemum leucanthemum*, Dungeness, L.W. Wilson (unconfirmed).]

The British plant was formerly regarded as identical with *O. amethystea* Thuill. Pugsley (*J. Bot.* 1926 p.18) cast doubt on this, but C.E. Salmon reported that Beck had confirmed plants from E. Kent as *O. amethystea* Thuill., though the corolla was less bent and the bases of the filaments more hairy than in the type (*J. Bot.* 1927, p.117). Pugsley has since erected the British plant into a separate species, as *O. maritima*.

....

Utricularia minor L. Leser Bladderwort

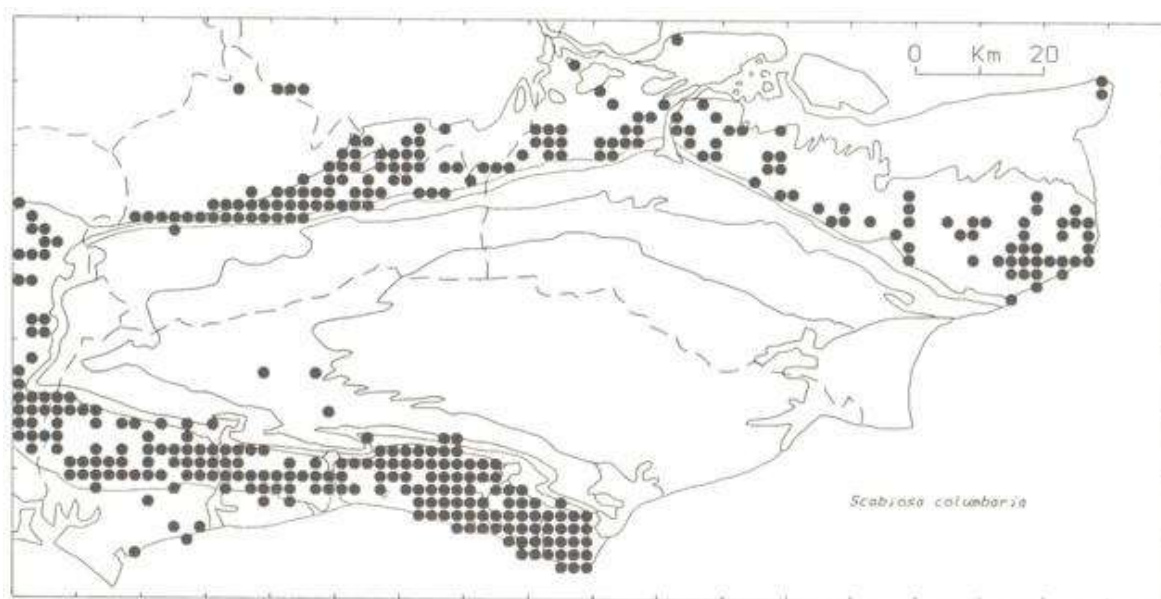
In relation to district 15: in dykes west of Hythe ca 1972 (**TR03** or **TR13**) [Miss B. Nash - Kent Field Club]. Near old record from *Bull. KFC*

....

Galium palustre L. agg. Common Marsh-bedstraw

In relation to district 15: The aggregate recorded at: Brenzett (tetrad **TR02D**); Snargate (tetrad **TQ92Z**); and Shirley Moor (**TQ93**).

Subsp. *palustre* at: Dungeness, near Old School (**TR01**); Hoppen Pits (**TR0718**); and marsh by Boulderwall, on shingle in 1956 (tetrad **TR01U**) [**MNE**]. Overall, not infrequent.



....

⁹¹ Plants in Kent thus named are currently treated as a variety of *O. minor*.

Cirsium palustre (L.) Scop. Marsh Thistle

Present in district 15. Only localised record: near Camber in 1956 (tetrad **TR01E?**).

....

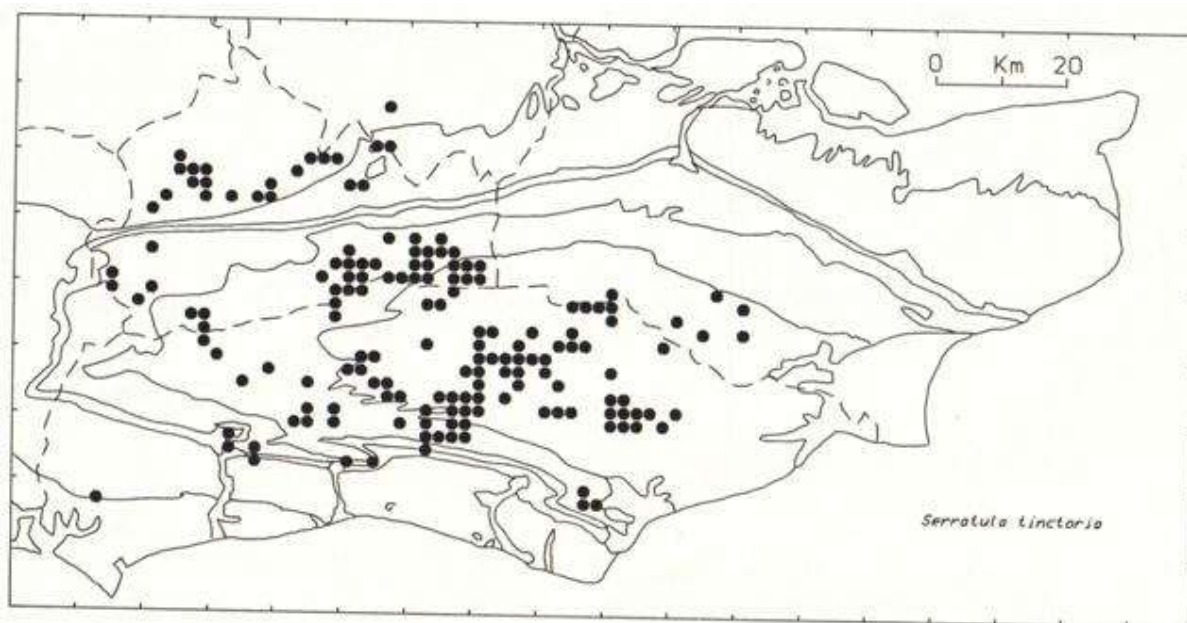
Silybum Adans**S. marianum** (L.) Gaertn.

Fully naturalised alien, or possible native: rough ground on ragstone and chalk, banks and waste ground near the sea and estuaries; local and uncommon, but abundant in several localities where it has the appearance of a native species, particularly west of Hythe to Lympe on the ragstone escarpment, at Upnor and at Higham Marshes.

[Orpington, 1852, A.A., **BM.**] [Bexley, E. Bartell, 1882 MNE.] 67 Thames River Wall, E. of Denton, 1945. 67 Chalk, 1945; 67 Shornemead, 1945 **MNE.** 77 Higham, 1938, J.B.M.: 1944! abundant. 06 N. side Harty Ferry MNE P.R. Bell, 1947. 06 Graveney Marshes, 1950, R.E.W. By road, Isle of Grain, 1946. 06 Ham Marsh Farm, Faversham, 1950, R.E.W. 57 Gore Hill, Dartford, 1946. 57 Ridge of Green Street Green, towards Lane End, 1945 MNE. 618724 By A.2. E. of Springhead, Northfleet, 1945: 67 1957, H.M.P.

6E) 77 Cockham Wood, Upnor, 773715, on sandy banks by the Medway: 1945: 1951 D.McC. 1960! **MNE.** 16 Cliff top E. of Tankerton, R.E. Wood. Cliff, Swalecliffe, 1953, R.E.W. 26 One plant Stodmarsh, by track, 1950, R.E.W. Sea wall, Reculver, Miss D.A.C.L. [65 S. of W. Malling, Gray.] 65 1 plant, Bracken Hill, *Platt*, 1949, D.McC. Sutton Valence, D.McC. [casual, Wingham? Well, E.S., 1947, 94] [Casual, Canterbury, R.G.W.] [93 Appledore Heath, asparagus estates, 1955, E.S.]

13) Abundant on Ragstone scarp, W. of Hythe, 1949: W. of Lympe Castle, abundant on ragstone, 1946-55 **MNE.**



...

Centaurea cyanus L. 15, 16 Cornflower

1) [Ruxley pits, 1958 T.H. Angel; escape?

2) Mangoldsfield, Graveney — 1 plant, 1952, R. Theobald.

3) Cornfield by A28, Hersden, 1954, R.G.W.

5) [W. of Farningham, 1948, C.W. **MNE.**]

6) [N.W. of Wrotham, 1 plant, Mrs Tatton Brown.] near Dartford, 1931, P.H.C. Pitside, Cotton Lane, Stone — escape, 562748, 1955, H.M.P.

7) Boxley, 1882, E. Bartlett MNE. Cornfield, Belmont Park, 1958, DMcC. Near Doddington, before 1958, B. Keane.

8) Cornfield, Great Watersend Farm, below Lords Wood, Lydden, 1961. Cornfields Little Mongeham, 1960, Miss J. Moore (vidi sp.): abundant 323517, 1961.

10) Sevenoaks dump, 1951, DMCC.

11) [Farleigh Station, Railway siding, one plant, 1946.] [Newly sown grass by A.20 garage, Harrietsham, 1961, B. Dodds.] [Malling 1896, H. Elgar, **MNE**.] [Yalding, 1960, E.G. Philp.] [Riverbank, Edenbridge, 1930, J.E.L. BM.]

12) [St Pauls Church Street, Canterbury, Miss M.E.M., 1958.]

13) Old cornfield, Dodhurst Farm, S.W. of Pembury, 1940, J.R.W.

Centaurea calcitrapa L. Red Star-thistle

Probably native. Dry grasslands and banks on chalk....in similar habitats near the Sussex coast and in the Somme estuary, and in those areas is probably native.⁹²

....

Sonchus palustris L. 15, 16 Marsh Sow-Thistle

Native. Tidal reed swamps along the upper part of the tidal R. Medway, rare and extremely local but locally abundant: also in freshwater reed swamps in a disused gravel pit. Now confined in the British Isles to the tidal Medway and the Norfolk-Suffolk Broadlands (from Minsmere, Blythburgh, and the Waveney Valley) to the Yare, Bure, Ant and Thorne Broadland rivers).

2) From ¼ mile below Allington lock, to Aylesford Bridge, frequent, 1942-1945 **MNE**. Aylesford Bridge to Mill Hall, 1945, left bank **MNE**. The Friars. Ditch bank, 1m NW of Aylesford below Maidstone Sewage Works, 1962. Left bank, below New Hythe, locally abundant towards Snodland, 1945, **200** spikes **MNE**. (1895, H.L. **MNE**) Right bank, below New Hythe, very abundant (>**500** spikes, 1945-1953, **MNE**. Right bank, **50** plants above New hythe, 1945. Wet copse, S. of Snodland, 1955 **MNE**. West of Eccles, **20** spikes, 1945. Island W. of Burham Cement Works, **2-300** spikes, 1945. Burham Marshes by river, frequent, 1909, H.L.M.-1953! 1 plant by roadside, Wouldham, 1946 **MNE**. By river below Dartford, P.C. Hall.

11) Leybourne Castle Lakes, 1958.

....

Lactuca saligna L. Least Lettuce

[The MS included reference to: ...E. of 'Sportsman', behind bungalows 1952....Greatstone [J.P.M. Brennan, 1954]....on disturbed shingle at N. end of Long Pit, Dungeness [F.R. & D.McC., 1947]....]⁹³

Taraxacum palustre (Lyons) DC.

In relation to district 15, recorded at Dymchurch.

....

Pulicaria dysenterica (L.) Bernh. Common Fleabane

Localised records for district 15: Dymchurch; road west of Newchurch in 1955 (**TR038304**); and south of Ox pound (**TR035308**).

.....

Achillea ptarmica L. Sneezewort

In relation to district 15: Dungeness only (**TR01**).

....

Anthemis arvensis s.l. 15, [16]

Cornfields, usually on chalk; formerly fairly frequent, now rare.

3) Cornfield border, Blean, W. of Church, R.G. Williams, 1958.

6) Rough chalky field N. of A2, Darenth Wood, 578732, 1955, H.M.P.; field S. of Darenth Wood, 572717, 1948, H.M.P. Cornfield, The Warren, S.E. of Cobham, 693677, Mrs Woods. N.W. of Cobham, 1810, NBW, **BM**.

8) Between Bishopsbourne and Kingston L.W.W. Cornfield near station, Adisham, 1949, L.W.W. Cornfield, Little Mongeham, 323317, Miss Ida Moore, 1960 (vidi sp.) **MNE**

11) A.20. Garage, Harrietsham, 1962: Mrs B. Dodds (sp!) **MNE**. ?Cornfield on Atherfield Clay, New Street Farm, Great Chart, 972407, 1952, I. We...

12) Railway sidings, Ashford, 1955, Mrs. N. Baker, det. Mrs. Farquarson.

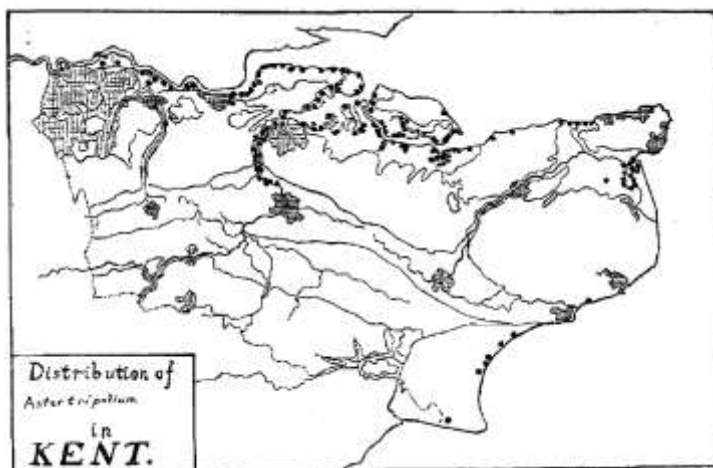
....

Aster tripolium L. [no surviving account, other than map]⁹⁴

⁹² Taken from Rosemary FitzGerald's notes of the species account.

⁹³ Taken from Rosemary FitzGerald's notes of the species account.

⁹⁴ Reproduced here from Rose, F., Distribution maps of Kent Plants (Exhibit), in Lousley, J., ed. (1951) *The Study of the Distribution of British Plants* (1950 conference report), B.S.B.I, Arbroath.

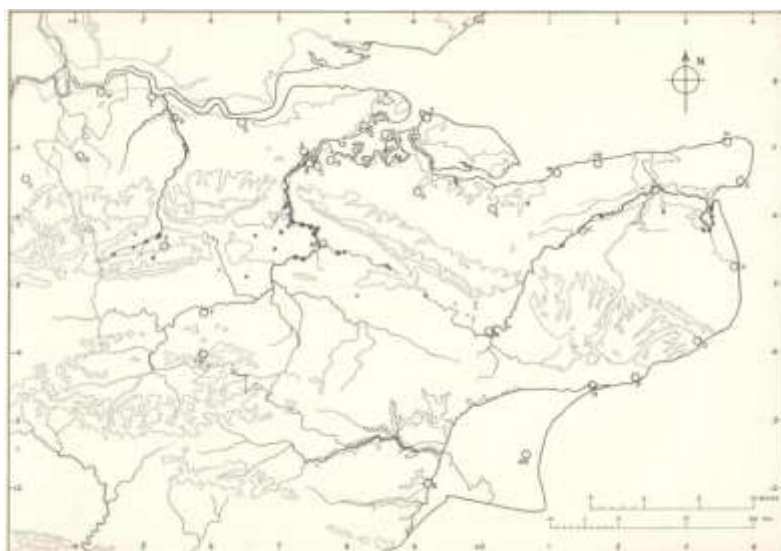


....

Senecio aquaticus Hill

Marsh Ragwort

Localised records for district 15: Sandhurst Levels in 1954 (**TQ82**); and S. of Ham Street, 1954 (tetrads **TR03A** and/or **03B**).

**Petasites hybridus**⁹⁵

....

Bidens cernua L.

Nodding But-marigold

In relation to district 15: only localised record off Marsh: dyke east of Friezingham, near Windmill Channel, Rolvenden, 1950 onward (tetrad **TQ83Q**).

Bidens tripartita L.

Trifid Bur-marigold

In relation to district 15: Dungeness only (**TR01**).

....

Eupatorium cannabinum L.

Hemp-agrimony

In relation to district 15, no records on Marsh, though noted by the Hexden Channel, Newenden in 1956 (tetrads **TQ82J** or **82P?**);

....

⁹⁵ Part of a series of maps from Francis Rose's folder marked Kent Flora Maps; the distribution dots may be incomplete.

Liliidae (Monocotyledons)

ACORACEAE

ARACEAE

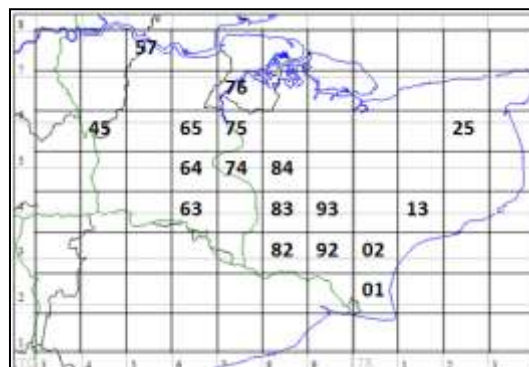
LEMNACEAE

ALISMATACEAE

Sagittaria L.⁹⁶

Sagittaria sagittifolia L. 15,16 Arrowhead

Native. Slow flowing rivers and marsh ditches: rare generally and decreasing, but still locally common in the Beult and Teise systems in 11) (apparently almost extinct in and by the Medway itself) and in 15). Very rare in 4), 2), 10) and 13). Rather rare in Surrey, local in Sussex and Essex and Pas de Calais.



2) [Stone Marshes, A.C. Tagg, H.M.P. c.1949; not now.] [Crayford, 1863, Hb. Lamb **MNE.**] 57 Ditch on Dartford Marshes, 1961, Mrs AG Side. [Ditch, Scrapsgate Rd, Minster, formerly: now built on, Mrs Bryson.] 76 Ditch N. of New Hythe, 1946. 76 Snodland Marshes, 1946, in ditch by railway. 51/76 Medway, 51/57 Dartford

4) 25 Ditch below Little Britton, Wingham, 1960 **MNE**, 1962, DACL. 25 1 mile below Wickhambreaux, in Lit[tle] Stour, 1956 **MNE.** 61/25 Wingham

10) 45 Westerham, Darenth pond, Squerries Park, D.P.Y.

51/45 Westerham

11) 65 Medway below Wateringbury, 1946; not seen since. 75 East Farleigh, Ms. V. Brumby. [Not observed in Survey on Medway-Eden section, W. of Yalding, 1942-62.] [Maidstone, Hb. Lamb 1885 **MNE.** Maidstone, E. Bartlett 1887 **MNE.**] 64 Beult under bridge, Yalding village, 698499, 1962, H.M.P. 74 R. Beult, above Cheveney, Yalding, 707496, 1955. 74 Beult NE of Cross in Hand, Staplehurst, 1955 **MNE**, v[ery] a[bundant] 1962, 63. 84 S. of Kelsham, Headcorn. 84 Beult S. of Headcorn Church 831440, 1962. 74 Marden Mill Pond, 735437. 74 Above Burford, Linton, 742483, 1954. 74 Ditch S. of Elphick Fm, Hunton, 715483, 1955 **MNE.** 64 S. of Pike Fish, Laddingford, 695468, 1956 **MNE.** 84 W. of Frittenden Road Bridge, Headcorn. 74 Beult ENE of Staplehurst, abundant, 1963.

51/65 W[est] M[aidstone]. [NOT 51/44] Edenb[ridge], [NOT 51/54] Tonb[ridge], 51/64 E Peck[h]am, 51/74 Marden, 51/84 Headcorn, 51/75 M[aid]stone, 51/94 Hothfield

13) 63 Ditch S. of Lamberhurst Church, 1936, JRW: 1956! **MNE.** 63 Bayham Abey Lake, 1957, CAS.

61/63 Lamberhurst

14) Pond Palstre Court Oxney, 1958.

15) 02 W of Brenzett nr Hook Ho[use], 1945. 92 E of Appledore. 93 R[oyal] M[ilitary] C[anal], S. of Kenardington, 1959 **MNE.** 93 Shirley Moor 1945 **MNE** / Dike nr B.2080, 1965. 82 Dikes SW of Small Hythe, 1956 **MNE** 894298. 82 SW of Oxney, RGW. 82 Marsh Dikes, Ethnam, Sandhurst, 1954. 82 E of Newenden, C. Skinner. 83 Dikes E. of Friezingham, E. of Rolvenden Layne, 1959 **MNE.** 01 Dike E of Hamilton Fm, J. Hubbard.

51/01 Dungeness, 51/82 Sandhurst, 51/92 Appledore 61/02 Romney, 51/83 Tenterden, 51/93 Woodch[urch] [NOT 61/03], 61/13 Hythe W.

Baldellia Parl.

[Apparently placed before *Alisma* in the manuscript and missing, together with the beginning of *Alisma*.]

B. ranunculoides (L.) Parl. Lesser Water-plantain

In relation to district 15, recorded at Hoppen Pits (**TR0718**).

Alisma plantago-aquatica L. Water-plantain

[The beginning of this account up to records for botanical district 4 is missing. There are no records for districts 5, 6 and 7.]

⁹⁶ Placed after *Alisma* in the manuscript.

8) Pond on c[lay-] w[ith-] f[lints] above Gutteridge Fm, Denton, 1956, DACL

61/24 T.Ew. [= Temple Ewell. NOT 61/34

10) R. Darent edge, S. of Darenth, PCH. Darenth Meadows, PCH. Pond in Knole Park, PCH. By Darent, W. of Brasted, G.M.B.

51/56 Farn [= Farnborough] '56.

51/45 W'ham [= Westerham]

51/55 S'oaks [= Sevenoaks]

11) Leybourne Lakes. Tonbridge E. Marshes, '44. Pond W. of Leighbridge, Headcorn, 813454, 1962. R. Sheway, Sherway Bridge, Smarden, 867447, 1962. Pond ¼ m SE of Church, Smarden, 1962. R. Beult S. of Church, Headcorn, 831440, 1962. R. Beult nr Cross at Hand, Staplehurst, 1963. R. Teise W. of Marden 1956 **MNE**. Medway, Poundsbridge, 1963, REsh. Pond E of Hale St 683493, 1957, CAS. Ditch E of Headcorn, 849437, S. of Rly, 1962. R. Beult E of Buckhall, Betersden, 917397, 1962. Pond E of Golden Sq[uare] Smarden, '62. Pond by R. ½ m E. of Golden Square Smarden, '62.

65 WM [= West Maidstone]

75 M'stone [= Maidstone]

85 Holb. [= Hollingbourne]. NOT 51/95

51/44 Edenbr[idge], 51/54 Tonb[ridge]

51/74 Marden, 51/84 Headcorn

51/66 Birling

12) Brabourne Lees RAC. Ashford JG. Gravel pit Lake E of Chilham, 084539, ES

61/05 Chilham, 61/15 C[anter]bury

51/94 W Ash[ford], 61/04 E Ash[ford]

61/14 Stowting

13) Pond by Broadwater Lane, T[unbridge] Wells, 1960, CAS. Pond W of Speldhurst, GB Shaw. Chatfields W Pond, RAC. Boggy Wood W. of Pembury, 614395, PCH. Ditch S. of Church, Lamberhurst, 584365, 1960, CAS. Bottom Vauxhall Lane H.N. Crampton. Bayham Abbey Lakes, CAS.

T[unbridge] W[ells] 51/53

L[amberhurst] 51/63,

Cranbrook 51/73, Tenterden 51/83

51/72 H[aw]khurst, 51/82 [?]

51/92 Appledore

61.01 Dungeness, 61/02 Romney,

51/93 Woodchurch, 61/03 Bilsington

61/13 Hythe, 61/23 Folkestone

14) Beals Fm, Woodchurch, H.W. Adams

15) Dymchurch, JG. Shirley Moor, Dike SW side, '65.

16) Folkestone Warren, KDR.

Alisma lanceolatum With. 15, 16 14/52 Narrow-leaved Water-plantain

Native. Ponds and ditches; widespread but uncommon in districts 1), 2), 4), 11), 12), 14) and 15). It occurs in the alluvial areas and on the clay lands of the weald. Rare in Surrey, Sussex and Essex, unrecorded for Pas de Calais. 17 locations.

1) 46 Bickley, old Golf Course, 1956, C.A. Swain.

Orpington 51/46, '56

2) 77 Dikes, St Mary Hoo Marshes, 1958 **MNE**. 06 —.

Fav[ersham] 61/06

Cliffe 51/77

Chislehurst 61/26

4) Fordwich Marshes, '49, E. Robinson. 26 Grove Ferry, C.T.

11) 74 N. Bank of R. Beult, E. of Stile Bridge, Linton, 1945 **MNE**. 74 Teise, W. of Marden, 1956 **MNE**. 64 Pond E. of Rly, Hale St, 683493, E. Peckham, 1954-56 **MNE**.

E Peck[ham] 51/64

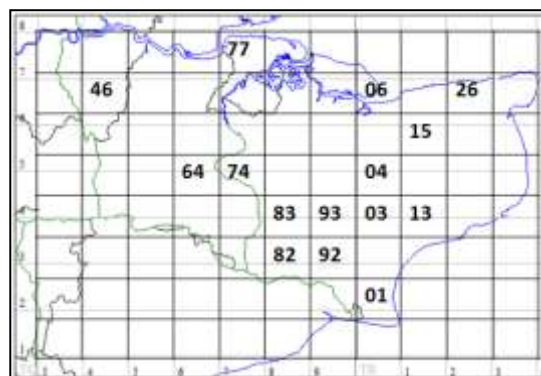
Marden 51/74

12) 03 Ditch E of Mersham Mill, 1956 **MNE**. 04 Hinxhill (Nackholt) 1956 **MNE**.

E Ashford 61/04, '56.

14) 82 Pond, Palstre Court, Wittersham, 1958 **MNE**. 92 —.

15) 82 Dike SW of Small Hythe, 1956 **MNE**. 03 R[oyal] M[ilitary] Canal, Ham Street, CAS. 93 Shirley Moor, dike on SW side, 1965, by B.2080. 83 Dike, Windmill Channel, E of Freeingham, Rolvenden, 1959 **MNE**. 01 Dungeness, F. & C.A. Swain.



W. Oxney 51/82, E Oxney 51/92

Tenterden 51/83, Bilsington 61/03

[**Damasonium** Mill.

D. alisma Mill

[15]

Star-fruit

Former native, now extinct: recorded long ago in two ponds, one in Sheppey, one at Folkestone. Still exists, very rarely, in Surrey (three localities); in Sussex (one locality); extinct in Essex. Formerly recorded for Nord. Still in Herts. This species is dying out in Britain like *Pulicaria vulgaris* apparently because the ponds in which both formerly grew are disappearing or becoming overgrown. Formerly ponds on commons and village greens were kept open by the grazing of cattle, horses and geese.

2) Field pond at East church, Sheppey; *Pl. Fav*, 1777.

[4] The records for Thanet (see Fl. K.) are almost certainly erroneous.]

13) Tuckers Pond, Angley Wood, Dr Ranger, teste A.W. Hudson, c.1890.]

16) Pool below cliffs between Folkestone and Sandgate, FGK: now lost, CPSK.]

BUTOMACEAE

Butomus L.

B. umbellatus L. 15,16 Flowering-rush 24/51

Native. Rivers, marsh dikes and ponds; uncommon, but still locally frequent in the marsh districts 2), 4) and 15), and in the Medway and its tributaries in 11); rare in 12). Now uncommon and very local in Surrey, local in Sussex, Essex and Pas de Calais.

2) [57 Dartford Mill Pond, 1945.] [Stone Marshes, 1950, 5695: now gone, H.M.P.] 77 Higham Marshes, to 1962. 76 S. of Snodland, H. Lamb, 1870 **MNE**: 1944! 76 N. of New Hythe, 1945.

51/76 Medway, 51/57 Dartford, 51/77 Higham.

4) Marshes E of Chislet, REW. 26 Marsh Side, Chislet, 225661, 1962. 15 Fordwich Marshes, 1949, E. Robinson, 1965 MEM. 35 Dikes W. of Sandwich, 1946. 26 Preston Marshes, 1962, KFC. Stodmarsh (Grove) '63, PWW. E of Reculver, Mrs B. 26 North Stream, by A.299, SE of Reculver, 1955 **MNE**. 25 N. of Wingham. Plucks Gutter, P. Grattan. East Street Marshes, Ash, W. Towers. Grove Ferry, J Gurr & Mrs B., 1961. 36 Minster Marshes, 1963.

61/15, 61/25 Wingham, 61/35 S[and]wich, 61/26 Chislet, 61/36 Thanet.

10) [Darent, Dunton Green, 1933, A. Beadell.] [Darent, Hawley: Darent, AC Tagg.] [Pit by Central Park, Dartford, before 1949, H.M.P.]

11) 65 Yalding Lees, F.W. Morris, 1868 **MNE**, H. Lamb, 1888 **MNE**. 84 Beult S of Headcorn church, 1962. 74 R. Beult, N. of Cross-at-Hand, Staplehurst, 1963. 75 Medway, above Teston. 64 Above Hartlake Bridge, 1939, JRW. 54 Medway above Tonbridge, nr Shallows, 572461, 1961, HMP. 54 Medway N. of Haysden, Tonbridge, 568459, M. Boyser. Medway below Tonbridge, 605470, 1944 FR, CAS & K Atkinson.

51/54 Tonbridge, 51/64 Beltringe, 51/74 Staplehurst, 51/84 Headcorn, 51/94 Hothfield, 51/65 W[est] M[aidstone], 51/75 M[aidstone], 61/04 Ashford.

12) Mersham Mill, 1907 D. Smith **MNE**, 1956 E.Scott. 04 S. Willesborough, E. Scott, l[ocally] v[ery] a[bundant]. 05 NE of Chilham, 085538, gravel pits, Mrs B., ES. Sevington, Stour, ES.

61/05 Chilham.

13) 63 Pond nr Bayham Abbey, 648365, CAS.

51/63 Bayham.

15) 92 Snargate, by B.2080. 02 Brenzett. 03 Ruckinge. R[oyal] M[ilitary] C[anal] N of Newchurch, DACL. 93 nr B2-8-, Shirley Moor, 1945 **MNE**, 1965. E of Reading Street. 83 Dikes E of Friezingham, E. of Rolvenden Layne, 1959 **MNE**. 01 Dikes SW of Boulderwall Fm, Dungeness, 1962.

61/01 Dungeness, 51/92 Appledore, 61/02 Romney, 51/83 Tenterden, 51/93 Woodchurch, 61/03 Bilsingham.

HYDROCHARITACEAE

Hydrocharis L.

H. morsus-ranae L. 15, 16 Frogbit 23/51

Native. Marsh ditches and ponds: locally frequent to locally abundant in 4), 11), and 15); rare in, and absent from most of 2); very rare elsewhere. A plant of alkaline fresh waters. Now rare and very local in Surrey, local in Sussex and Essex and Pas de Calais.

2) rare. 57 Abund[ant] in ditches, Dartford Marshes, at 541761 and 543772, 1962. 539767 HMP. 06 Dikes nr Sportsman, Seasalter, P.R.B. Oare Marshes, C.T. N of Hernhill, 1957.

57, [NOT 67], [NOT 77], [NOT 76], 06

4) 26 Marsh Side, Chislet, 1962, 225661. Grove Ferry, Mrs B. 35 Dikes W. of Sandwich, 1946. 25 Dikes E of Little Britton, Wingham, 1960 **MNE**, 1963 DACL. 26 Preston Marshes, 1962. 25 Deerson Marshes, 1955 **MNE**. 26 Stodmarsh, E of Newbarns Farm, 1955 **MNE**. 26 Dike, West Stourmouth, 1956 **MNE**. W. of Brooksend, Birchington, 1947, L.W.W. Plucks Gutter, 1962, DACL. 35 Worth Minnis, 1956 **MNE**. Chested Marshes, DHK.

35 E of Hacklinge. 36 Minster Marshes. 16 Westbere Marshes; to 1965, MEM. Stilmey[?] Marshes, Bretts Lakes, 1955 Mrs B. Fordwich Marshes, 1963, MEM. 25, 35, 26, 36, 16

11) Unrecorded from the Eden-Upper Medway area, but frequent in the Beult basin. 84 Pond W. of Longbridge, Headcorn, 813454, 1962. 74 Pond S. of R. Beult, Cross-at-Hand, Staplehurst, 1963. Yalding, Miss Nisbett. Pond Fm, Frittenden, RAC. 64, 74, 84, 94

12} 04, 05, 15

13) 53 Brighton Lake, Tun[bridge] Wells Common, 1960, CAS: 1 pl[ant]. 53

15) Common. 02 Brenzett. Dymchurch '56. Kenardington. Snargate. 83 Dikes E. of Friezingham, Rolvenden, 1959 **MNE**. 82 Sandhurst levels, S of Ethnam, 1954. SW of Small Hythe, 894298, DMCC. Appledore. 01 SW Boulderwall, Denge Beach. 93 Shirley Moor, nr B.2080, 1965. 92 Stone Ferry, 1946. 03 Ruckinge. R[oyal] M[ilitary] C[anal] N of Newchurch, DACL. 13 W. of Hythe. S & SE of Lydd, R.M. Payne, 1948. 01, 82, 92, 02, 83, 93, 03, 13

Stratiotes L.

S. aloides L. Water-soldier

1) Keston, up[pe]r pond, introduced, 1924, ASK.

4) [Old records for Minster, Sarre and St Nicholas area, probably errors for Hydrocharis; see Fl.K.]

15) [Pond west of road between New Romney and Dymchurch, 1875, FJH: not recorded since.]

Egeria Planch.

E. densa Planch.⁹⁷

Elodea Michx.

E. canadensis Michx.

Alien, fully naturalised. Ponds, streams and ditches: very common in 2), 4) 10), 11), 12) and 15), rare in 1), 3), 13), 14) and 16, where suitable habitats are scarce, absent in 5) – 9).

1) Pond, 375661, W of W. Wickham, PCH. Pond, Blackheath, GMB. Cray, Old Bexley, nr A2, GMB. Ruxley pits, SAS. 37, 46

2) 47 Ditches, Erith Marshes, PCH. Pit N of Shorne, 693734, PCH. 57 Ditches, Dartford Marshes, 1962. 76 Ditches, Snodland Marshes, 1943. Gravel pits, Oare Creek, 1959 **MNE**. Seasalter Marshes, PRB. 76, 47
86, 57
06, 67

[Not 77, Not 87, Not 97]

4) 26 Marshside, Chisle, 225661, 1962. 25 NE of Wickhambreaux, 1956 **MNE**. 25 E. of Lit[tle] Britton, Wingham, 1947. Hacklinge. Fordwich, J.O. 35 W. of Sandwich. 16
25 26
35

8) Swimming pool, St. Margaret's Bay, B. Dodds.

10) N of Otford, D. Lang. Darent, Shoreham; Lullingstone; Eynsford, PCH. Hawley, AC Tagg. Westerham, AGS. 45, 55, 56

11) concrete pond, Forstal, Aylesford, 1962, E.G.P. Beult S. of Headcorn Ch[urch], 831440, 1962. Edenbridge, 1907, D. Smith **MNE**. 66, 65 [Not 44] 54
75 [Not 64] 74
85 84

12) R. Stour, SW of Hothfield, 1943. Beaver, Ashford, + flowers, 1950, E.S. New Lake E of Chilham, 084539, ES.

13) Brighton Lane, Tun[bridge] Wells, 1960, CAS. Ditch S. of Lamberhurst Church, 684565, 1939 JRW: 1960, CAS. 54 Pond SW Southborough Common, Crampton. Dunorlan, T[unbridge] W[ells], CAS. Bayham Lakes, CAS. 94, 04, 05, 15. 53, 63, 73

15) Shirley Moor, Dikes N. of B.2080, 1965.

01, 82, 92, 02, 83, 93, 03, 13

16) Brockhill Lake, Saltwood, LJM.

† Lagarosiphon Harv.

† **L. major** (Ridl.) Moss

5) Pond, Downe village, FHB.

11) In flower, gravel pits S. of Yalding Sta[iopn], 1961, CAS. Gravel pits, Aylesford, EGP.

⁹⁷ *Egeria densa* has a heading in the manuscript, but the only entry (for Hatch Park) has been deleted. There is no evidence that this is, or has been, a Kent plant.

12) Mersham-le-Hatch lake, 1959, DMcC **MNE**: 1960! **MNE**.

13) plenty in Brighton Lake, Eridge Rd., Tun[bridge] Wells, 11.1959: evidently just arrived, K.E.B.: 1960, CAS.

Vallisneria spiralis

"Kent", E.S. Marshall, J. Bot.

APONOGETONACEAE⁹⁸

Aponogeton L.f.

A. distachyos L.f.

1) Keston Upper Pond. Mrs M. Bostock, BEC Rep. 1924, p.200; 1952! 1954, PCH.

13) Pond nr Bayham Abbey, 648365, CAS. And in Teise.

JUNCAGINACEAE

Triglochin L.

T. palustris L. 15, 16 Marsh Arrow-grass

Native. Calcareous spring-fens and fen-meadows; brackish meadows and ditches; widespread but uncommon: 30 localities. Locally frequent in 4), occasional in 2), 12) and 16), rare elsewhere, in 1), 10), 11) and 15). Usually in short vegetation of *Parvocaricetum* type. Now very rare in Surrey, Sussex, and Essex; local and sub-maritime in Pas de Calais.

1) 47 Meadows S. of N. Cray, 1955 **MNE**. Bexley /47.

2) 47 Crossness, Erith Marshes, PCH. 96. 76 Marshes E of Halling, 1944. 76 Marshes S. of Snodland, 1895 H.L., 1943 abund[ant] **MNE**. 76 Holborough Marshes, 1947, abund[ant]. 06 Seasalter Marshes, 1958, H.M. Wilks **MNE**. 06 Calc[areous] spring, meadow below Mill Pond, Oare, 1959 **MNE**. 07 Warden, flush on cliffs.

Medway/76, Faversham /06, Teynham /96, Warden /07.

4) 25 Fens NW of Wingham, 1946 **MNE**, to '56; '63 DACL. 26 Preston Marshes 1946. 35 Hacklinge Marshes 1946 **MNE**. 35 Worth Minnis 1950. 26 Stodmarsh 1955 **MNE**. 36 W. of Brooksend, Birchington, 1947, L.W.W. 35 Ham Fen, S. part by dikes, 1946; 1991. 35 Slack, Deal Links, 1954 **MNE**. 35 Dikes NE of Sandwich, 1957. 35 F[resh] W[ater] Dikes W. of Prines Links, Sandwich Bay, 1962. 36 Minster Marshes, 1963.

Wingham /25, Sandwich /35, Chislet /26, Stour east /36.

10) 56 Meadow S. of Castle, Lullingstone, 1956 **MNE**. [Hawley, Darenth, A.C. Tagg.] Farningham /56

11) 85 Fen-meadow, the Brooks, Fairbourne Mill, Harrietsham, Mrs B. Dodds. 44 Hever, in calcareous flush in meadow SW of church, 1953 **MNE**. Harrietsham 85, Edenbr[idge] /44

12) Calcareous fen-meadows, Stowting, 1946-54; and nr Castle Mound, RAC. 05. 15. 04 Alluvial meadows W. of Blackwall Farm, Willesborough, 1955, FR & ES **MNE**. 94 by stream, Popes copse, Charing Heath 917486, ES.

/04, /14, /94 1956. Chilham /05, 1956.

C[anterbury] /15 1956. Warden /93 1956.

15) 01 In small fen SE of Hamilton Fm, Denge Beach, JHL, 1946.

01 Dungeness

16) 23 Calcareous flush, Darnley Vale, Cooling, 1947-1955 **MNE**. 13 Newington Moor, 1956, L.J.M. 13

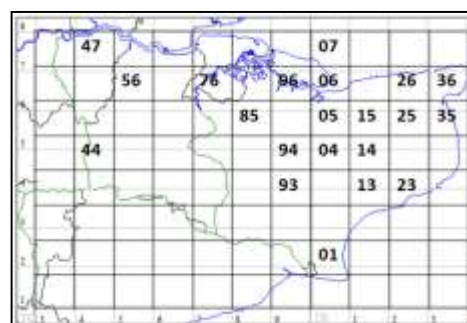
Calc[areous] fen-meadow, The Lince, SE of Etchinghill, 1958 **MNE**.

Hythe /13, F[olke]st[one].

T. maritima L. 15, 16 Sea Arrow-grass 18/51

Native. Tidal salt-marshes, mainly in the general salt-marsh association: more rarely by brackish dikes: vey common and locally abundant in 2) and 4) in these habitats, rare in b3) and 15), absent elsewhere.

2) 47 Salting, Crossness, Erith W. Marshes, PCH. 57 Salting, Crayford Ness, 1949. 57 Salting by Thames, Dartford Marshes, 545777 – 541779, 1962. 57 Salting, Stone Marshes 1945 **MNE** →62, HAS. 57 Swanscombe Marshes →62, HAS. 67 Northfleet →62, HAS. 67 Shorne. Grain. 77 higham. 77 Cliffe. 77 Upnor, 1944. 77 High Halstow (Egypt Bay). 77 St Mary Hoo. 87 All Hallows. Grain Marshes. Yantlet Creek. 76 Cuxton Salt Marsh, 1943 →53 **MNE**. 76 Halling Marshes. 76 Holborough Marshes. 76 S. of Snodland, 1944. 86 Funton Marshes, 1962. 96 Fowley Island, 1960, E.G.P. **MNE**. 96 Elmley. 06 Harty. Shellness. 07 N. of Leysdown, 1918



⁹⁸ In the manuscript, this follows *Triglochin*.

AG Davis **MNE**, 1956. 97 Minster S Marshes. Windmill Creek. 87 Greenborough Marsh, GHM & EGP. 86 W of Milfordhope, GHM & EGP. 96 Conyers Creek. 06 Faversham Creek. Oare Creek. Saline....Oare Meadow. Nagden Marshes. Castle Coot. Seasalter nr Red Sluice, HMW.

/47 Bexley, /57 Dartford, /67, /77, /87, /97, 07 Warden, Leysdown,
/76 Medway, /86, /96, 06 Faversham, /16 Swalecliffe.

3) 16 Swalecliffe, 1945.

4) 26 Marsh behind sea wall N. of St Nicholas, 270686, 1962. 36 Stour estuary, Sandwich 1954-7. 35 Sandwich, by Stour.

/26 Chislet, /35 Sandwich, /36 Stour Estuary

15) 02 Salting behind sea wall, SW of Dymchurch 1947. 13 NE of Dymchurch, 1947. 01 The Wicks, 1948. 01 South Brooks, 1948.

/02 Romney, /13 Hythe, /01 Dungeness, NOT /23 F[olke]stone.

POTAMOGETONACEAE⁹⁹

Potamogeton L.

P. natans L. [15, 16 38/51]¹⁰⁰

Native. Rivers, ponds, and ditches, in fresh weakly acid to alkaline waters: widespread and locally common, particularly in 2), 4), 11), 12) and 15); unrecorded for 3)¹⁰¹, 5), 7), 8), 9) and 16). Frequent in the adjacent counties and in N. France.

1) 46 Holwood Park Lakes. 46 Keston Common Ponds. 47 Chislehurst Common Pond, PCH. 46, 47

2) 57 Ditch, Dartford Marshes, 543772, 1962. 86. 77 Cooling Marshes, 1944. 07 Pond, Warden point. Luddenham Marshes, H.M.W. 57, 67, 77, 86, 96, 06, 07

3) Pond, Kites Fm, Swalecliffe, REW. Pond, Denstroude, HMW.

4) Sturry. Preston Marshes. *¹⁰²Stodmarsh, by Newbarns Farm, F.R., E.G.P., 1958 **MNE**. Ditches W. of Sandwich, 1944. Fen Ditches, Little Britton, W. of Wingham. Fen ditches, Hacklinge 1991. Fen ditches, Worth Minnis, 1960. S. of Grove Ferry. 16, 26, 25, 35

6) 67 Chalkpit S. of Northfleet, 1945, J.E.L.

7) Chalk pit, Rainham, OD.

10) 45 Westerham. 55 pond, Knole Park, PCH. 55 Dunton Green, AG Davis, 1919 **MNE** *.

11) 65 Clare Park Lake, E. Malling. 66 pond W of Ryarsh Wood. Chilston {ark Pond. 54 Leigh. 64 Ditch at Beltring. 84 R. Beult, N of Buckmans Green, 889419, 1962. 84 R. Sherway, Sherway Br[idge], Smarden, 867447, 1962 **MNE** *. 84 Pond SE of Golden Square, Smarden, 887411, 1962. 74 R. Beault, Cross at Hand, Staplehurst, 1963. 45, 55, 65, 66, 75, 85, 54, 64, 74, 84

12) 94 R. Stour, SW of Hothfield, 1943: E.G.P. **MNE** *. R. Stour, Godmersham Br[idge], E of Ch[urch], 1955, FR & E.S. 04 Dikes E of Rly, S. of Willesborough, 1950. 94, 04, 05, 15

13) 63 Ditch S. of Lamberhurst Ch[urch], 684365, 1960, CAS. 63 Bayham, Pond E. of Lamberhurst Gate, 1944; Abbey Lakes CAS. 73 Bedgebury Pinetum, Marshall Lake, 1945 **MNE** *. 54 Penshurst Park, Pond 1 mile N. of Village, by B.2176, 1944 **MNE** *. 53 Pond by Broadwater Lane, T[unbridge] Wells, 1960, CAS. Dunorlan, T[unbridge] W[ells], CAS. 53, 63, 73, 83

14) 83 Breeches Pond, 1947.

15) 01 Hoppen Pits, Dungeness, 1946 **MNE** *. 02 New Romney. Brenzett RGW. 93 Dikes, Shirley Moor, 1947 **MNE** *, 1965. Kenardington. 01, 82, 92, 02, 93, 03, 13

P. polygonifolius Pourr. 15, 16 9/51

Native. In acid, often peaty and ferruginous water, in pools and rivulets in bogs, and in ponds on acid soils; locally plentiful in 12) and 13); rare in 1) and 10); unrecorded elsewhere. Locally common in the heath districts of Surrey and Sussex, very rare in Essex and in Pas de Calais.

1) 46 Keston Bog, 1944-62. 46

10) 55 In Pond, Ightham Common, 1944-62, **MNE** *. 55

11) [nr. Hadlow, 1878, FWE Shrivell TLS]

12) 94 Valley bogs, Hothfield Common 1942-62 **MNE** *. 04 Ashord Warren. 04 Willesborough Lees 1945-54 **MNE** *. 13 Gibbons Brook, 1945. 13, 94, 04

⁹⁹ Follows *Zostera* in manuscript.

¹⁰⁰ These details supplied; not in original.

¹⁰¹ However, records are given for district 3).

¹⁰² This symbol marks several entries, but the intention is not clear.

13) 53 Hawkenbury Bog, JRW 1945-. 73 Boggy streamlet, Pinetum, Bedgebury, 1962. 73 Louisa Lake, Bedgebury Forest, JRW: 1944-51 **MNE***. 73 Peaty stream, Angley Wood, 1945-61 **MNE***. Boggy Valley, Brewers Wood, 1950. 64 Pool in Pembury Wood, 1952. 83 Chittenden Wood, 1944, in peaty ditch. 73 Combwell Wood, in acid flushes, 1945-54 **MNE***.
53, 73, 83, 64

P. coloratus Hornem.

15

3/51

Native. Dikes in calcareous fens: very rare, and confined to 4), but locally abundant there. Very rare in Sussex (near Eastbourne); unrecorded for Surrey and Essex; locally abundant in Pas de Calais.

1st record, 1838: Ham Ponds, W.W. Saunders: Babington, *Ann. Nat. Hist.*, 2, p349.

4) 25 Fen dikes N. of Wingham, 1945→ **MNE***. 35 Hacklinge, fen ditches, 1946→ **MNE***. 35 Dike, Ham Fen, 1838, 1949-60 **MNE*** not seen 1991: 1994! 35 Worth Minnis, 1946-60. 26 Preston Marshes, Dowker, det. E.S.M.
26, 25, 35

(The record for **12)** Hothfield in Fl.K. is surely an error.]

P. lucens L.

15, 16

11/51

Native. Dikes, canals, lakes, and rivers, in still or slow moving neutral or calcareous water: frequent in the alluvial marsh dikes of 4) and 15), and in the Stour in 12): formerly in 1), 2), 11) and 14), but apparently now extinct there.

[1] Ravensbourne, Lewisham, Milne & Gordon.]

[2] Greenwich Marshes; Deptford Creek, Mile & Gordon.]

4) 26 North Stream, E of Reculver, by A.299, 1946-. 26 Chislet Marshes. DHK. 26 Ditches S. of Grove Ferry, 1947. 35 Alluvial Marsh, Ditches W of Sandwich, 1946 **MNE**. 35 Dikes, Worth Minnis, 1956 **MNE**. 35 E. of Hacklinge, 1956. 26 Stodmarsh, E.G.P., P.W.W. 1958 **MNE**. 26 Sarre, Miss M.E. Milward, 1962 **MNE**. 25.
25, 35, 26

11) [Old records only for Tonbridge and Maidstone.] SW of Bethersden, 1955, ES.

12) Stour by Wye Station, 1939, J.P.M.B. Hb. J.P.M.B.). Vaixhall Lakes, Canterbury, 1954, ES. 94, 04, 05

15) 93 Ditch, Shirley Moor, 1945-52, by B.2080 **MNE**. 01 Hoppen pits, Dungeness, 1946 **MNE**. 02 82 Dikes, W. of Wittersham, 1956 **MNE**. 93 R[oyal] M[ilitary] C[anal] W. of Kenardington Bridge, 1959 **MNE**. 92 Dikes NW of Appledore Sta[tion], nr. B.2080, 1959 **MNE**.
01, 02, 82, 92, 93

P. lucens x perfoliatus (= *P. x salicifolius* Wölg.) (*P. decipiens* Nolte ex Koch)

4) R. Wantsum, nr. Chambers Wall, St. Nicholas at Wade, 1939, C. Norman **B**, det. D[andy] & T[aylor]. Dandy & Taylor, *J. Bot.*, 1939, p.255; BEC Rep., 1939-40, p.298.

P. alpinus Balb.

15

3/51

Native. Slow flowing rivers, ditches and ponds; extremely rare and only recently observed in 11) in the Beult and its tributary the Sherway.

4) Ditches, Sholden, FGEK.]

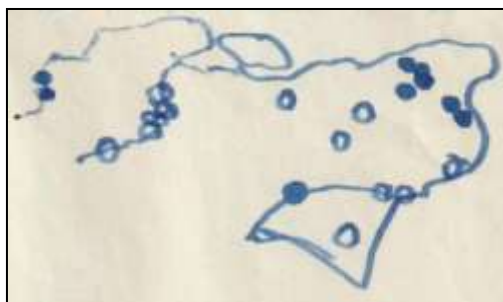
11) R. Beult, ½ m. W. of Bethersden, 917401, E. Scott: 1956! 1962! **MNE**. R. Beult, 918397, S.E. of Buckhall, Bethersden, 1962 **MNE**. R. Sherway, above and below Sherway Bridge, 867447, NE of Headcorn, 1962 **MNE**. [Tonbridge, A.G. More, Fl. K.: Hb. J.S. Mill.] [Pond between Marden and Marden Mill, FJH: between Staplehurst and Headcorn, F.J.H. I cannot refind it in these places.]

P. perfoliatus L.

15, 16

formerly 13/51: now 4/51

Native. Rivers and canals: very rare, and much decreased since Fl.K. 24 localities given there: only 9 modern ones.



[36], [06], [34], [54], [65], [15], [04], [13]

[1] Ravensbourne, Lewisham, M. & G. 1793.

[2] Marshes ditches nr the Thames, E. de C.]

4) 26 North Stream, E. of Reculver, by A.299, 1946 **MNE**. Stodmarsh, RGW. 26 Ditch S. of Grove Ferry, 1947 (Fl.K.). 35 Ditch, S. end of Worth Minnis, 1956 **MNE**. 35 Ditch E. of Sandwich (1m.) 1963, E.G.P. 26 Wantsum, nr Chambers Well, 1962, H.M. Wilks. [W, of Sandwich FGEK.] [Brooksend FGEK.] [Sarre Fl. Th.] [Minster Fl. Th.] [Ham Ponds FJH.] [Fordwich FJH.]
/26 Chislet, /35 Sandwich

[6] [06 Ospringe river, Pl. Fav., 1777.]

[8] 34 In the Dour FGEK.]

10) 56 In Darent, Horton Kirby, J.B. Marshall, 1938: 1962, l[ocally] d[ominant], H.A.S.: LMB, 560686. 56 In Darent, Eynsford, 1963, H.A.S.
/56 – 1956-62 Farningham

11) [75 In R. Medway, Teston, 1944 **MNE**.] [15 In Medway, Maidstone, 1895, H. Lamb **MNE**.] [Tonbridge, Fl. Ton.] 75 E. Farleigh: 65 Yalding FJH.]
[75]

[12] In Stour, 15 Canterbury/ E. of Chartham, F.M.W.; 04 Wye, FJH.]

15) 93 R[oyal] M[ilitary] Canal, W. of bridge, Kenardington, 1959, **MNE**. [13 Hythe, Duthie. Seabrook, in R[oyal] M[ilitary] C[anal], FGEK.] [Lydd, Lady D., c.1902.]
/93
26, 35, 56, 93

P. friesii Rupr.

15

2/51

Native. Calcareous fen-dikes; very rare but locally abundant.

1) Cray tributary nr. Bexley M&G: 1963, G.M.B.

4) 26 Between Preston and Grove Ferry, 1949 **MNE**. 26 Preston Marshes, 1962 **MNE**. 26 Stodmarsh, E.G. Philp, 1958 **MNE**. 35 Fen dikes, Hacklinge, 1946 **MNE**.

P. pusillus L.

15, 16

10/51

Native. Still or slow moving fresh water in streams, ditches, etc.: rare, and recorded only from the marsh districts 2), 4) and 15), and from the Medway valley 11) and Stour valley 12).¹⁰³

2) 67 Bomb-crater, Shornmead Fort, 1962 C.A.S. **MNE** (det. J.E.D., 1963). Higham Marshes, 1955, det. Dr. E. Taylor. Pit N. of Shorne, 693734, PCH.

4) 26 Dike, Stodmarsh, 1955 **MNE**, det. JED. J. Bot. 1940, BEC Rep. 1939-40, p.299. (Fordwich Marshes, 1949, E. Robinson, not confirmed.) 35 Ditch W of Sandwich, 1946 **MNE**.
67, 26, 35

11) 75 Gravel pits E of Aylesford, E.G.P. 1962 **MNE** (det. JED 1963). 74 Stream N of Collier Street, Yalding, 1958 **MNE**. 64 Gravel pit W. of Brandbridges, 1958 **MNE**.
75, 74, 64

12) 04 R. Stour 1m. S. of Godmersham, 1956 **MNE** FR & R. Melville. 05 R. Stour S. of Shalmsford Bridge, Chartham, 1960 **MNE** (JED det. 1963).

13) Dikes by Selby Farm, S. of Lympne, 3 M. W. of Hythe, 1958 **MNE**. 93 R[oyal] M[ilitary] Cahal W. of Kenardington Br[idge] 1959 **MNE**. Ditch near coast, South Brooks, Denge Beach, 1935, Hb. JPMB.

P.pusillus x P. trichoides = [**P. x grovesii**]¹⁰⁴

11) Marden (as *P. berchtoldii*) E.S.M., BEC Rep., 1920, p.50.

P. obtusifolius Mert. & Koch

15, 16

4/51

Native. Ponds and ditches: now very rare, in a few ponds in the Weald.

[R, Cray, Milne & Gordon. Deptford, Buddle, MS6, p.13. Greenhithe, Fl. Met.]

2) Luddenham Marshes, 1961, H.M. Wilks, det. DMCC.

4) [Ham, H.C. Watson. Stourmouth, Dowker.]

11) [nr. Medway above Tonbridge, Hb. J.S. Mill.] Pond at Leighbridge, W.N.W. of Headcorn, 1935 J.P.M.B. Hb.; 1949, FR & CW, **MNE**. Two ponds 1m. N. of Marden, Fl. Tun. Wells: 1952! FR & RAB **MNE**.

12) [Stour nr Wye, F.J.H.]

13) Pond N. of Scarletts, Cowden, 1949, ECW.

The wide blunt leaves, close branching habit, and very fine lateral nerves distinguish this species when sterile.

P. berchtoldii Fieb.

15, 16

13/51

Native. Freshwater dikes, streams and lakes, in base-rich water: rare in 2) and 13); widespread and locally frequent in 4), 11) and 12).

First record, 1881: see Dandy & Taylor's paper in *J. Bot.*, **72** (1940) p.56.

¹⁰³ This account has been amended more than usual, with a number of records from district 4 queried and then deleted (so not included here).

¹⁰⁴ Name supplied here, not in manuscript. In the BEC Report cited, it was *P. x franconicus*, a re-determination by C.G. Druce.

1) Danson Park, GMB. Ruxley pits, S&S.

2) 57 Dartford Marshes, 541761, 1962 **MNE** (det. JED 1963).

57

4) 26 Preston Marshes, 1949 **MNE**; 1962 **MNE**. 25 Lit[tle] Stour, Wickhambreaux, 1956, **MNE**. 25 fen Dikes, Little Britton, N of Wingham, 1947 **MNE**; 1960 **MNE**; 1962 DACL. 35 Dikes, Worth Minnis, 1950: 1960 **MNE**. 26 Chislet Marshes (Marshside) 1962 **MNE**. 35 Dikes E of Hacklinge, 1956 **MNE**. 25, 26, 35

10) R. Darent, Squerries Park, Westerham, R.A.C. R. Darent, Dunton Green (W. of), Hb. J.P.M.B. 1946.

11) 85 Pond by R. Len, Pollhill Ho., Harrietsham, 1962, Mrs. B. Dodds (sp[ecimen]!). 75 Langley Park Lake, EGP, 1960 **MNE**. 84 R. Sherway, Sterway Bridge, Smarden, 867447, 1962 **MNE**. 64 Gravel pit by Medway, SW of Brandbridges, CAS: 1958! 673482: & to E., 682487 **MNE**. 64 Gravel pits S. of Yalding Station, 1961, CAS. 74 Ditch by Teise, Elphicks, Hunton, 1955 **MNE**. 74 Stream N. of Collier Street, 1958 **MNE**. 54 Castle Moat, Tonbridge, EGP, **MNE**. R. Beult N of Cross at Hand, '63. 75 Ditch by Medway, Teston, 1955 **MNE**. 64 Stream, Pikefish, S. of Yalding, 1956 **MNE**. 54, 63, 63, 74, 75, 84, 85

12) 05 R. Stour near Church, Godmersham, FR & ES, 1955 **MNE**. 94 R. Stour, Hothfield, 1959, G. Morgan **MNE**.

13) 63 Ditch S. of Church, Lamberhurst, 1956 **MNE**.

05, 94

In this species there is a strong lateral nerve on each side of midrib at some distance from it.

P. trichoides Cham. & Schlecht.

15

4/51

Native. Freshwater ditches and lakes: very rare and confined to 4) and 15).

4) 26 Ditch E. of B.2046, S. of Pluck's Gutter, DACL & Mrs. A.G. Side, 1962 **MNE**; det. JED, 1963.

15) 01 In long shingle pit, Dungeness, E. of old school, **B[M]**: 1946-62! **MNE**. 02 or 03 Ditch between Han Street and New Romney, 1952, I.A. Williams **B[M]**. 92 Drain by R[oyal] M[ilitary] Canal nr. Knock Farm, 1959, **B[M]**.

P. acutifolius Link

15, [16]

[4/51]: 2/51

Native. Alluvial dikes in calcareous water; very rare, and only seen recently in 4) and 15).

[1] 37 Marsh ditches, Deptford, Hb. Buddle.]

4) [25 Wickhambreaux, W. of Little Stour, Dowker, Fl.K.] 26 Fen Dike, Preston Marshes, 1962, Mrs A.G. Side, 1962! abundant **MNE**, det. J. Dandy. Dike, E. side road, 240624, Grove Ferry, 1950, L.W.W.; needs confirmation but probably correct.

15) 92 Roadside dike between Appledore Station and Village, ESM: J.P.M.B, Hb. J.P.M.B., 1935: C. Norman, 1938 **BM**.

P. crispus L.

15, 16

38/52

Native. Freshwater streams, ditches and ponds: widespread and locally frequent in 2), 4), 10), 11), 12), and 15); unrecorded for 3), 5)-9). Frequent in the adjacent counties and in N. France.

1st record, 1632: W. of Sandwich, Johnson, *Descriptio*, p.30.

1) 47 Cray, nr A.2, Old Bexley, GMB. 46 Keston Ponds, 1949, DPY, Hb. DPY.

46

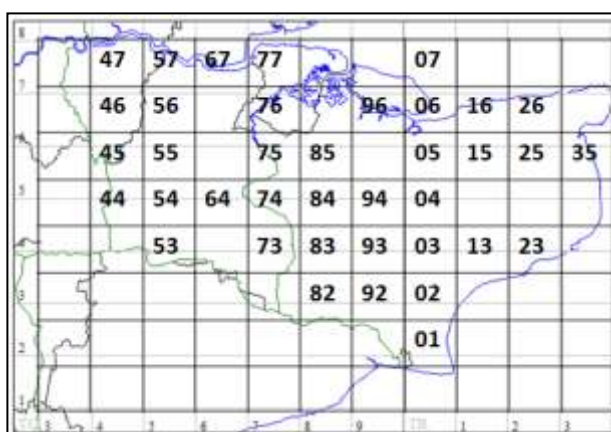
2) 47 Erith Marshes, Kent. 57 Pond, Stone Marshes, H.A.S., 1962. 67 Stream Northfleet, 615749, PCH. 76 Holborough Marshes. 76 Dike on Marshes S. of Snodland, 1944. 76 Burham, in dike, 1945 **MNE**. 06 Dike N of Hernhill, nr waystreet Farm, 1955 **MNE**. 77. 66 Leybourne Brook, N. of Lunsford, 1944 **MNE**. 67 Dikes, Stone Marshes, HAS. 96 Tonge in ditch, DMCC. 06 W. of Seasalter, 1947, B Welch. 07 Warden. 76, 96, 06, 47, 57, 67, 77, 07

4) 35 Dike at Hacklinge, 1946. 26 Dike, Stodmarsh, 1955 **MNE**. 16 Fordwich Marshes, 1949, E. Robinson. 25 Dikes, Little Britton, Wingham, 1963, DACL. 26 Preston Marshes, '62, Mrs. B. Dodds; KFC. 26 Stuart, St Nicholas at Wade, 1939, JPMB Hb.

16, 26, 25, 35

10) 45 Stream, Westerham, 441537, 1955, DPY. 55 R. Darent, Chipstead, 1943, J.R.W. **MNE**. Pond Westerham Wood, 1982! 56 Darent. 45, 55, 56

11) 54 Tonbridge Marshes. The Moat, Ightham Mote, 1955, Mrs. M. Mellinson. 75 R. Medway, Maidstone, 1957, E.G.P., **MNE**. 85 Fairlawne Mill pond, Mrs. B. Dodds. 84 Pond W. of Leighbridge, Headcorn, 813454, 1962. 84 R. Sherway, Sherway Bridge, Smarden, 861447, 1962 **MNE**. 74. 44. 75, 85, 44, 54, 64, 74, 84



- 12)** 94 Stour SW of Hothfield, 1943. 05 R. Stour, Godersham, 1955, **MNE**. 05 R. Stour, Godmersham, 1955 **MNE**. 05 R. Stour, Shalmsford Bridge, Chartham, 1960 **MNE**. 04 R. Stour, Olantigh Park, 1m S. of Godmersham, FR & R. Melville, **MNE**. 94, 04, 05, 15
- 13)** 74 Pond, Horsmonden, 1899, J. Stirling Hb. **TLS**. 73 Bedgebury pinetum Lake GMB. 53 Dunordan, T[unbridge] W[ells], CAS. 53, '55; 73, '53; 83
- 14) Breeches Pond, RAC. 83 Pond E of St Michaels RAC.
- 15)** 02 Near Romney. 02 Brenzett. 13 Dike, Palmarsh / R[oyal] M[ilitary] C[anal], Hythe, 1958, L.J.M. 01 Dungeness. 02 Lydd, Lady D., c.1902. 01, 82, 92, 02, 93, 03, 13, 23
- 16)** 23 Gault pond, Folkestone Warren, 1965, BN.

P. crispus x friesii = P. x lintonii Fryer

- 10)** Stream in village, Riverhead **BM**. R. Darent, by rly. between Dunton Green and Riverhead, 1946, JPMB, in Hb. JPMB **BM**.

P. pectinatus L.

15, 16

24/51

Native. Streams, ponds, canals and ditches, in fresh and brackish waters: very common in the districts 2), 4) and 15), less so in the Stour in 12), rare in 1), 3), and 11).

- 1)** 46 Keston Ponds, C. West.
- 2)** 47 Plumstead Marshes, 1944. 57 Dartford Marshes, 543772, 1962. 77 Bucks hole, Cooling Marshes, 1944. 57 Stone Marshes, pond →'62 HAS. 67 Bomb craters, Shornmead Fort, 1962, CA Lister. 77 Fleet S. of Egypt Bay, High Halstow, 1962, CA Lister **MNE**. Ebbsfleet, Northfleet, stream, 615746, PCH. 67 Swanscombe Marshes. Shorne Marshes. 77 Higham Marshes. 87 Grain. St Mary's Marshes, HAS. 96 Elmley. 97 Minster S. Marshes. 06 Harty. 06 Dike, 046648, W of Sportsman, Seasalter, HMW. 86 Dikes, S. Chetney Marshes, 1962. 76 Burham, dikes W. of Church. 76 Cuxton. 46, 47, 57, 67, 76, 77, 86, 87, 96, 097, 06
- 3)** 16 Swalecliffe, 1944.
- 4)** 26 Marshside, Chislet, 225661, 1962. 26 Dikes N. of Shuart, 270686. 26 Dikes W. of Grove Ferry. 36 Minster Marshes, '63. 35 Dike 1m. N. of Sandwich 1946 **MNE**. NE of Sandwich, PWW, JPMP. Stodmarsh, 1958, E.G.P. **MNE**. 36 Dike NW of Princes Links, Sandwich Bay, 1962 **MNE**. Pegwell Bay, RGW. Fordwich Marshes, 1949, E. Robinson. Plucks Gutter, DACL. NW Hacklinge 1991. 16, 26, 35, 36, 04, 05, 75
- 6)** Chalkpit, Northfleet, HAS.
- 11)** 75 Maidstone, in R, Len, E.G. Philp, 1958 **MNE**.
- 12) 04 R. Stour, Wye, 1952 **MNE**. 04 N. of Olantigh Park, 1956 **MNE**. 05 Shalmsford Bridge, 1960 **MNE**. Pits ENE of Chilham St[at]io[n], 086539, ES.
- 15)** 92 Appledore, 1949 **MNE**. 01 Dungeness, Ditches S. of Boulderwall, 1962. 01 Long pit, Dungeness, 1962, **MNE**. 02 Ponds NE of New Romney, 1955 **MNE**. 03 Dikes S. of Ham Street. Behind shore S. of Dymchurch, 1935 Hb. JPMB. 13 R[oyal] M[ilitary] Canal, Hythe, 1955 **MNE**. 03 Ditch S. of Aldington Knowle, 1958 **MNE**. 93 R[oyal] M[ilitary] Canal, W. of Kenardington Bridge, 1959, **MNE**. Lydd to Hope & Anchor Road, 1936, JPMB Hb. 01, 92, 02, 93, 03, 13

Groenlandia Gay

G. densa (L.) Fourr. (*Potamogeton densus* L.)

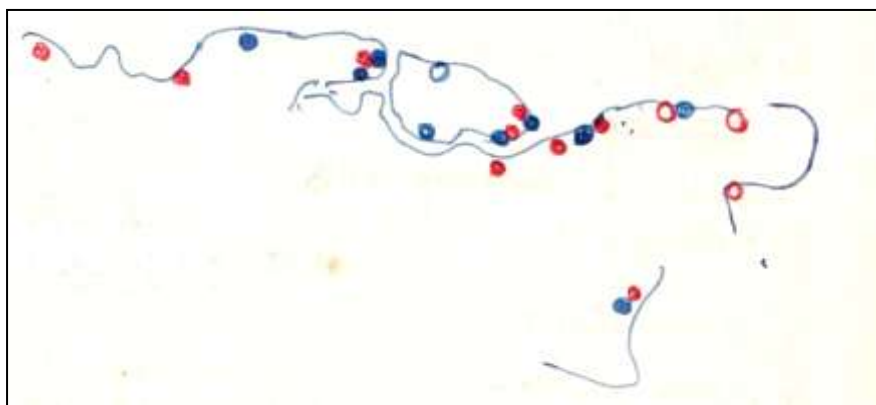
15, 16

16/51

Native. Freshwater dikes, streams and ponds; rare and unrecorded from most of S. Kent but locally frequent in the dikes of 2), 4), in the Darent in 10) and in the Stour in 12); rare in 8), 11), 13) and 15).

- 1)** Cray, Old Bexley, GMB (nr A2).
- 2)** Plumstead Marshes, W. Beddiscombe, 1892 **MNE**. Stream nr Stone Crossing Halt, GMB. Erith Marshes, PCH. Cliffe. Dartford Marshes, 543772, 1962 **MNE**. 76 Holborough Marshes. 76 Snodland Marshes, 1944. Luddenham Marshes, HMW. 76, 96, 06, 47, 57
- 4)** 35 Hacklinge, 1946. 26 Dike N. of Preston, 1949 **MNE**. Preston Marshes, 1962, B. Dodds; KFC. Fordwich Marshes, 1949, E. Robinson. 25 N. of Wingham, Lit[t]le Britton Fm. S. of Grove Ferry, L.W.W. 35 Worth Minnis, 1956 **MNE**; 1960 EGP **MNE**. 35 Ham Fen. 25, 26, 35
- 8)** 24 R. Dour, Kearsney, KDR. 24
- 10)** ~~Chipstead~~
- 11)** ~~Tonbridge~~. 65 Clare Park, E. Malling. 65
- 12) R. Stour, Chilham, 1945, DHK. 04, 95, 05, 15
- 13)** Tunbridge Wells, W.W.R. **TLS**.
- 15)** Lydd, Lady D. c.1902. No recent records.

RUPPIACEAE

Ruppia L.**R. spiralis** L. ex Dumort.

Wilks & FR, **MNE**. W. of "Sportsman", HMW.

3) E. of Whitstable (=Swalecliffe) FJH, Fl. K.

4) /35 – to 1954 – Richborough?

15) Dymchurch, FJH, Fl. K.; 1947 (sterile plants of a *Ruppia* seen).

3/51

*Sheerness, Hb. Dillenius, teste G.C. Druce.

2) Grain, B.D. Jackson; Port Victoria, AHWD & ESM, Fl. K. Saline pool behind N. beach, I. of Grain, 1959

MNE. Cliffe, L.N.H.S. Harty, B.D. Jackson, Fl. K.; 1938, DMCC. Elmley, 1949? Shellness, Sheppey, 1956

MNE [Coastal pools E. of Sheerness, FJH, Fl. K] Saline pool behind beach, W. of Seasalter, 1959, H.M.

/87 Grain, /06 Harty/Seasalter/Sheerness

/35, Sandwich to 54.

R. maritima L.

4/51

Native. Brackish ditches and fleets: rare, but locally frequent in the Thames estuary. In Sussex, Essex and Pas de Calais.

*1724: Sheppey, Dillenius in Ray, Syn., ed.3, p.135.

2) Woolwich Marshes, E. de C. NE of Cuxton, WWR; FJH. Frindsbury, F.M. Webb. Stone Marshes, 1945, F.R & J.E.L. **MNE**. Higham, 1944, FR & CW. Grain, 1959? Dikes, Harty, W.J.L. Sladen. Shellness, Sheppey, 1956 **MNE** Dikes below Faversham, FJH, Fl. K.: DHK, 1945. ½ mS W of Sportsman, W. of Seasalter, HM. Wilks **MNE**.

3) Whitstable Boating Lake, 1959, HM. Wilks **MNE**. Brook, Swalecliffe, FJH, Fl. K.; REW 1950.

51/57 Stone, 51/76 Medway to '54, 51/85 Grain?, /06 Shellness/Seasalter, 16 Whitstable 54:59.

4) Reculver, in saline ponds, J.S.M. (Hb. JSM). [Margate, FGEK.] N. of Sandwich, FMW, Fl. K.

15) Dikes and pools nr sea, Dymchurch, CPSK; FJH, Fl. K. (1947, sterile plants seen of a *Ruppia*)

ZANNICHELLLIACEAE

Zannichellia L.**Z. palustris** L.

15, 16

Horned pondweed

32/51

Native. Ditches, streams, and ponds, in still and running fresh or brackish water, not in acid water: frequent to locally common in 2), 4), and 15), in the Darent and Stour in 10) and 12) and in the northern part of 11); rare elsewhere, and absent from 5)–9) and 13) and 14). Rare in Surrey, local in Sussex, Essex, and Pas de Calais, but commoner in the coastal marshes.

2) 67 [locally] d[ominant] in chalkpit lake, Northfleet, 1962, HAS. 77 Fleet S of Egypt Bay, High Halstow, 1962, CAS. 47 nr Crossness, Plumstead, 1944. 57 Pond, Swanscombe marshes, 1962, HAS. Ebbsfleet HAS. 67 Shorne. Denton. 77 Cooling. 66 Birling Marshes PCH. 86 Stream S. of L[pwe]r Halstow, 1962, 857669. 76 Snodland (Holborough) →1978. 76 Halling, 1943. 77 Higham. 77 Cliffe. 87 Grain. Pond behind All Hallows Saltings, AGS, '58. 06 Harty. 96 Elmley. Luddenham Marshes KDR. 06 Brackish dike by seawall, S. side Harty Ferry, 1961, HMW. Faversham Creek, '57, ES. 06 Seasalter. Nr P.H. Ham Marshes, 1954, RWB. Oare Meadow, 62, HMW.

76, 86, 96, 06, 47, 57, 67, 77, 87

3) 16 Swalecliffe, 1944.

16

4) 35 NE of Sandwich. 26 Grove Marshes, P.W.W. 25 Lit[tle] Britton, Wingham, DACL, '63. 26 Pluck's Gutter, '62, DACL. 15 Fordwich Marshes, 1949, E. Robinson 26 Brook's End, Birchington, 1957, BN. Hacklinge (SE of Ham Fen) 1991.

25, 35, 26

6) Flooded chalkpit, Northfleet, HAS.

10) 55 Chipstead, 1945. 57 Darent, 1954. 45 Brasted, 1945. 56 Darent at Lullingstone, 1956 **MNE**. 45, 55, 56

11) 66 Pond in Ryarsh Wood. 66 Leybourne Brook, S. of Ham Hill. 84 R. Sherway, Sherway Bridge, Smarden, 867447, 1962. 65. 75 Forstal Pond, Aylesford, EGP, 1962. 85 R. Len, Fulling mill, W. of Hollingbourne, 1958. Fairbourne Mill Pond, Mrs. B. Dodds. 75 Boxley, E.G.P., 1958, **MNE**. 75 R. Medway, Maidstone, 1957, EGP **MNE**. 66, 64, 84, 65, 75, 85

12) 94 R. Stour SW of Hothfield, 1943 FR: 1959, EGP **MNE**. 03 Ditch E. of Mersham Mill, 1956 **MNE**. 14 Stream S of Stowting 1953, **MNE**. nr Stour in gravel pits E of Chilham Sta[tion], 084539, 1957, ES. 05, 15, 94, 04, 14 03

15) Hythe, J.E.L. 02 Lydd. 92 Appledore. 13 Dike nr Selby Fm S. of Lympe, 1958 **MNE**. 92 Dike, Fairfield, 1952, **MNE**.

16) 23

02, 92, 13, 23

ZOSTERACEAE¹⁰⁵

Zostera L.

Z. marina L. 15

Native. In estuaries on mud near low-water mark: very rare, and not confirmed by specimens.

Zosteretum submerged:emerged ratio 0.628 – 282/732 hrs per month.

2) Mudflats near LWMOT [Low Water Mark of Ordinary Tides], NW of Seasalter; reported , local fishermen, to REW and Pfof. GE Kewell, 1950. From the description and the habitat this was probably *Z. marina* L. Older records for this species cannot be accepted in the absence of specimens (see Fl. K.).

Z. angustifolia (Hornem.) Reichb. 15, 16 2/51

Native. Mud flats below the general salt-marsh level, but far above low-water mark of ordinary tides (often over low water reefs!); very rare, but locally abundant in at least three places. Rare in Essex, very rare in W. Sussex. Not reported from Pas de Calais; nor are the other two species.

2) Mudflats off North Beach, Grain, 1959, Mrs A.G. Side. NW of Seasalter, 065656, on sandy mud nr low water neap, 1957, HMW. Mudflats N. of Castle Coot, Graveney, 1960, H.M. Wilks **MNE**. Mudflats N of “The Sportsman”, W of Seasalter, 1950 REW, H.M. Wilks 1960: 1960! **MNE**, det. T.G.T. “Ditches between Garrison Point to E. Cliff”, Cooper in *Mag. Nat. Hist.*, and “Harty Ferry”, *Pl. Fav.*, probably refer to this species.

4) “Salt-water ponds at Reculver”, Hb. J.S. Mill, probably refer to this species: I have not seen the specimen. “A Mallard shot off Milford hope Island in Sept. 1958 had 170 seeds of this species in its food tract, in perfect preservation: it had probably fed just prior to being shot”: P. Olney *in litt.*, 1962.

Z. noltii Hornem. 15 1/51

Native. Mud-flats, with Z. angustifolia: very rare but plentiful in at least two places.

2) Mud-flats close to beach, W. of Sportsman, Seasalter, 1960, H.M. Wilks., 1960! **MNE** “may well be this, but sterile”, T.G.T. Mud-flats close to beach, castle coot, Graveney, 1960, H.M. Wilks.

ARACEAE¹⁰⁶

Acorus L.

A. calamus L. 15, †16 Sweet Sedge 1/51 (3/51)

Alien, probably introduced into Britain, but appearing quite native in dikes about Plucks Gutter.

1) Pond SE of Bickley, W.C.R.W.: 1946! probably planted here **MNE**. Holwood Park Lake, 1954 **MNE** planted. Beckenham Place Park PCH.

4) Abundant along dykes S. of Plucks Gutter, Stourmouth, 1949, R.A.B. & F.R.; 1955! **MNE**, appearing native here.

11) Mote Park, Maidstone, 1950; E.G. Philp, 1958; apparently planted.

13) Spa Golf Course, T[unbridge] Wells, KEB.

Calla L.

¹⁰⁵ Follows *Aponogeton* in manuscript.

¹⁰⁶ Follows *Orchidaceae* in manuscript.

C. palustris L.

Alien. Naturalised in a swamp at:

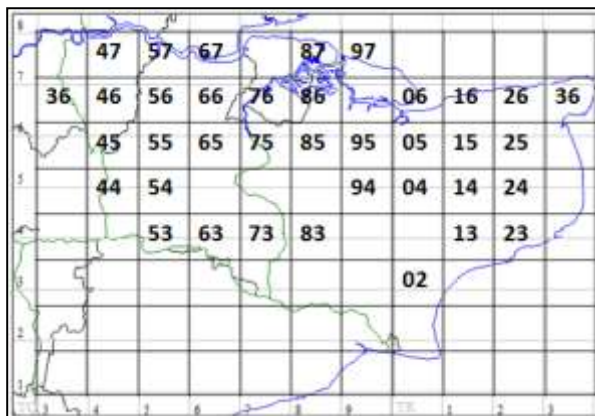
13) Kenward Green, 633409, Pembury, 1956: flowering 1962, CAS, det. **BM**.

Arum L.

A. maculatum L. 15, 16 /51

Native. Woodland on all except highly acid soils, hedgebanks; abundant throughout Kent except in the marsh districts 2), 4) and 15) where it is, locally, very rare or absent; it is also rare in the acid sandy plateau woods of 13), but even here occurs on hedgebanks where the soil is somewhat base-enriched. Common throughout the adjoining counties and N. France.

Wild arum, Lords and Ladies, Cuckoo-pint 2n=56



1) Shooters Hill Woods, GMB. Abbey Wood PCH. Ruxley pits, S&S. Beckenham Place Park 1955. Ravensbourne, 1916, AGD **MNE**. High Wood, Crofton PCH. Petts Wood. Bourne Wood, E. of St Mary Cray. Kevington. Joydens Wood PCH. Bexley Ch[urch] Y[ar]d PCH. Farningham Wood.

2) R[oa]dside Key St[reet] 1955. Brambledown old r[ai]l[wa]y 55. Brambledown oakwood 56. Rd W. of Eastchurch 55. Leysdown village 55. Ash copse Warden 55. Eastchurch cliffs 55.

3) 06 Hernhill village 55. 16 Canterbury golf course 55. 16 Old Park, Canterbury 55. 26 Shelving Wood (Wool[wich] Beds) '62.

4) Wenderton Wood, Wingham, BN.

5) Darwins Bank, Downe. Halstead PCH. Rushmore Hill PCH. Hedge 396611 PCH. Pilots Wood PCH.

6) Darenth Wood PCH. The Thrift, Bean, PCH. Hedge SE of Farningham 1950 **MNE**. Horton Wood PCH. 67 Claylane Wood, Cobham, HAS. Dunstall Woods PCH. Preston Hill PCH. Greenhill Wood! PCH; 62 FR. Magpie Bottom PCH. Kemsing Downs PCH. Ch[a]lk, Woodlands Hill, N of Ightham '55. Wrotham Hill NW of village 55. Wingate Wood, Halling, PCH.

7) R[oa]dside Hartlip Hill / Hartlip Village, 55. Wood above Q[ueen] D[own] W[arren] / Lane SW of Q[ueen] D[own] W[arren], 55. Copse on coombe dep[osits] below Purple Hill 55. Bredhurst Hurst 55. Stockings Wood, Detling 55. Top of Detling Hill 55. W. Coombe Detling '55. Boxley Hill. Spuckles Wood Stalisfield (loam-chalk) '62. Kenneling Wood Stalisfield (ch[a]lk) 62. Filmer Wood (sandy loam valley bottom) 62. Tassels Wood Norton (ch[a]lk) 62. College Wood Norton (ch[a]lk) 62. Park Cotton Wood Newnham (loam) '62. Wood E side Lees Park (ch[a]lk and loam) '62.

8) Foot of Broad Downs, Brook. Foot of Downs, Stowting. Foot of Downs, above Monks Horton. Tolsford Hill Postling **MNE** 1945. N of Beachborough. Hedge before Caesars Camp: Sugar Loaf, Holy Well, Folkestone **MNE** 1946. N of Bavinge Fm (loam-chalk) 1947, 62 **MNE**. Hastingleigh, scarp foot, 1948 **MNE**. Copse N. of Bossingham '62. Lane N of Bossingham '62. Wood W. of Misling Fm Elmstead (loam) 62. Doverd Rd C[anter]bury, '55. Bourne P[ar]k Bridge '55. Copse by Halfway Ho[use] by A2, '55. R[oa]dside Kearsney, '55. Alkham village, '55. Wood NW of S. Alkham, '55. R[oa]dside Paddlesworth, '55. R[oa]dside Hawkinge, '55. Copse S. of S. Alkham (ch[a]lk) 62. Reinden Wood (ch[a]lk) 62. Wolverton Cross R[oa]ds Alkham 62. Puckland Wood (ch[a]lk) '62. Stafflands Wood (ch[a]lk) 62. Oakwood on ch[a]lk, E side Goodnestone P[ar]k '62.

9) Copse, Durlock, Minster, 1959, A.B.S.

10) Westerham Wood PCH 82. Scords Wood. Brockhault Mount. Rooks Hill 55. One Tree Hill '55. R[oa]dside, Eynsford PCH. Hedge NW of Ightham (F[olkestone] Sand) '55. Wood SE of L[owe]r St Clere. Copse on Gault SE of Kemsing, FR, PCH.

11) Wood SW of Mereworth 55, Lane, Hadlow→Starvecrow 55. Tonbridge Castle 55. ¼m N. of Bough Beech 55. Wood by str[eam] 1m N of Bough Beech 55. S. of Ide Hill 55. Fairhill. Allington Wood 1880 **MNE**: 1958. W. of Bearsted by A20. E end of Mote P[ar]k. Copse, Willington St[reet] by R Len. Park Wood Boughton Mon[chelsea]. Kiln Wood Lenham, on clay and n[ea]r str[eam], 62. E. Malling 43 **MNE**. '55 Holt Wood Aylesford. R[oa]dside S. of Aylesford Br[idge] 55. Larkfield Heath 55. Leybourne Wood 55. Oaken W[oo]d R[oa]d, Barming 55.

12) Cadmans Wood. Brabourne Lees.

A. italicum Mill. subsp. **neglectum** Towns. 15 1/52 2n=84.

Native: deep, well-drained banks on calcareous rocks: very rare and as a native only known in one locality in Kent so far. There are a number of old records from S.E. Kent quoted in Fl. K.: C.T. Prime and I have visited most of these, and C.T.P. has looked at the available herbarium material: he has concluded that all records prior to the one quoted below are errors (see Melvill's account of his reputed discovery of this at Folkestone in J. Bot. 1888, p.348, and N.R.A. Brigg's comment in Ibid. p.378).

It is locally common in sheltered localities on the chalk in W. Sussex, and westward from these; not recorded in any other adjacent county nor in France NE of Normandy.

16) Steep shaded and rocky banks of stream, in copse on Sandgate Beds, S. of Brockhill School 147357, Saltwood, 1960, I.J. Hughes, conf[irme]d C.T. Prime; 1961! **MNE**; 1962, D.A.C.L.

L= of leaves 3½" long, m= 4¾", 17.9.60. L= 4", m= 6", 15.10.60. L= 6½", m= 8", 13.11.60.



subsp. **italicum**

The type of this species (with white veins) occurs as escape at several places:

7) N[ea]r Bungalow by Pilgrims Way NW of Westwell, E. Scott, det. C.T.P.

10) E. side Hosey Common, n[ea]r French Street, Westerham, under Hawthorns, 1960, RAC, det. C.T.P.

11) Cobtree Hill, Aylesford, 1926, **MNE**.

12) By E. Stour, below Smeeth, 1957, L.J.M. **MNE**. Mersham Park, in woodland, 1960, Miss E. Davies.

†**A. dracontium**

11) Appeared among rubbish in garden, Sutton Valence School, teste Mrs Oldaker, 1962.

A. dracunculus

16) Old r[ai]l[wa]y bank, Shorncliffe, for 3 years to 1950, teste V.F.P.Day.

LEMNACEAE

Spirodela Schleid.

S. polyrhiza (L.) Schleid.¹⁰⁷ 15, 16 23/51 Greater Duckweed

Native. Ponds, and slow-moving rivers and ditches: very widespread and locally common in fresh base-rich waters. Surprisingly rare in 2); common in 4) and 15), and in the Medway-Beult system in 11) and in the Stour. [old records for Plumstead, Northfleet and Harty Ferry, Fl.K.]

2) 06 Dikes NW of Waystreet Fm, Hernhill, 055616, 1955 **MNE**

06

4) Fordwich Marshes, 1949, E. Robinson; 1963 MEM. 26 Preston Marshes, 1949; 1962.; below the Church 1955 **MNE**. 25 Deerson Marshes, 1955 **MNE**. 26 S.of Plucks Gutter, 1949. Grove Ferry MrsB. Stodmarsh RGW. Chislet Marshes, LWW. R[iver] Wantsum by A.299, 1946.

15, 25, 16, 26, 36

10) 45 Westerham, R[iver] Darent AGS.

11) 64 Ditches N. of Medway, E of Tonbridge, 1952. 84 Beult, S. of Headcorn Church, 1962, 1954 **MNE**; 831440. 84 Kelsham, W of Headcorn, 1956 **MNE**. 74 Beult, N of Cross in Hand, Staplehurst, 1955 **MNE**. pond 535494, Fletchers Green, Weald, CAS. 74 Pond E of Mayden, 1946. Pond, Marden Mill, 1947 **MNE**. 75 Small concrete pond, Forstal, Aylesford, EG Philp 62. The Moat, Ightham Mote, 1955, M. Mallison. 44, 54, 64, 74, 84, 75

12) 94 Stour below Ashford, '49, E.S. 04 R[iver] Stour, Olantigh Br[idge], Wye, L.W.W.

94, 04

13) 53 Tunbridge Wells, '55.

53

15) 01 Dungeness. 02 Brenzett. 93 R[oyal] M[ilitary] Canal, Kenardington, 1959 **MNE**. 83 Dike, Windmill Channel, E of Freezingham, Rolvenden, 1959 **MNE**. 82 Dikes SW of Small Hythe, 1956. 92 Appledore.

83, 82, 93, 92, 02, 01

Lemna L.

L. gibba L. 15, 16 25/51 Fat Duckweed

Native. Streams, ponds, and ditches in fresh and weakly brackish waters: common in the marsh districts 2), 4) and 15), in 12), 13) and in the Medway-Beult system in 11); rare elsewhere.

¹⁰⁷ In the manuscript, given as **Lemna polyrhiza** L.

- 2)** 77 Higham Marshes, 1944-1956; flowering here, D.P.Y. 1947. 67 Northfleet Marshes, stream 615746 PCH. 76 N. of Burham Fl. K. 87 Dike, All Hallows, AGS. 06 By Waystreet Fm, Hernhill. 96 Dikes, Blacketts Tonge. **67, 77, 87, 96, 06**
- 4)** Fen Ditches N. of Wingham, R. Wantsum, by A.299. Fordwich Marshes, 1949, E. Robinson. Worth Minnis. S. of Plucks Gutter, 1962 DACL. W of Sandwich 1946. Preston Marshes, '62. Deerson Marshes, Preston, 1955 **MNE**. Stodmarsh, LWW: 1963, RWW. Ham Fen. Grove Ferry. Wenderton, BN. **16, 15, 26, 25, 36, 35**
[10] unrecorded.]
- 11)** 65. 54 Ditch near Medway, Tonbridge, GE Shaw. 64 Pond, Ploggs Hall, Whetsted, 657458, CAS, 1957. 84 R. Beult, 832440, S. of Ch[urch], Headcorn, '62. 74 E of Staplehurst, 1950. 74 R. Beult, Cross in Hand, Staplehurst 1955 **MNE**. 94 Pluckley. **54, 64, 74, 84, 65**
- 12)** Ditches S. of Willesborough, E.S. N. of Willesborough. Near Ashford Sewage Works, 1949, E.S. Stour, Milton Bridge, MEM. **94, 04**
- 13)** 64 pond, Kippings Cross, 644401, 1957, CAS.
- 15)** 92 Appledore. 02 Brenzett! RGW. 02 New Romney. 02 Brackish Marsh (old estuary) SW of Littlestone 1950 **MNE**. 83 Windmill Channel, E. of Rolvenden Layne, 1959. 93 Shirley Moor. 03. **83, 82, 93, 92, 03, 02, 01**

L. minuta

Now common.

L. minor L. 15, 16 50/51 Common Duckweed

Native. Fresh and weakly brackish waters, in streams, ponds and ditches; abundant in such habitats wherever they occur; hence very rare in the chalk districts.

- 1)** 36 Beckenham Place. Shooters Hill, GMB. 46 Keston Upper Pond PCH. Ruxley Pits, S&S. Bexley Mill pond PCH. R. Cray, N Cray, PCH. Pond S of Joydens Wood, PCH. Pond in Farningham Wood, PCH. **36, 46**
- 2)** 47 Dirch below Sewer Bank, Plumstead, PCH. 57 Dike Dartford Marshes, 541761, '62. Swanscombe Marshes. Northfleet, Ebbsfleet, HAS. Stream, L[owe]r Halstow, 857669, '62. 96 Luddenham Marshes, H.M.W. Pond by Bysing Wood HMW. 06 Seasalter HMW. **76, 86, 96, 06, 47, 57, 67, 77, 87, 97**
- 3)** Pond by Ch[urch], Blean.
- 4)** Marshside, Chislet 225661, '62. Preston Marshes, 1947-62 **MNE**. Deerson Marshes 1955 **MNE**. Stodmarsh. Plucks Gutter. Ham Fen. Hacklinge. Worth Minnis. Fen N of Wingham. Grove Ferry. Fordwich Marshes. Sturry Marshes. Westbere Marshes. N of Sandwich Bay. Wenderton BN. **16, 26, 25, 36, 35**
- 7)** Pond, Eastling, C.T., 963566.
- 8)** 24 Bushy Rough Lake. Pond, Coldred. 34 R. Dour, Kearsney. Gate Fm Pond, Rhodes Minnis, ES. Pond, St Margarets at Cliffe DPY. **24, 34**
- 10)** Seal Chart, 1946. River below Shoreham PCH. St. Johns Jerusalem PCH. **45, 55, 56**
- 11)** 75. 85. 66. 44. 54. 65 Leybourne Castle Lakes. 65 Platt, DMCC. 64 Pond E of Hale St[reet] CAS. 74 Beult, N of Cross in Hand, Staplehurst, 1955 **MNE**. E of Marden. Pond Haysden 568449. 84 Beult S. of Ch[urch], Headcorn, 831440, 62. 84 Pond W of Leighbridge, 813454, Headcorn, 1962. 84 Pond by River E of Golden Square, Smarden, 1962. **44, 54, 64, 74, 84, 65, 75, 85, 66**
- 12)** 14 Stowting stream. **94, 04, 14, 95, 05, 15**
- 13)** Stone Cross Gill, Ashurst, 518381, 1959, CAS. 63 Ditch S. of Lamberhurst Church 684365, CAS. N of Kippings Cross, 644401, 1957, CAS. Dunorlan, T[unbridge] W[ells] CAS. Bayham CAS. **53, 63, 73**
- 14)** **72**
- 15)** 93 R[oyal] M[ilitary] Canal, W of Bridge, Kenardington 1957 **MNE**. Shirley Wood. Stone Ferry. 83 Ditches, Windmill Channel, S of Rolvenden 1959 **MNE**. **83, 82, 93, 92, 03, 02, 01, 13**

L. trisulca L. 15, 16 42/51 Ivy-leaved Duckweed

Native. Ponds and ditches, in fresh base-rich and in brackish waters; very abundant in the coastal marsh districts and estuaries of 2), 4) and 15), far less common than *L. polyrhiza* inland in 11) and 12); very rare in 13).

- 1)** 37. 46 Pond, Bickley **37, 46**
- 2)** 57 Dike, 541761, Dartford Marshes, '62. Denton Marshes. Shorne. Cliffe Marshes. 77 High Halstow Marshes 1958 **MNE**. West Court Marshes, Cliffe, PCH. Sheppey, A.G. Davis 1917 **MNE**. Pond in Park by Bysing Wood, HMW. 96 Luddenham Marshes, HMW. 06 Oare Marshes, C.T. 96 Blacketts, Tonge. 06 Dikes W. of Maystreet Farm, Hernhill, 1955 **MNE**. 06 Seasalter HMW. **76, 96, 06, 57, 67, 77, 87, 97**
- 3)** Kites Fm, Swalecliffe; Swalecliffe Sewage Works, HMW.

- 4) Marshside, Chislet, 225661, '62. Deerson Marshes, Preston, 1955 **MNE**. Preston, Marses to NW of Ch[urch], 1956 **MNE**. West Stourmouth, 1956 **MNE**. Grove Ferry, LWW. Sarre, LWW. Fordwich. Stodmarsh. S of Plucks Gutter. Wenderton, BN. SE Ham Fen 1991. Sholden (Cottington C[our]t) REW. 16, 15, 26, 25, 36, 35
- 8) 24. 34. 24, 34
- 10) 45, 55
- 11) 75. 85. 74 Yalding. 84 Pond by River, SE of Golden Square, Smarden. 74 Marden, E of, 1946. 64 Below Tonbridge. Haysden, 568449, McFarlane. 75, 85
- 12) 04 S. of Willesborough. Ditch n[ea]r R[iver], Chilham / Chilham Castle Lake, ES. 44, 54, 53, 64, 63, 74, 84, 94, 05, 04
- 13) Pond, Cornwallis Ho[use], Cranbrook, 1954, D.S. 63 Ditch S. of Lamberhurst Church, 1937, J.R.W.; 1960, CAS.
- 14) 72. 72
- 15) 93 Shirley Moor. 02 [Lydd, 1897, H. Lamb, **MNE**.] 13 Ditch, Burmarsh Rd, Hythe, LKM. 82 Sandhurst Levels, 1954 **MNE**. 93 Appledore, 1954, **MNE**. 03 Ruckinge, 1956 **MNE**. 92 W. of Snargate, 1959 **MNE**. 83 Dikes E of Freezingham, by Windmill Channel 1959 **MNE**. 83, 82, 93, 92, 03, 02, 01, 13
- 16) 13 Pond by Folks Wood, Pedlinge, LJM.

Wolffia Horkel ex Schleid

- W. arrhiza** (L.) Horkel ex Wimm. 15, 16 7/51 Least Duckweed
- Native. Ponds and ditches: rare, but locally abundant in a few places in 4), 11) and 15): unknown elsewhere.
- * 1935: BEC, 1935, p.44.
- 4) Preston Marshes, 1947. Fordwich Marshes, 1963, M.E.M. S. of Plucks Gutter, 267630, 1949; 1965. Stodmarsh. Grove Ferry, C.T.; Mrs B, 1961-2. 26
- 11) JPMB, BEC '35 Rep, p44. Pond 1m E. of Marden, 1946, 1952. 74
- 15) 83 Dike by Windmill Channel, E of Rolvenden Layne, 1959, 867305. 93 S. of Kenardington. Shirley Moor, dike N. of B.2060, 1965. 03 Newchurch, E.S., 1956. 92 Snargate, E.C.W.: ES: (1959!). 92 E of Stone, E.C.W. Ditch S of R[oyal] M[ilitary] Canal, Ruckinge, 1956. E.S. N. of Arrowhead Bridge **MNE** W. of Snargate. (* BEC Rep. 1939-40, p297.) 02. 83, 93, 92, 03, 02

JUNCACEAE¹⁰⁸

Juncus L.

- J. squarrosus** L. 15, 16 Heath Rush 5/52
- Native: dry- and wet-heaths: very rare, but still plentiful at Hotfield Common. Still very common on the heaths of Surrey and Sussex, very rare in Essex: very rare in Pas de Calais (3 localities only now).
- 1) 46 Keston Common, 1944-62, **MNE**. 46
- 10) [55 Rose Wood, Ightham Common, above highest pond, 1899, H. Lamb **MNE**: 1944!, not seen 1965-66.] 65 By A20, Wrotham Heath, 1944. Valley Wood, S. of Wrotham Heath, 1946-66 **MNE**. 85 Heath by Sandway Bog, Lenham, 1965, B. Dodds.
- 12) 94 Hothfield Common, 1943-62, abundant in wet-heath and damp heath communities, **MNE**.
- 13) [Southborough Common, Miss Crampton: gone by 1960, C.A.S.]

- † **J. tenuis** Willd. 15, 16 11/52
- Naturalised alien, becoming widespread in damp paths in woods on acid soils, but still rare.
- West Kent, St J. Marriott, BEC Rep., 1925, p899.
- 1) 56 Farningham Wod, PCH.
- 3) 15 Fordwich, DHK.
- 4) 35 Walmer Castle Field BN. 35 Sandwich Bay.
- 5) 45 Footpath through freash coppice Newyear Wood Cudham 1956, 6 pl[ants]: 1961, 1 pl[ant] M. Swain; not found 1962. 45
- 8) 04 Wood NE of Hastingsleigh, on Pliocene Sand, 1946, **MNE**. 04
- 10) Sevenoaks, 1964, Mrs. Spear. Hosey Common, E side, 1957, RAC. 55, 56
- 11) 75 Oaken Wood, SE of E. Malling, 1962.

¹⁰⁸ In the manuscript, this section follows Liliaceae.

13) Ferndale, T[unbridge] W[ells] Common, CAS. Lake Rd, T[unbridge] Wells, 1957, KEB. 53 Rusthall Common, 1946. 63 Hook Green, 1941, JRW. 73 Angley Wood, P.W. Richards: 1956! In ride, MNE. 64 Path in wood SW of Pembury 614395 PCH. 83 Bayham, CAS. Bedgebury Pinetum, GMB. Combwell Wood, 1979. 53, 63, 73, 83, 64
14) 73 nr Mopesden, Hawkhurst, 1946.

J. compressus Jacq.

15

6/51

Native. Moist calcareous meadows, associated with chalk springs: rare, but locally plentiful in 4) and 12) and in one place in 11). Local in meadows by the Thames in Surrey; very rare in Sussex; unrecorded for Essex; frequent in the Pas de Calais. This is an inland freshwater species, in contrast to the next, and its globular fruits much exceed the perianth in length.

4) 35 Worth Minnis, 1947-51 **MNE**. 26 Plucks Gutter, FR. 35 Hacklinge Marshes. 25 Fen N. of Wingham, 1946-47 **MNE**. **25 26, 35**

11) 85 By entrance to the Brooks, below Fairbourne Mill, Harrietsham, 1961, 1962, B. Dodds; E. Philp. **85**

12) 04 Fen Meadows, Cuckoldscomb, E of Brook, 1946-54 **MNE**; 1986!. 04 Fen Meadows, Brabourne Coombe, 1946. 14 Fen Meadows, Stowting, 1947-54 **MNE**. 04 Fen Meadows S. of Brabourne Church, 1954 **MNE**. (Chilham, damp road verge nr. gravel pits, 1960, BN.)

J. gerardii Loisel.

15, 16

24/51

Native. Brackish ditches and meadows: upper parts of tidal saltings: fresh meadows in former estuarine areas: common and general on these habitats in 2), 4) and 15). Inland at Swalecliffe in 3), in 12) at Sevington, E.S. In 15) it occurs well inland at Fairfield, Sandhurst Levels, Brenzett and Shirley Moors, probably as a relic of ancient brackish conditions. Probably now extinct by the tidal Thames in Surrey, but plentiful locally in its typical habitats in Sussex, Essex, and Pas de Calais.

2) Plumstead Marshes, 1862, Hb. Lamb **MNE**. Woolwich Arsenal, 1944. Erith Marshes, PCH. Stone Marshes. Swanscombe Marshes. Hogham. Cliffe Marshes 1945 **MNE**. Upper Saltings Funton, '62. Dikes and Brackish Creek, Chetney S., '62. W of Upnor. Elmley, 1954 **MNE**. Harty, 1955 **MNE**. N of Leysdown. Shellness. Brackish marsh by Stoke Junction 1945-59 **MNE**. All Hallows 1945 **MNE**. Marsh dikes, Grain 1945 **MNE** N coast, 1959 E coast. N of Blacketts, Tonge, 1958 **MNE**. Funton, '61. Conyers Creek. Oare Creek. Cuxton Saltings 1945, **MNE**. Halling Marshes 1944, **MNE**. W. of Conyer Creek. W. of Seasalter 1944: P.R.B. 1946: '60 **MNE**. Cleve Marshes, Graveney, 1945 **MNE**. Holborough Marshes. S. of Snodland 1943 **MNE**. Aylesford. Oare Meadow. **75, 76, 86, 96, 06, 47, 57, 67, 77, 87, 97, 07.**

3) 16 Swalecliffe, REW. **16**

4) E. of Reculver. N. of Shuart, St Nicholas, 270686, '62. By Stour, N. of Sandwich: Shellness, 1946 **MNE**. Stodmarsh, 1955, EGP 1958. W of Pegwell Bay, 1945 **MNE**. Plucks Gutter, in meadow, 1953 **MNE**. N of Wingham. **26, 25, 36, 35**

12) Road verge, Sevington 036404, 1957, ES. **04**

15) Brenzett W of Ch[urch], 1945 **MNE**. Galloways, 1953. Sandhurst Levels, 1954 **MNE**. NE of New Romney. S. of Appledore **MNE**. South Brooks, 1945. Midrips. Dungeness nr School, 1953 **MNE**. Marsh behind Greatstone, 1950. S. of Lympne by dike, 1947 **MNE**. NE of Dymchurch, 1947 **MNE**. Fairfield, 1952 **MNE**. **82, 93, 92, 02, 01, 13**

J. bufonius L.

15, 16

Toad Rush

51/51

Native. Bare, damp ground, such as pond banks, paths, track ruts, often in woods and on heaths on acid soils, but also in fens and marshy meadows: very common, except in the chalk districts, 5) – 9), where it is rare: common in the adjoining counties and in N France

1) Chislehurst Common. Hayes Common. Keston Common, by pond, PCH. Joydens Wood, PCH. Farningham Wood, PCH. Hayes gravel pit, 1915, A.G.D., **MNE**. Beckenham Place, PCH. Ruxley pits, S&S. Repository grounds, Woolwich, LRA, 1934 **MNE**.

2) Higham Marshes. Holborough Marshes. Grain, 886774, AGS. Oare Meadow, H.M.W. Gravel pits E of Bysing Wood, HMW.

3) Trenley Park Wood REW. Church Wood, Blean (+ var. fasciculatus). Stodmarsh, 1948, LWW. Westbere Marshes, MEM. Ham Fen ... 1996.

5) Pond, Downe village, 1960, FHB.

6) The Thrift, Bean, PCH. Mounts Wood. Arable SE of Darenth Wood HMP. On c[lay] w[ith] f[lints] on path, Preston Hill, PCH. 24 Grabble Wood, N of Paddlesworth, 1956, BN.

8) Pond, Gate Fm, Rhodes Minnis, 1955, DACL. Napchester Wood, in clearing, 1957, BN.

- 10)** Darenth Meadows PCH, FR. Bradbourne pits, FSEF. Roadverge 1½ m N of Westerham RAC. Ightham Common. Seal Chart, SW part 1954 **MNE**.
- 11)** Leybourne. Ryarsh Wood. Horish Wood. Sandhurst Wood. Platt. 683493, gravel pits E. of Brandbridges, 1952 **MNE**
- 12)** Hothfield Common. Willesborough Lees. Ashford Warren. Gibbons Brook.
- 13)** Stone Cross Gill, Ashurst, 518381, CAS, '59. Penshurst Park. Moorden, Penshurst. Ride, South Park Woods on T[unbridge] W[ells] S[and], '62. Modest c[o]r[ne]r, Southborough, HNC. Hawkenbury. Pembury Wood. Dingley Wood. Bedgebury. Combwell Wood, 1954 **MNE**. Brewers Wood.
- 15)** Romney Warren, 1945. Greatstone, dune slack, 1950 **MNE**. Denge Beach shingle workings, J. Hibbard.
- 16)** Folkestone golf course, VFPD.

J. inflexus L. 15,16 51/52 Hard Rush

Native. Meadows, alluvial grasslands, pastures and marshes on moist or heavy base-rich soils or on alluvial peat: very common and often abundant, except in the chalk districts 5) – 9). Particularly abundant in the marsh districts 2), 4), and 15), and on the Weald and Gault Clays in 10), 110, and 12); its local abundance in grasslands indicates poor drainage. Abundant throughout S.E. England and N. France.

- 1)** Rd cutting in clay, W. Wickham, 1955, J.M. Sherwood. Gattons Plantation, PCH. Shooters Hill, GMB. Ruxley Pits, S&S.
- 2)** 857669, L[owe]r Halstow by str[eam], '62. Grain, PCH.
- 3)** Luddenham Marshes, 61, HM Wilks.
- 4)** Hacklinge. Ham. Wingham. Pegwell. Minster, waste g[roun]d, 1963. Westbere Marshes, MEM.
- 6)** Darenth Wood, PCH. Swanscombe Park.
- 8)** 24 Woolwich Wood, KDR. 34 Pond, E. Langdon, 1959, BN.
- 10)** Knole Park, PCH. Above S. Darenth, PCH. St Johns Jerusalem, PCH. Darenth Meadows, PCH. Lullingstone PCH. Bradbourne pits FSEF.
- 11)** Addington Place, DMCC. Claypit, Trottisciffe SW, HAS. Platt Brickfields, DMCC. Fairbourne Mill, Harrietsham BD. 683493, E of Hale St, 57, CAS. Rdside Leighbridge, Headcorn, 813454, '62. Green Lane E of Headcorn, 849437, '62. Pond ¼ m SE of Smarden, '62. Lane E of Golden Square, Smarden, '62. Path 915405, Birch Wood, Bethersden, '62. Kiln Wood, Lenham (Sandgate), '62. Pluckley Brickworks .ES.
- 12)** Cuckoldscoomb, Brook. Stowting.
- 13)** By str[eam], High Rocks L[a]n[e], Tun[bridge] Wells, 1960, CAS. Ditch S. of Lamberhurst Church, 684365, 1960, CAS. Southborough, field & Vauxhall Lane, HWC.
- 16)** below Lympne Castle: Aldington. Base of Hythe W. Scars. East Wear Bay, Folkestone Warren, & to E., on Gault v[ery] a[bandant]. Darnley Val e. Newington Moor. The Lince, Etchinghill. Asholt Wood. Beachborough.

J. effusus L. 15, 16 50/51 Soft Rush

Native. Very Common and abundant in damp grasslands, marshes, and open places in woods on a wide range of soils from weakly acid to calcareous and brackish types: rare only on the chalk in 5) – 9). Abundant throughout S.E. England and N. France.

- 1)** Beckenham Place, PCH. Hayes Common, PCH. Abbey Wood, PCH. Crofton Heath: High Wood, Crofton, PCH. Joydens Wood, PCH. Mount Mascal, Bexley, PCH. North Cray Wood, PCH. Gattons Plantation, PCH. Farningham Wood, PCH. Ruxley pits, S&S. Keston Common.
- 2)** 857669, L[owe]r Halstow Fen, '62. Holborough Marshes. Snodland S. Marshes. Luddenham Marshes, HMW. Oare Meadow.
- 3)** R[oa]dside Pond SE of Blean, CAS.
- 4)** Wenderton, meadows BN. Westbere Marshes, MEM. N. of Sandwich Bay.
- 5)** Andrews Wood, PCH. 396611, PCH.
- 6)** Swanscombe Wood, **MNE**, 1945. On c[lay]w[ith]f[lints], Preston Hill, PCH.
- 8)** Park Hill, Hougham, on c[lay]w[ith]f[lints], DPY, '55. Reinden Wood BN. Unrecorded in 34 from Dover to Kingsdown.
- 10)** Westerham Wood PCH. Meadow nr. Darent W of Brasted GMB. Knole Park PCH. Bradbourne pits FSEF.
- 11)** Fairbourne Mill BD. E. of Hale Street 683493, CAS. Ditch E of Headcorn 849137, '62. Pond, Leighbridge Headcorn 813454, 62. Pond ¼ mSE of Smarden, 62. Lane E of Golden Square, Smarden '62. Pluckley brickworks ES.
- 12)** Hothfield Common. Warren Woods. Willesborough Lees. Mersham le Hatch.

13) Path, S. Park, Penshurst, '62. Stone Cross gill, Ashurst, 518381, 1960, CAS. Southborough HNC. Stream, High Rocks La[ne], T[unbridge] Wells, 1960, CAS. Boggy Wood W. of Pembury (T[unbridge] W[ells] S[and]) 614395, PCH. Ditch S of Lamberhurst Ch[urch], 684365, 1960, CAS. Bayham.

14) College Wood Wittersham 897265, '62. Rook Wood, Wittersham, '62.

16) Seabrook Whitenbrooks Wood, 1947 **MNE**. Copt P[oin]t, Folkestone Golf Course. Asholt Wood. Park Farm, below Shornecliffe, VFPD.

J. effusus x inflexus = J. diffusus Hoppe

11) Leybourne, 1962, Mrs. R. Begg.

13) Ashour Wood, CAS. By stream, High Rocks La[ne], T[unbridge] Wells, CAS, 1962.

J. conglomeratus L.

15, 16

44/51

Compact Rush

Native. Damp grassland, marshes, rides and clearings in woods: not quite as abundant as *J. effusus*; though very well distributed; it is rare in 2) and the NE part of 4), rather more common on acid soils. Most easily distinguished from compact-headed forms of *effusus* by the stem, which has fewer and stronger ridges and feels fluted when rolled between finger and thumb (*effusus* feels smooth). Common throughout S.E. England and N. France.

1) Crofton Heath, PCH. Joydens Wood, PCH. Gattons Plant[atio]n, PCH. Farningham Wood, PCH. Chislehurst Common 1945 **MNE**. Shooters Hill GMB.

2)

(not rec[orde]d for 87, 97, 07, 96)

3) Marsh, Old Park, E of Canterbury 1947 **MNE**.

4) W of Minnis Bay, M.E.M. Westbere Marshes, MEM.

Not rec[orde]d for 26, 36

5) Andrews Wood S. of Badgers Mount PCH.

8) Eastling Woods, BN. Reinden Wood, 1959, BN.

11) King's Wood, Harrietsham, B.D. Kiln Wood, Lenham (Sandgate), '62. Pluckley brickworks, ES.

12) Hothfield Heath, 1947 **MNE**. Field SW of Sellindge Ch[urch] RAC.

13) By Stream, High Rocks La[ne], T[unbridge] Wells, CAS. Boggy Wood W. of Pembury 614395, PCH. Ditch S. of Church, Lamberhurst, 684365, 1960, CAS. Stone Cross gill, Ashurst, 518381, 1959, CAS. Tongs Wood Lamberhurst JPM. Bayham CAS. Chittenden Wood, 1946, **MNE**.

14) College Wood, Wittersham 897265, '62. Moor Wood, Benenden (T[unbridge] W[ells] S[and]), '62.

15) Bird obs[ervatory] area, Denge Beach J. Hubbard.

16) Copt Point, V.F.P.D.

(not rec[orde]d for 13)

J. maritimus Lam.

15, 16

12/51

Sea Rush

Native. Upper parts of tidal salt marshes: common in 2) from below Gravesend to Seasalter and up the Medway to Cuxton; in 4) in the Stour estuary below Sandwuch; and in 15) rare, and only at Littlestone and SW of Lydd.

2) Saltings by Thames. Chalk. Shorne. Higham. Higham canal, '44. Grain 862752. S. of Hoo. Stoke. W and E of All Hallows. Cuxton. W of Upnor. [Snodland, 1890, H. Lamb **MNE**.] Upper Saltings, Funton, 1962. Faversham Creek, 1943-49 **MNE**. Graveney. Seasalter. N. of Kings Ferry. Elmley. Harty. Shellness.

67, 77, 87, 97, 76, 86, 96, 06

4) N. of Sandwich by Stour, from Downs Farm to river mouth. Saline dune slacks S. of Shellness, Sandwich Bay **MNE**.

35, 36

15) S of Lydd, H. Lamb 1897 **MNE**. Old Rother estuary S of Littlestone. S. of Dymchurch, RGW. South Brooks.

01 02

J. acutus L.

15

2/51

Great Sharp Sea

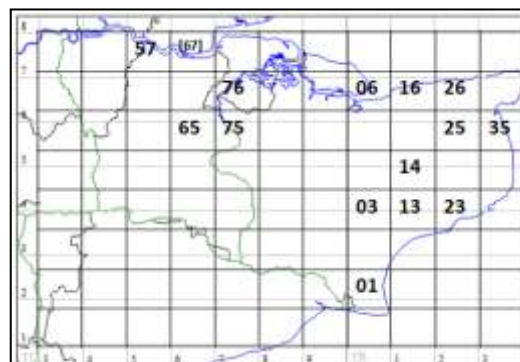
Native. Dune slacks, both saline and fresh, and sandy salt-marshes: very rare, but locally abundant from Deal to the estuary of the R. Stour. Not known elsewhere in S.E. England, or in N. France E. of the Cotentin. It occurs very rarely in Norfolk., and is abundant in the dune slacks of N. Devon and Wales. It is an essential ly Mediterranean species in Europe.

4) Pegwell Bay (Ebbsfleet), 1946-60. Very abundant at edges of saline dune slacks S. of Shellness, Sandwich Bay **MNE** 1945-62. Is locally dominant behind St. Georges Links, 1945 **MNE**. Behind Princes Links, 1962, slack W. of Princes Club Ho[use], 1963. Hollow behind Guilford Hotel, Sandwich Bay. E side of Stour 2 miles NE of Sandwich 1957 **MNE**. Deal Links.

J. subnodulosus Schrank
15/52 [16/52]

15, 16

Native. Calcareous fens and fen meadows, usually on peat: rare generally, but locally common in 4) and 16); scattered elsewhere in 2), 11), 12), and 15). Very rare in Surrey, Sussex and Essex; locally common in fens in Pas de Calais.



2) Footscray Meadows, R. Burton. 57 Ditch, Barnes Cray, below Crayford, 1944 **MNE**. 76 Holborough Marshes, Snodland, abundant, 1944, **MNE**. 76 Snodland S. Marshes, one clump, 1943-44 **MNE**. 06 Gravel pits NE of Oare, 1959, **MNE**. [67 Northfleet Brooks, 1862, Maidstone NHS, **MNE**.]

4) 35 Ham Fen, abund[ant] 1946-62-96, **MNE**. 35 Hacklinge Fen. 35 Northbourne Fen. 35 Worth Minnis 1947-60 **MNE**. Wenderton Ditches BN. 25 Fen dikes N. of Wingham 1946-60 **MNE**. 35 Deal Links, in damp hollows 1946 **MNE**. 35 behind dunes, N. of Sandwich Bay. 26 Stodmarsh! 1964, PWW. 16 Westbere M[arshes]. 15 Fordwich M[arshes].

11) 65 Leybourne Castle Lakes, 1958 **MNE**. 75 Mote Park Lake, Brian Woodham[s], 1964.

12) 14 Calcareous fen-meadow, S. of Stowting, 1954...1986.

15) 01 Old shingle workings NE of Bird observatory, Dungeness, 1953-62 **MNE**.

16) 03 flush, below Copperhurst, Aldington, 1946. 23 Darnley Vale, Coolinge, 1947. 23 Marshy flushes over Gault, The Warren, Folkestone, GPSR; H. Lamb 1899 **MNE**; 1947-58 **MNE**; 1965, BN.

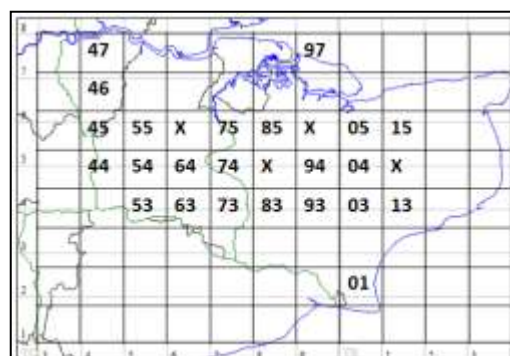
J. acutiflorus Ehr. ex Hoffm.

15, 16

23/51

[Sharp-flowered Rush]

Native. Valley bogs and swamps on heaths or in woodland, on moderately acid peat: rare on the Eocene gravels and sands in 1) and 3), local on the Folkestone Sand heaths of 10), 11), 12), and 16); only common on the Hastings Sands of 13); very rare in 14); and Dungeness in 15). Usually associated with some degree of flushing with base-deficient water. Very common in the acid sandy areas of Surrey and Sussex on Bagshot Sands, Greensand and Wealden Sands; very rare in Essex and Pas de Calais where suitable habitats are few.



1) 46 Keston Bog, PCH, **1945 MNE**. 56 wet pl[ace]s, Farningham Wood, GMB. 47 Chislehurst Common. Ruxley Pits, S&S. 46, 47

2) Marsh on landslip on cliffs, E of Minster, 1954, on Bagshot Sands and London Clay. 97

3) Bigberry Wood, 1954 **MNE**. Church Wood, Harbledown (Rough Common) RGW. 05 Bog in Hunstead Wood, W of Chartham Hatch. 05, 15

10) 55 Ightham Common. 55 Oldbury Hill. 45 Marsh 1m. E. of Westerham 1955 **MNE**. Westerham Wood 82. 45, 55, unknown in 65

11) 85 Sandway bog, Lenham. ~~75 Mote Park.~~ 75, 85

12) 94 Hothfield Common, 1900, H.L. **MNE**: 1943-62! 04 Ashford Warren. 04 Willesborough Lees. 13 Gibbons Brook. 03 Stonehill bog, Sellindge. 93 Ponds S. of Willowbed Fm, Gr[ea]t Chart, 991397, ES. 93, 03, 13, 94, 04

13) 44 Hever. 54 Penshurst Park. 53 Hawkenbury Bog. 73 Bedgebury Forest (Louisa Lake: Pinetum). 73 Friezley Bog, N. of Cranbrook. 73 Angley Wood. Old Park Wood, PWR. 83 Chittenden Wood. 83 Causton Wood. 83 Rogers Wood. 83 Roundhill Park Wood. 54 Broke Wood, Southborough. 63 Owl House, Lamberhurst, JRW, 1942. 63 Mount Pleasant, Lamberhurst, 1944. 64 Hayes Wood, Pembury. 73 Combwell Wood. 63 Kilndown Wood. 73 Brewers Wood. 83 Sissinghurst Park Wood. Goudhurst Meadoew PWR. 64 Boggy Wood SW of Pembury 614395 PCH. 74 Wood NE of Curtisden Green 53, 63, 73, 83, 44, 54, 64, 74

14) 93 ——. 83 Knock Heath, Tenterden.

15) 01 Hoppen pits, Denge Beach.

16) 13 Whitenbrooks Wood, Seabrook, 1947 **MNE**.

J. acutiflorus x articulatus = J. x surreyanus Druce**J. articulatus** L. 15/16 43/51 [Jointed Rush]

Native. Marshy meadows, swamps and fens on neutral to calcareous peat or alluvial soil: rather frequent in most parts of Kent except the dry chalk districts.

- 1) 57 Joydens Wood, 1954, FR & PCH **MNE**. 46 Keston Common, A.G. Davis, 1915, **MNE**. 46 Holwood Park Lakes, 1949 **MNE**. 47 Cray Meadows, 1955 **MNE**. Ruxley pits, S.&S. **46, 47, 57**
- 2) 57 Barnes Cray, below Crayford, 1944, **MNE**. 77 Meadow $\frac{3}{4}$ m. S. of Cliffe Station, 1944. 76 Holborough Marshes, 1944 **MNE**. 76 Snodland S. Marshes. 96 Luddenham Marshes, 1961, H.M.W. Sheppey, A.G. Davis 1918 **MNE**. 06 Meadow N. of Oare Mill Pond, 1959 **MNE**. 07 Warden cliffs, in ravine. **76, 96, 06, 77, 87, 07**
- 3) Gipsy Corner, Clowes Wood, 1953, REW. Church Wood NW of Rough Common REW.
- 4) 35 Ham Fen, [locally] a[bandant] 1991. 35 Worth Minnis, 1947-60 **MNE**. 16 Westbere Marshes '65 MEM. Sandwich Bay. Wenderton Meadows BN. 26, 225661 Dike Marshside Chislet '62. 26 Stodmarsh, 1955 **MNE**. W. of Birchington, LWW, 1947. Fordwich, JG. Minster Meadows JG. **25, 35, 16, 26, 36**
- 10) 45. 55 Bradbourne Pits FSEF. **45, 55**
- 11) Addington Place, DMCC. 65 Leybourne Lakes. 65 Mereworth. 85 1m. S. of Harrietsham 1958 EGP **MNE**. 84 Pond 811454 W of Leighbridge Headcorn '62. 84 Pond E of Hale St. CAS 683493. 66 Ryarsh Wood. 75 Boxley, 1958, EGP, **MNE**. Pluckley Brickworks ES. **65, 75, 85, 66**
- 12) 04 Cuckoldscoomb Fen, Brook, 1946-54 **MNE**. 14 Stowting fen-meadows, 1954 **MNE**. 94. 95. **94, 04, 05, 95, 05, 15**
- 13) 63 Cocksbrook Wood, Lamberhurst, 1942, JRW. 73 Combwell Wood, 1959, **MNE**. Southborough HNC.
- 14) 93.
- 15) 01 Dungeness. 82. 92. 02 Romney. **02, 01**
- 16) 13 The Lince, Etchinghill 1958 **MNE**. 23 Gault, Folkestone Warren, in flushes, BN. **44, 54, 64, 74, 84, 53, 63, 73, 83, 93, 82, 92, 03, 13, 23**

J. bulbosus L. 15, 16 21/52 Bulbous Rush

Native. Bog pools, bare wet heathy ground, ruts in woodland rides, nearly always on acid substrata: locally frequent in 1) and 3) on the Eocene, and in 12) on the Folkestone Sand: commoner in the woods on T[unbridge] W[ells] S[and] in 13): very rare in 10), 14, and 15. Common in the heath districts of Surrey and Sussex, rare in Essex and in Pas de Calais.

- 1) 57 Joydens Wood, PCH. 46 Keston Common, 1915 AGD **MNE**; 1945! **MNE**. 47 Chislehurst Common, 1946: 46, 1961, HMP, 445692. 46 Holwood Park. Roundabouts Wood, Orpington, F.H. Swain, 1960. **46, 47, 57**
- 3) 05 Bog, Hunstead Wood, Chartham Hatch, 1956 **MNE**. 15 Bog, Bigberry Wood, Harbledown, 1954 **MNE**. 16 W. Blean Wood, in ride, 1953, R.E.W. Church Wood NW of Rough Common REW. **05, 15, 16**
- 5) Pond, Downe Village, 1960, F.H.B.
- 10) 55 Ightham Common, 1944. Westerham Wood 82. **55**
- 11) Sandway Bog, Lenham, 1965, B. Dodds. [Kings Wood (nr. Langley), 1898, H, Lamb **MNE**]. Pond E of Hale St[treet] 689493 CAS, 1957.
- 12) 94 Hothfield Common, 1943-62 **MNE**. 04 Willesborough Lees. 13 Gibbons Brook, 1945-54 **MNE**. 03 Stonehill Bog, Sellindge.
- 13) 54 E of Moorden, N. of Penshurst, 1949 **MNE**. 53 Hawkenbury Bog. 64 Boggy Wood W of Pembury 614395 PCH. 73 Louise Lake, Bedgebury Forest. 73 Marshall Lake, Bedgebury Pinetum. 63 Chingley Wood. 63 Kilndown Wood. 63 Bayham. 73 Combwell Wood. 83 Chittenden Wood. 74 Wood on T[unbridge] W[ells] S[and], NE of Curtisden Green, 1958. 73 Brewers Wood. 73 Angley Wood. **85, 03, 13, 53, 63, 73, 83, 94, 04, 54, 64, 74**
- 14) 72 Sandhurst. **72**
- 15) 01 Ballast pit, Dungeness. **01**

J. kochii¹⁰⁹

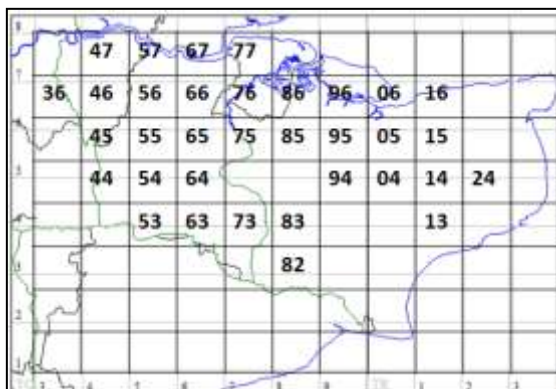
- 1) Keston Common.
- 11) Oaken Wood, E. Malling, 59, B. Nash.
- 12) Birchett Wood, 992358, 1952, DMCC.

¹⁰⁹ Formerly treated as a separate species, but presumably would not have been maintained as such if Francis Rose had continued his revision of taxa covered by the Flora.

Luzula DC.

L. pilosa (L.) Willd. 15, 16
44/51 Hairy Woodrush

Native. Dry woods and shaded hedgebanks, more abundant on lighter soils: very common in all wooded areas of Kent, but absent from the marshland areas and from Sheppey in 2), and wholly from 4) and 15): rare on the Weald Clay in 11) from Tonbridge to Smarden. Common in the adjacent counties and in N. France.



1) Shooters Hill Woods GMB. Abbey Wood, 1862 M.N.H.S. **MNE**; PCH, 1954; RAB. Crofton Heath PCH. Hockendell Wood, St Mary Cray, 1954 **MNE**. Hollows Wood, Chelsfield. Joydens Wood PCH. Farningham Wood, PCH. West Wickham Woods AGD, 1915 **MNE**. Joydens Wood, GAM.

2) Hawes Wood

[not in 87, 97, 07]

3) Thornden Wood. Trenley Park Wood. Church Wood SE, RGW. Bysing Wood. Perry Wood.

4) Copse, Wenderton Mabor, Wingham, BM.

[not in 26, 36]

5) Well Wood, 3964, PCH. Darwins Bank Wood, Downe...

6) E) Darenth Wood PCH. Swanscombe Wood, Holly Hill 668629, Blackheath Beds, '62. Horton Wood PCH. Preston Hill, on c[lay] w[ith] f[lints], PCH. Dunstall Woods, Shoreham, PCH. On loam, Hartley Wood, 1956 **MNE**.

7) Squirrels Wood, Stockbury, 1944 **MNE**. Coxett Wood (Thanet S.), '62. Longbeech Wood (975505, Pliocene loam), 62. Challock Woods (+ var. *alba*) 1957, ES.

8) Larkey Valley Wood. Up[pe]r Hardres Wood (Pliocene) 62. Reinden Wood (Pliocene) 62. Wood on c[lay] w[ith] f[lints] S. of Chilton 1949 **MNE**. Wood, Wooton, 1950 **MNE**.

10) Westerham Wood PCH. Ide Hill. Scords Wood, Brasted (oak copp[ice] on chert) 1954 **MNE**. R[oa]dside Wood S of Brasted 1954 **MNE**. Parsons Marsh HMP. Fawke Common. Bitchet Common. Seal Chart, 1952 **MNE**. Goathurst Common & to S[outh].

11) Ryarsh Wood 1943 GL **MNE**. Longham Wood 1944 **MNE**. Platt Woods. Wrotham Heath. Warren Wood E. Malling. Oaken Wood. E. Malling – Barming 1950 **MNE**. Mereworth Woods. Comp Woods.

13) Stone Cross Gill, Ashurst, 523388, CAS, 1960. High Wood, Hawkenbury. Parsonage Lane, Lamberhurst, JRW, 1938: 1944 **MNE**. Hungershall Rocks Wood 1947 **MNE**. Halls Hole Lane CAS. Chiddingstone CAS. Penshurst CAS. Old Park Wood. Pembury L[owe]r Green, M. Mallinson.

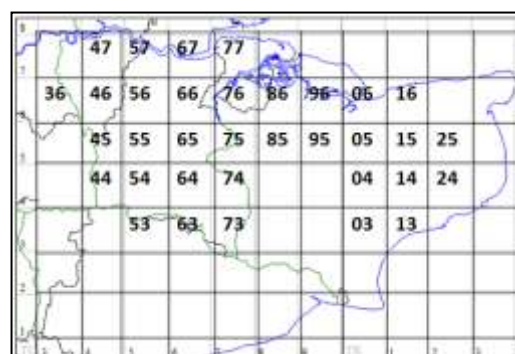
14) Robins Wood. College Wood Wittersham 897265, 62. Moor Wood, Benenden, '62 (T[unbridge] W[ells] S[and]). Bottoms, Appledore, 1908 J. Rodley **MNE**.

16) Willow Wood, Saltwood / Kiln Wood, Sandling, LJM. Bargrave Wood / Asholt Wood, JFPD. Not in 01, 02.

L. forsteri (Sm.) DC 15, 16 34/52 Narrow-leaved Woodrush

Native. Dry woodlands, particularly of beech and oak, especially on banks, mainly on chalk, sand or gravel; rather common to locally very common over most well-wooded parts of the county, but rare in 12), unrecorded in the marsh districts of 2), 4), and 15), and absent from the heavy clay soils: common over much of Surrey and Sussex: the Weald and the North Downs seem to be the headquarters of this species in Britain. Very rare in Essex, unknown in Pas de Calais, or NE of Normandy in France.

1) Holwood Park. Elmstead Lane, N of Bickley, 1944. Petts Wood. Hayes Common. Joydens Wood PCH: 1946.



Poke Ridden and Sparrows Woods, Swain. Farningham Wood PCH. Keston Common 1940 **MNE**. Abbey Wood, 1862 **MNE**: 1944! Rdside S. of Chislehurst Station, 1944. Rdside W. of St Mary Cray, 1944. Hockendell Wood E. of St Mary Cray 1954 **MNE**. Hollows Wood, SE of Chelsfield, 1945. **36, 46, 56, 47 Bexley**

2) Hawes Wood, Newington (Thanet S[and]) 1957 **MNE**.

3) Byssing Wood. Church Wood, SE part RGW. Thornden Wood, gravel drift 1945 **MNE**. Wood NW of Dunkirk 1945 **MNE** 1965. Dengrove Wood, 1955 **MNE** (Thanet S[and]). Wood E of Rhode Common ES. Trenley Park. **06, 16**

5) Darwins Bank Wood Downe, JGL. Wood W. of Shoreham PCH. 396611 Copse Highams Hill PCH. Beech Wood, Pratts Bottom, 1956 (ch[al]k).

6)E) Swanscombe Wood PCH. Mounts Wood. Whitehill, Shoreham. Horton Wood edge PCH. Darenth Wood, N side 581730, 1947 **MNE**. Lords Wood, Darenth. Shorne Hill HAS. North Wood, Cuxton 44 **MNE**. S edge Great Wood Cuxton 44 **MNE**. Cockham Wood Upnor (Than[et] S[and]) 1960 **MNE**. Chilton Hills Higham (Than[et] S[and]) 1956 **MNE**. Great Crabbles Wood, Shorne. Wood SW of Shorne, on Blackheath Beds. Court Wood, Higham. Hartley Wood 1956 **MNE**. Upper Halling Hangers 1953 **MNE**. **66 Meopham, 57 Dartford, 67, 77**

7) Potters Wood, Queen Down Warren. Wigmore. Bredhurst Hurst. Squirrels Wood Stockbury, drift, 1944 **MNE**. Coxett Wood (Thanet S[and]), '45, 62 **MNE**. Rainham Park. Filmer Wood (sandy loam) '62. Wood by Bottom Road Milsted (ch[al]k) 1956 **MNE**. Wood 1 ½m SW of Doddington, 1950 **MNE**. Kingsdown. **95, 05, 76, 86, 96**

8) 04 E of Wye, RGW. Covrt Wood, W of S Barham KDR. Woolwich Wood KDR. 14 Up[pe]r Hardres Wood (loam) '62. 25 Pitt Wood Adisham (ch[al]k), 1955 **MNE**, 1966. 14 Wood N. of Elham Park Wood (ch[al]k) 1958 **MNE**. Whitehill Wood, E. Robinson: 1958 BN. Absent in the east of 8). **04, 14, 24, 15, 25 (55)**

9) Unknown.

10) Westerham Wood PCH (gault). Goathurst Common. Fawke Common (chert). Bitchet Common (chert). Lane SW of Ightham (F[olkestone] S[and]) 1949. Broadhoath Wood, Stonestreet (chert drift) '50 **MNE**. Scords Wood (ragstone) 1954 **MNE**. Quinten Wood, S of Toys Hill (ragstone) 1960 **MNE**. Ide Hill. Whitley Forest. **45, 55**

11) Ryarsh Wood (F[olkestone] S[and]) SE C.... Ryarsh Roughetts. Mereworth Woods (ch[er]t). Comp Woods (chert). Oaken Wood (chert). E. Malling: and Barming. Warren Wood, E. Malling (chert). Snarkhurst Wood. Holt Wood, CW, FR (FS). Platt. Wrotham Heath. Maidstone (Simpsons Lane) **MNE** 1850: 1890. **65, 75, 85**

12) Rare. 03?

74! 54 abs[ent] in 94, 03 Ald[ington]

13) Stone Cross Gill, Ashurst, 523 388, 1960, CAS. R[oa]dbanks S. of Horsmonden. Shadwell Wood, Speldhurst, GB Shaw. Parsonage Lane, Lamberhurst, JRW, 1944! **MNE**. Ellis Wood, Lamberhurst. Rocks, Langton Green, 1944 **MNE**. Greybury Gill, 1954. (Dry Hill CES 1898 **MNE**.) Halls Hole Lane 1961 CAS. Lane E. of Bayham JRW. Chiddingstone Hoath CAS. SW of Penshurst, CAS. Old Pembury Ch[urch] 1961 CAS. Southborough W. Ashour Wood. Scotney Castle PCH. **51/ 53 T[unbridge] W[ells], 63h, 73c, 44, 54, 64**

14) Mopesden Gill, Hawkhurst (T[unbridge] W[ells] S[and]) 1952.

16) Bargrove Wood / Asholt Wood VFPD.

13 Hythe

Luzula forsteri x pilosa = L. x borrieri Bromf. ex Bab.

Native. This hybrid can usually be detected where the parents occur together – and nearly always where *L. forsteri* occurs, *L. pilosa* is nearby or intermixed.

1) Abbey Wood, RAB. Farningham Wood, PCH. Joydens Wood '46 **MNE**. Hollows Wood, Chelsfield 1945.

3) Thornden Wood 1945.

5) Beech Woods, Pratts Bottom, Chelsfield, 1956 **MNE**.

6) Darenth Wood, ESM.

7) Squirrels Wood, Stockbury 44 **MNE**. Church Wood, Stockbury, PCH. Kingsdown, Fl K. (Thanet S[and]) Coxett Wood, 1945: 1962 **MNE**.

10) Bitchet Common. Lane SW of Ightham 1949 **MNE**.

11) Holt Wood, Aylesford, C. West. Oaken Wood. Warren Wood. Barming Woods 1961, EGP, **MNE**. Ryarsh Wood.

13) Stone Cross Gill, Ashurst 523388, 1960, CAS. Parsonage Lane / Ellis Wood, Lamberhurst 1944. Lane E of Bayham, 1942, JRW. Chiddingstone, CAS. Penshurst, CAS. Halls Hole Lane 1961, CAS. **14)** Mopesden Gill, Hawkhurst 1952 **MNE**.

L. sylvatica (Huds.) Gaudin

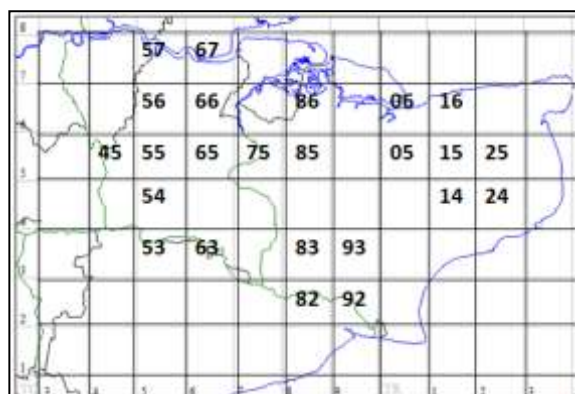
15, 16

25/52

[Great Wood-rush]

Native. Dry woodlands, mostly of sessile oak or beech associations, on sandy or gravelly soils, but usually in sheltered humid situations: widespread in wooded areas, but rather local with absences over certain parts:

frequent generally on the Eocene of 1), 3) and 6E), occasional and local on drifts over the chalk in 5), 6), 7) and 8). Common to abundant on the Lower Greensand of 10) and 11), scattered on the Hastings Sands of 13) and 14). Frequent in the High Weald and Greensand areas of Surrey and Sussex, rare and very local in Essex, very local in Pas de Calais and confined to the Wealden of the Boulonnais.



1) 57 Joydens Wood, 1946 **MNE**. 56 Farningham Wood! PCH.

56, 57

3) 06 Blean Wood, Hernhill. 05 Denstead Wood, Chartham 1950 **MNE**. 05 Gill in S. Bishopsden Wood 1960 **MNE**. Church Wood, SE part, RGW 1965. 05 Perry Wood. 16 Thornden Wood 1947. 15 Bigbery Wood 1954. Clowes Wood, 1965.

05, 06, 15, 16

5) 45 Wood 455594 S. of Cacketts Farm, Cudham, 1957 FR, 1961 F.M. Swain. New Years Wood, Cudham, 1961, 1962, F.M. Swain. 45 Wood N. of Cudham Grange, 1961, M. Swain.

6E) 57 Darenth Wood, 1947, PCH **MNE**. 67 Swanscombe Wood. 57 The Thrift. 66 Red Wood, Luddesdown, 1946, **MNE** on loam over chalk. 66 Cobham Great Wood. 67 Randell Wood, Shorne. 66 Holly Hill, J.B. Marshall.

66, 67

7) 86 Bredhurst Hurst. 86 Squirrels Wood, Stockbury, 1944. [Syndale Park: Rodmersham: Milstead, Fl K] Lords Wood.

86

8) Whitehill Wood, on sandy drift, 1966. W. side Covet Wood DACL. Garden Wood, Acrise, on loam, DACL. 14 West Wood, Stowting (Pliocene) 1959 **MNE**. 14 Uppe Harders Wood (Pliocene) 62. Woolwich Wood KDR,. 24 Lords Wood, Temple Ewell. Reinden Wood, BN 1959. 24 Wood S of Wootton, 235465, 1950 **MNE**. 24 Wood S. side Coombe Vale, Dove, JGD, 1955 **MNE**.

14, 82, 92

10) 45 Crockham Hill. 45. Ide Hill. 45 Goathurst Common S&S, RAC. 55 Everlands, 508518, RAC. 55 Bayleys Hill.

(g[reen]s[an]d), 45, 55

11) 65 Comp Woods. 65 Mereworth Woods. 75 Oaken Wood, Barming 1900 HL; 1945 **MNE**. 75 Oaken Wood, Ditton, 1946 **MNE**. 85 Kings Wood, Langley.

(g[reen]s[an]d), 65, 75, 85

12) unrecorded.

13) Stonewall Park, Chiddingstone. 54 South Park, Penshurst. 53 Hungershall Rocks 1947: '60 **MNE**. 63 Winbridge Lamberhurst 1944 **MNE**. Fishers Castle Rocks. 73 Old Park Wood. 63 Kilndown Wood. By drive, Tun[bridge] Wells 595400 CAS.

53, 54, 63, 73, 83, 93

14) 93 Finchbourne Wood. 93 Gill S. of Pigeon Hoo, Tenterden, 1962. 82 Gill N. of Wittersham. 92 Gill W0od, Owley, Wittersham 1954 **MNE**.

82, 92

[16] Aldington Common, FGEK.]

† *L. luzuloides* (Lam.) Dandy & Wilmott

[White Wood-rush]

Alien; status uncertain.

11) Maidstone, 1890 H. Lamb **MNE**.

L. campestris (L.) DC.

15, 16

50/51

[Field Wood-rush]

Native. Dry grassland, dunes and open places on heaths and in woods: very common throughout most of Kent but unrecorded recently for Thanet 9). Common in all adjacent counties and N. France.

1) R[oa]dside, Bickley. Hayes Common, 1945 **MNE**. Keston Common, PCH. Shooters Hill, GMB. Repository grounds, Woolwich, LRA 1934 **MNE**. Ruxley pits, S&S.

2) Dartford Heath 516728, 1961, HMR.

3) 123660 track Chelsfield HMW.

4) Sandwich Bay.

5) Leaves Green. Rushmore Hill, PCH. Pilots Wood, PCH.

6)E Darenth Wood, PCH. Lords Wood, Darenth, PCH. Holly Hill top, 668628, '62. Scalers Hill, Cobham, on Thanet S[and], HAS. Downs E of Shoreham PCH. Down SE of Meopham 1956 **MNE**. Great Wood, Cuxton, 1944 **MNE**.

8) SW of Lydden on downs DPY 53. Grass heath on Pliocene, Stelling Minnis, '62.

10) Knole Park.

- 11) Ryarsh Wood. Wrotham Heath. Ryarsh Roughetts. Comp Woods. Mereworth Woods. Clare Park, E. Malling.
 12) Hothfield Common. Ashford Warren.
 13) Stone Cross, Ashurst, 518381, CAS, 1960. Scotney, PCH. Southborough HNC.
 14) [Tenterden, J. Ridley 1908 **MNE.**] Woodchurch, ES.
 15) Romney Warren, fixed dune by R[oa]d, '62. NE of Littlestone ES.

L. multiflora (Retz.) Lejeune 15, 16 36/51 Heath Wood rush

Native. Dry open woods and heaths, usually on acid sandy or peaty soils: also in fens: widespread and locally common in such habitats. Common in Surrey and Sussex, more local in Essex and Pas de Calais. The two varieties of this species, var. *congesta* (DC.) Lej. and var. *multiflora*, have been recognised as species (see J. Buchaan, 1960, *Proc. Linn. Soc.* 171, pp126-128), but I have followed Dandy in regarding them as varieties. Their distribution, as far as it is known, is given below that of the aggregate.

- 1) 46 Keston Common, 1946 **MNE.** 57 Joydens Wood, PCH. 47 Abbey Wood, 1862 **MNE.** 36 W. Wickham Woods 1916 A.E.D. **MNE.** 47 Chislehurst Common 1954 **MNE.** 46 Holwood Park, 1954 **MNE.** 56 Farningham Wood. Sparrow Wood / Roundabout Wood, C.A. & F. Swain. 46 Hollows Wood, W. of Shoreham, 1945.
 36, 46, 47, 56, 57
 3) 16 Thornden Wood, 1945 **MNE.** 05 Hunstead Wood, Chartham Hatch, 1956 **MNE.** Bigberry Wood, 1954.
 05, 06, 15, 16
 4) 35 Hacklinge Fen, 1946. Ham Fen. 35
 6) 66 Darenth Wood.
 7) 96 Coxett Wood, Thanet Sand. '62. 86 Danaway Heath, 1957. Rodmersham Wood, Fl K. 96, 95, 86
 8) 14 West Wood, Stowting, **MNE**, 1956. Atchester Wood, B.N. 14
 10) 45 Toys Hill, HMP. 55 Oldbury Hill. Whitley Forest RAC. Westerham Wood 1962. 45, 55
 11) 66 Ryarsh Wood. 65 Wrotham Heath 1950 **MNE** 1956. 75 Penenden Heath 1944 **MNE.** 85 Sandway Bog Lenham 1955 **MNE.** 75 Maidstone (Sandling Wood) 1957 EGP **MNE.** Hoads Wood, 1946. 915405 Birch Wood Betersden '62. 66, 65, 75, 85
 12) 94 Hothfield Common, 1903, HL **MNE** →1953!**MNE.** 13 Gibbons Brook 1954 **MNE.** 04 Ashford Warren. Willesborough Lees. Mersham Hatch Park. 03 Ham Street Woods. Field SW of Sellindge Ch[urch] RAC. 94, 04, 03, 13
 13) 44 R[oa]dside bank above str[eam], Greybury... 438425, PCH '58. 54 Moorden, N. of Penshurst, 1944 **MNE.** 53 Stone Cross Gill, Ashurst, 518381, 1960, CAS. 54 Ashour Wood, Bidborough. 63 Tongs Wood, Lamberhurst. 63 Ellis Wood, Lamberhurst. 73 Combwell Wood. 83 Chittenden Wood. 73 Angley Wood 1955 **MNE.** 64 Pembury Woods. 74 Wood on T[unbridge] W[ells] S[and] NE of Curtisden Green 1958. 63 Timberlog Wood, JRW. 63 S. of Lindridge, JRW. 73 Bedgebury Woods, JRW. 73 Bedgebury pinetum 1954 T Tynan **MNE.** 53, 63, 73, 83, 44, 54, 64, 74
 14) 83 Knock Wood, Tenterden (Ash[down]. S[ands]) '62. Nr Penhill, 1947. 93, 92, 72
 15) Fen SE of Hamilton Fm, Denge Beach, 1954 **MNE.** 01

var. multiflora (**L. multiflora** (Tetz) Lejeune s.s.)

Buchanan (see above) found 2n=36 consistently in material which she regarded as this taxon from Glen Lyon, Perthshire.

- 1) Abbey Wood, H.L., 1862 **MNE.** West Wickham Woods AG Davis 1916 **MNE.** Chislehurst Common, 1945 **MNE.**
 3) Hunstead Wood, Chartham Hatch, 1956 **MNE.** Church Wood, SE part, RGW.
 4) Ham Ponds, 1957, B.N.
 8) The Roughs, Stowting, on sandy soil, 1956 **MNE.** Atchester Wood, BN. Whitehill Wood, L[owe]r Hardres, 1966.
 10) Ightham, 1899, H.L. **MNE.**
 11) Simpsons copse, Maidstone, 1850, **MNE.** Penenden Heath, 1944 **MNE.** Wrotham Heath, 1950 **MNE.** Sandway Bog, Lenham, 1965, B. Dodds.
 12) Hothfield Common, 1943, **MNE.**
 13) Bog W. of Mooren, Penshurst, 1944 **MNE.** Angley Wood, 1955 **MNE.**
 14) Church Wood, Wittersham 1964.
 15) Hoppen Pits, Denge Beach, 1954 **MNE.**

var. congesta (DC.) Lejeune (**L. congesta** (Thuill.) Lej.)

Plants of this taxon cultivated from Glen Lyon, Perthshire were found to have consistently $2n=48$ by Buchanan (see above), and she considers that on cytological grounds, as well as from biometrical morphological studies, this variety should be regarded as a good species. She measured morphological characteristics from over 1000 plants of the *campestris* – *multiflora* complex.

- 1) Keston Common, 1945, 1946 **MNE**. Holwood Park, 1954 **MNE**.
 3) Thornden Wood, 1945 **MNE**.
 7) Sandy loam of valley floor, Folmer Wood, 1962.
 8) Whitehill Wood, L[owe]r Hardres, 1966, on sand.
 11) Maidstone, 1890-, H.L. **MNE**. By Sandway Bog, Lenham, 1955, **MNE**.
 12) Hothfield Common, 1903, H.L. **MNE**; 1953 **MNE**. Willesborough Lees. Gibbons Brook, 1954 **MNE**.
 13) Tongs Wood, Lamberhurst. Timberley Wood, Lamberhurst, JRW, '41. Bedgebury Woods, JRW '41, 1954! **MNE**. Hawkenbury Bog CAS.

CYPERACEAE¹¹⁰

Eriophorum L.

E. angustifolium Honck. 15, 16 9/52 Common Cotton Grass

Native. Fens, valley bogs and wet heaths in acid (pH3-5) to calcareous (pH7.5) waters: also in artificial ponds and ditches: rare and scattered (only eleven localities), but plentiful at Hothfield, Gibbons Brook, Dungeness and Keston. Probably once common on the L[owe]r Greensand bogs. Still locally common and abundant in W. Surrey and in Sussex (High weald, and Greensand heaths in the west): rare in Essex and Pas de Calais where suitable habitats are few.

- 1) 46 Keston Bog 1916, AGD **MNE**; 1944-62! **MNE**. 46
 4) Ham Ponds, 1898, C.S. Nicholson Hb **LNHS**. Rare by Fen Ditch, E of Hacklinge, 1954: **MNE**. 26 E end of Stodmarsh, 1949, L.W.W. 35
 6E) 57 Old mineral R[ai]l[wa]y cutting, Swanscombe Wood, 1946-47 **MNE**, H.M.P. c.1960. 57
 11) 85 Sandway bog, Lenham, 1965, B. Dodds. 85
 12) 94 Hothfield Common, 1903, H. Lamb **MNE**; 1943-62! **MNE**; 1980 FR. [Mersham, 1907, D. Smith **MNE**; not there now.] 93 Pond, Birchett Wood, E.S., 1950. 13 Gibbons Brook, GW: 1945-54, **MNE**. 95, 94, 13
 13) 53 (vc 14) Hawkenbury Bog, J.R.W.; 1944-46! Cas; 1980 RP. 53
 15) 01 Hoppen Pits, Denge Beach, 1945-62 **MNE**. 01 Shingle pit, Marsh E. of school, Dungeness, 1962. 01

[*E. latifolium* Hoppe [15]

Calcareous marshes and open fens: now extinct.

- 12) Boggy meadow, Herringe, G.E. Smith, F.G.E.K.. Herringe, E. Kent, G.E. Smith, Ex Herb. Mrs Robinson Dec. 1847 **BM** (sp[ecimen] correct, teste P.C.H.). [Willesborough Lees, W.R. Jeffrey, doubtfully correct, the habitat is not very likely.

Not in any adjoining county. The Surrey record at Cernes, Lingfield is an error for *angustifolium*; it occurs, however, rarely, in Hants and Norfolk and Pas de Calais.]

[*E. vaginatum* L. (15 error), [16]

Extinct native: formerly in 13) Bog at Fishers Castle Tunbridge Wells W.W.R. in Fl. T.W; extinct by 1884, W.W.R..

Tunbridge Wells (W.W.R., **TLS**), probably from Fishers Castle, the bog is now merely a marshy field.

The Thanet records are undoubtedly errors (see Fl.K.). still locally frequent on wet heaths in w. Sussex and W. Surrey. Not recorded from Essex or Pas de Calais.]

Trichophorum Pers.

T. cespitosum (L.) Hartm. ssp. **germanicum** (Palla) Hegi [15], 16 1/51

Native. On wet-heath: extremely rare and probably extinct: confined now to the edge of the bog, Keston Common and last seen in 1962!, where only two plants still remained, not seen 1969: still common on the wet heaths of Ashdown Forest, rare elsewhere in E. Sussex: locally common on the wet heaths on Greensand and

¹¹⁰ In the manuscript this follows *Typha*.

Bagshot Sand in West Surrey and in W. Sussex. Extinct in Essex and Middlesex: still at one locality (wet-heath at St Josse, 1962!) in Pas de Calais.

1) Wet-heath by Keston bog, Keston Common, 1916 A.G.D. **MNE**; E. de C.; 1946-62! **MNE**; 7 clumps 1946; 2 in 1962; not seen in 1969.

[12] Willesborough Lees, CPSK; extinct

13) about Tunbridge Wells, Forster Fl. Tonbr.: extinct now on the Kent side; but it probably occurred formerly.] (The records at 2) Frindsbury, FGEK; 3) Hernhill, Stowell; 4) Thanet, Dr. Hunter; and Sandwich E.S.M. are certainly errors for another species. The Sandwich record of Marshall probably relates to *E[leocharis]. quinqueflora*: these two have been confused in the past by excellent botanists.)

Eleocharis R. Br.¹¹¹

E. palustris (L.) Roem. & Schult.

15, 16

/51

[Common Spike-rush]

subsp. palustris

Native. Ponds, ditches and swamps, usually on inorganic mud or silt, in weakly acid to calcareous water. Very common in all suitable habitats throughout the county, but unrecorded from the chalk districts 5) – 9). Common in Surrey, Sussex, Essex, and Pas de Calais.

1) 37 Beckenham Place, pond, PCH. V 47 SW pond, Chislehurst Common, 1945 **MNE**. Ravensbourne, Bromley, AG Davis, 1919 **MNE**. Ruxley pits! S&S.

2) 47 Erith Marshes, PCH. 87 Dike, All Hallows, AGS. 96 Conyer, KDR. 95 Luddenham Marshes. 67 Northfleet. 57 Swanscombe. 67 Chalk. 77 Higham. 77 Cliffe. 76 Upnor. 76 Cuxton. 76 Halling. 76 Holborough Marshes. 76 S. of Snodland. 75 Aylesford. 06 Faversham Creek, Miss V. Day, 1957 **MNE** and ES.

4) Dike, 225661, Marshside, Chislet, '62. Wenderton Meadows, BN. Dike, 271692, N. of Stuart, St Nicholas, '62. Stodmarsh, REW. 36 Minster Marshes, 1964.

10) Pond, Wilderness Park, Seal.

11) Leybourne. R. Len, Bearsted, EGP, 1958 **MNE**. Yalding, H. Lamb 1897 **MNE**. 54 Tonbridge. 64 Pond S of Hale Street CAS. 84 Pond ¼ m SE of Marden, 62, 879417.

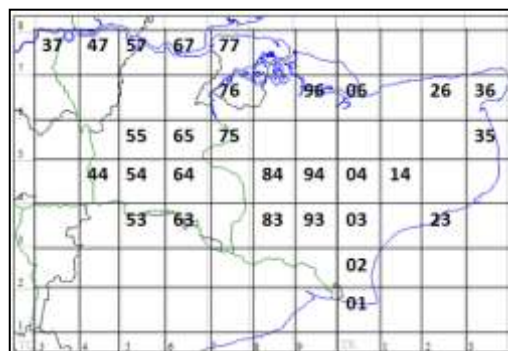
12) 94 Hothfield, H. Lamb, 1903 **MNE**. 14 Stowting Marsh, 1954 **MNE**. 94 WestWell pond by W[ater] W[orks], ES. 93 Scotts Pond 986395 ES. 03 S. of Water Fm, Sellindge (W. of) 082387, RAC.

13) 44 Hever, marsh S. of Church, 1953 **MNE**. 54 Moorden, Penshurst. 53 Brighton Lake, Tunbridge Wells Common, 1960, CAS. 83 R[oa]dside pond E of Cranbrook DS. 63 Court Lodge pond, Lamberhurst, 1941, JRW. 53 Dunorlan Lake T[unbridge] W[ells], CAS.

14) 73 Pond S. of Cranbrook (Hartley).

15) 02 Brenzett. 01 Hoppen Pits, Dungeness 1959 **MNE**. 93 Shirley Moat Pond ES. 93 Kenardington, R[oyal] M[ilitary] C[anal] dikes, Lr. Br., ES. Shirley Moor, Dike N of B.2080, 1965.

16) 23 Darnley Vale, Cheriton, 1955 **MNE**.



subsp. microcarpa Walters¹¹²

Native. Brackish to calcareous meadows, often with *E. uniglumis*: apparently rare, but readily overlooked among *E. uniglumis* which it resembles superficially; it can be distinguished by the two sterile basal glumes to the spikelet: *uniglumis* has only one.

2) Higham Marshes, 1944-49, det. S.M.W. Cooling Marshes, 1944, **MNE** det. SMW. Graveney Marshes, P.R.B., 1946 **MNE**, det. SMW; SMW **BM**.

4) Stodmarsh, 1955 **MNE** det. SMW.

10) Meadow N. of Shoreham, 1955 **MNE**, det. SMW.

11) Birling Marshes, 1944, **MNE**, det. SMW.

77, 06, 26, 56, 66

E. multicaulis (Sm.) Sm.

15, 16

3[4]/51

Native. Pools of valley bogs and swamps, always in fairly acid waters (pH 4.5-5.5); very rare. In only three localities for certain now. Locally common in bogs in west Surrey, and in the High Weald and Greensand heath areas of Sussex: extinct on Essex: very rare (2 localities now) in Pas de Calais.

¹¹¹ In the manuscript, *Eleocharis* follows *Eleogiton*. Also the species are ordered differently from Stace edn.2 as adopted here.

¹¹² This is currently treated as a synonym of subsp. *palustris*.

1) 46 Keston Common, Fl.K., 1963!

12) (vc15) 94 Hothfield Common, Fl.K., in three valley bogs, 1944-63! abundant **MNE**.

13) (vc14) 53 Hawkenbury Bog, JRW 1941; 1944-46! **MNE**. (vc16) 73 Bog around Louise Lake, Bedebugry Forest, 1943, JRW; 1945-51, abundant! **MNE**.

(Other records for coastal or estuarine habitats in Fl. K. (Greenhithe JSM, Hb **JSM**; Oare Creek; Faversham Brooks, Fl. Fav.; Ham Marshes, Stowell, *Phyt. N.S. II*, p.181) probably refer to *E. uniglumis*.)

[*E. quinqueflora* (F.X. Hartmann) Schwarz [15]

Open base-rich fens and mires among short vegetation; formerly very rare, and apparently now extinct: no record since Fl. K.

4) Ham Ponds, Dillwyn, Fl. Brit; FGEK. Marsh 1 mile N. of Sandwich E.S.M. (as [S.] *caespitosus*, but almost certainly this.)

15) Dungeness, 1875, F.J.H.; Fl.K.]

(Reported at Keston by W. Griffin, 1903, *Woolwich Surveys* – probably *S. caespitosus* or *E. multicaulis* was intended.)

Still existed in Surrey (Bisley!) at least to 1951; extinct in Sussex; still plentiful in a fen (Cucq!) in Pas de Calais.

E. acicularis (L.) Roem. & Schult.

16

1/52

Native. On the gravelly bed and shores of a fresh water pond: extremely rare. Rare but widespread in Surrey, and Sussex, very rare in Essex: rare and sublittoral in Pas de Calais.

(1) reported by pond on Chislehurst Common by HMP, unconfirmed.)

11) 64 Abundant in and around pond on gravel, 1m E. of Hale Street, E. Peckham, 1954-1962 **MNE**.

E. uniglumis (Link.) Schult.

15, 16

12/51

[Slender Spike-rush]

Native. Somewhat brackish alluvial meadows in estuaries, and calcareous fen-meadows inland in short vegetation: rare but locally abundant in the Thames-Medway estuary in 2), more frequent in the Stour fen areas in 4): very rare elsewhere inland in 1), 6), 10), and 12): and formerly at least in 15). Very rare in Sussex, not recorded in Essex; rare in East Anglia and Pas de Calais in similar locations.

1) Marsh in Meadow N. of Fooks Cray, 1955, GMB and FR, **MNE**.

51/47 Bexley

2) Northfleet Brooks, 1944. 67 Shorne Marshes. 77 Higham Marshes, 1944, **MNE** 1949. 76 Holborough Marshes, 1944 **MNE** 1949. 76 S. of Snodland, 1944.

51/67 Gravesend, 51/77 Higham, 51/76 Roch[ester].

06 Ditches near "Sportsmen", Seasalter, PRB and SMW, 1946 **MNE**, **BM**.

4) 35 Hacklinge Marshes, 1946 **MNE**, 1956 **MNE**. 35 Deal Sandhills / Ham Ponds, Duthie. 25 1m N. of Wingham, in relic of fen, 1947, **MNE**. 25 ½ m N. of Wingham 1956 **MNE**. 25 Fen SE of Wingham, 1949 **MNE**. 16 Westbere Marshes. 26 Stodmarsh. W of Minnis Bay in Damp meadow BN 1958. 26 Plucks Gutter, 1953 **MNE**, 1955 **MNE**. 35 Worth Minnis 1960 **MNE**. 36 Minster Marshes, 1958, BN.

61/25 Wingham, 61/35 Sandwich, 61/06 Fav[ersham], 61/16 Whit[stable], 61/26 Chislet, 61/36 Thanet E..

6) Swampy chalk pit SW of Cliffe, 1963.

10) 56 Water-Meadow N. of Shoreham, 1954 **MNE**.

51/56

12) 94 Meadow S. of Brabourne Church, 1954 **MNE**.

94

15) Denge Marsh, 1861, Hb. **J.S. Mill**.

Bolboschoenus (Asch.) Palla¹¹³

B. maritimus

15, 16

27/51

[Sea Club-rush]

Native. Brackish or saline marshes and fleets, dikes (usually brackish or saline) of alluvial flats, upper tidal river banks; abundant and fully distributed in these habitats in 2), 4) and 15); rare on the coast of 3) and 8); very rare in inland ponds, as in 11) (Harrietsham). Very rare in inland ponds in Surrey: common in the Sussex and Essex coastal marshes and in the estuaries of Pas de Calais.

2) 47 Plumstead Marshes, 1944. 57 Dartford Marshes 1930 PHC; 1962. 57 Stone Marshes 1938 PHC: 1945. 57 Swanscombe Marshes 1933 PHC; 1946. 67 Northfleet. 67 Denton. 67 Chalk. 67 Shorne. 77 Higham '44. 77 Cliffe HL 1898 **MNE**; 1950. 77 Cooling. 76 Wouldham. 76 above Burham Ch[urch]. 76 Halling. 76 Holborough Marshes. 76 S. of Snodland 1894 HL **MNE**; 1943. 76 Aylesford. 77 High Halstow. 87 St Mary Hoo. 87 All Hallows. 87 Grain. 87 L[owe]r Stoke 1959 **MNE**. 77 S. of Hoo. 77 Upnor, meadow SW of. 06 Harty Marshes. 96 Elmley. 96 Kings Ferry. 07 Leysdown. 06 Shellness, ditches. 97 Minster Marshes. 86 Brackish fleets, Chetney Marshes, 1962. 96 Conyer Creek. 06 Oare Creek and Meadow. 06 Ditches by Faversham Creek. 06

¹¹³ Given as *Scirpus* L. in the manuscript., which genus accordingly begins with *B. maritimus* named as *Scirpus maritimus* L.

Graveney. 06 Seasalter. 96 S. of East Church, 1918 AGD **MNE**. 06 Near Harty Church. Luddenham Marshes, HMW. 47, 57, 67, 75, 76, 86, 96, 06, 77, 87, 97, 07

3) 16 Swalecliffe. Ditch 102660, W. Of Whitstable, HMW. R[oa]dside pond SE of Blean, '56 CAS. 16

4) 35 N. of Sandwich. 36 Pegwell Bay. 35 Slacks of Dunes N. of Deal. 36 Marshy slacks of dunes N. of Sandwich Bay. 36 Minster Marahes, 1963. 26 Brackish dikes N. of Stuart, St Nicholas, 271693 to 270686, '62. Grove, PWW. 26 Marshside, Chislet, 225661, '62. W of Minnis Bay, HMW. 26, 36, 15, 35

6) Chalk pit SW of Cliffe, 1963.

8) 23 Lagoon behind beach below Abbots Cliff. 23

11) 85 Pond, Harrietsham, 1958, EG Philp **MNE**. 85

12) 04 04

15) 93 Shirley Moor, 1942, JHL **MNE**. S of Wittersham. New Romney, Ch[urch] Lane, RAC. Dymchurch. South Brooks. Wicks. 82, 92, 93, 03, 13, 01, 02

Scirpus L.

S. sylvaticus L. 15, 16 31/51 [Wood Club-rush]

Native. Springs, swamps and flushes in woods, usually of alder: common in the High Weald in 13) and the western part of 14), and frequent in alder carrs on the greensand spring lines in q19), 11), 12) and 16; a few localities on the tertiaries in 1) and 3), and rare near the tidal Medway in 2); in one place in 4). Common in Surrey and Sussex, principally on the Weald; uncommon in Essex, very local in Pas de Calais.

1) Spring park Wood, W. Wickham, 1926, JEL, Hb L. A[bundant], by Ravensbourne, N of "Crown Inn" W of Locks Bottom, 1957, F. Swain. 36, 46

2) 66 Birling Marshes. 76 S. of Snodland. 76 W. of Burham. 76

3) 06 Cope W of Waystreet Fm, Hernhill, 1955 **MNE**. 05 S. part of Fishponds Wood, Charlton, Miss B. Nash, 1958 **MNE** at 097581 near R[oa]d. 16 Convicts and Longtye Woods by str[eam] S. of South Street REW, 1960 HMW. 15 Stream at Tyler Hill, RGW. Calcott Bridge, Sturry, 1955, RGW. 06, 16, 05, 15

4) 26, 35

10) 45 Near Source of Darent, W. of Westerham, GMB, 1954. 45 1 mile E. of Westerham, 1955 **MNE**. 56, 45, 55

11) 65 Leybourne Lakes, 1944. 75 Wood E of Bearsted, 1943 **MNE**. 75 Teston. 64 Below Tonbridge by Medway, 1961. 94 Pluckley. 75 Sandling Wood, 1939, EGP **MNE**. 85 Swamp, Fairbourne Lane, Harrietsham Mrs B Dodds. 66 Ryarsh Wood. 65 Mereworth, S of Village (abundant on Atherfield Clay). 54 Straight Mile, Leigh. 55 Underriver. New H[ou]s[e] Fm, Pluckley VFPD. Bobhurst Fm, Frittenden, RAC. 65 SW of Wateringbury. 55 W. of Shipbourne. Medway, Poundsbridge, RGS '68. 66, 75, 85, 65, 74, 84

12) 94 Hothfield Mill! alder carr BN. 04 Cadmans Wood 1946. Smeeth. 04 Hinxhill, Oastley, 053423 ES. 94 N. of Yonse mill 991455. 14 Chalk springs, Stowting, 1944. 93 N. of Ham Street 997343 by B.2070. 05 Cudham, 1945. 04 Bybrook, 015441, ES. 94, 04, 14, 93, 03

13) 63 Pond near Ellis Wood, Lamberhurst 1937, JRW. 63 Pond near Bayham Chapel, 1940 JRW; CAS. Bayham CAS. 73 Alder Carr W. of Folly Hill, Colliers Green, 1962. 73 Angley Wood. 83. 44 W. of Chiddingstone. 53 Stone Cross Gill, Ashurst 518381, 1960, CAS. Pounds Bridge, Speldhurst 1963 CAS. 73 By lake, Pinetum, Bedgebury, 1962. 64 E of Moorden, N. of Penshurst, 1949 **MNE**. T[unbridge] Wells, WWR **TLS**. 54 Penshurst Park. Pentecost[?] field, Southborough, HNC. Boggy Wood, South Park, Penshurst, 1962. 63 Boggy c.... SW of Pembury 614395 PCH. High Rocks Lane, 1959, R.E. Shorrocks. Shadwell Wood, Speldhurst, GE Shaw. 54, 64, 44, 53,

63, 73, 83

14) Hawkhurst. 92

16) 13 Stream by Westenhangar Castle. 13

Schoenoplectus (Rchb.) Palla¹¹⁴

[S. triqueter (L.) Palla [15], [16] [Triangular Club-rush]

Former native, now extinct, on the Medway above and below Aylesford on the tidal mud-banks. Probably now extinct too on the tidal Thames in Surrey and Middlesex: there are no recent reports of it either from the Arun in W. Sussex.

2) Medway, Aylesford, 1924, Ex Herb T.J. Foggitt **BM**; R[ight] bank of Medway, above Bridge, Aylesford 1934, JPMB; 1939, J.E.L.; not refound, 1942-62! Apparently destroyed by dredging of the river channel, or possibly by pollution: its hybrid with *tabernaemontani*, however, still survives (see below).

¹¹⁴ Treated as *Scirpus* in the manuscript; hence *S. triqueter* given as *S. triquetrus* L.]

4) Mouth of R. Stour, Sandwich Bay, 1932 – “very few plants – no leaves, stem triangular; ex Herb. Col. R. Meinertzhagen **BM** teste PCH.

S. lacustris (L.) Palla¹¹⁵ 15, 16 17/51 [Common Club-rush]

Native. Margins of rivers and lakes in base-rich water; very local; almost confined to the freshwater Medway and Stour and their main tributaries but frequent along these rivers in 11) and 12); rare elsewhere in a few isolated localities in lakes, ponds and ditches in 1), 4) 10), 13) and 14)¹¹⁶; in tidal waters and in alluvial coastal flats it is replaced by *S. tabernaemontani*.

*Bronze Age: Crossness, fruit, Spurrell 1889, Reid 1899.

- 1) Pond, Hawkwood Lane Chislehurst, G.M.B. 1958. 47
 4) Hacklinge marshes, 1961, Miss B. Nash. 35
 10) Bradbourne Gravel Pits, F.S.E.F., 1957. 55
 11) 75 Lake, Mote Park, Maidstone, 1958, E.G. Philp **MNE**. 85 Leeds Castle Lake, 1959 **MNE**. 54 R. Eden, Chiddingstone. R. Nedway. R. Beult, S of Linton / Yalding. 54 W. of Penshurst. Wateringbury. Teston. E. Farleigh. Beult S of Headcorn Ch[urch], 831440, 1962. R. Beult, Hunton, 1954 **MNE**. 65, 75, 85, 44, 54, 64, 74, 84
 12) R. Stour: Hothfield, 1905, D. Smith **MNE**; Eyegate Mill, Smeeth, 1946 **MNE**, 1950 **MNE**; Mersham le Hatch E Lake, RAC. Chartham. Chilham Castle Lake, RAC. N. of Wye. 94, 04, 05, 03, 73, 83

S. tabernaemontani (C.C. Gmel.) Palla¹¹⁷ 21/51 [Grey Club-rush]

Native. Tidal river banks, dikes and fleets, usually brackish, of alluvial coastal or estuarine flats: local; well distributed and fairly common in 2), 4) and 15); also in freshwater lakes on Denge Beach in 15), and very rarely, in inland ponds. Frequent locally in inland freshwater ponds in Surrey.

- 1) Ruxley pits, S&S, to 1965.
 2) 57 Crayford Ness, 1951, JEL, etc. 67 Northfleet. 57 Dartford Marshes, behind River Wall '62. 76 Snodland Marshes 1944 **MNE**. 75 By Medway, R[ight] B[ank] Ayleford. 75 Right bank, New Hythe, 1950 **MNE**. 76. 77 Cliffe. 87 Grain, 805790 All Hallows, AGS. Conyer, KDR. Dike near Oare Creek, 1957 **MNE**. Pits E of Oare Creek. Luddenham Marshes HMW. Ham Marshes REW. Ditches by Faversham Creek ES. 96 Elmley. 06 Harty. Below Rainham OD. 86, 96, 06, 57, 67, 87, 75, 76, 77
 4) E. of Sandwich 1945 **MNE**. N. of Sandwich. Hacklinge 1946 **MNE**. N. of Deal. W. of Minnis Bay, Mrs B. Dodds. Wingham Fen (Lit[t]le Britton). Brooks End, Birchington, LWW; BN. E. of Reculver. N. of Stuart, 270686 1962. N. of St Nicholas 1962. 36 Minster Marshes, 1963. Preston Marshes. Stodmarsh, RBW; PWW. E. Stourmouth, J.O. Chislet Marshes MEM. 25, 35, 26, 36
 6)E) 71 Pond, Northward Hill, High Halstow 1958 **MNE**. Wet chalk pit SW of Cliffe 1963. Chalk pit, Swanscombe, H.A.S., det. JEL.
 11) 44 Ditch in field, Hever, 1933, J.E.L. (Hb. JEL). 44
 15) 93 Shirley Moor, ES. Snargate. Brenzett. S. of Ham Street. Dikes E of Appledore, 1954 **MNE**. Hoppen Pits, Denge Beach, 1946 **MNE**. Ditches to W. Palmarsh gravel pits LJM. 92, 82, 01, 02, 03, 93, 13

S. tabernaemontani x triqueter = S. x kuekenthalianus (Junge) D.H. Kent¹¹⁸ 15, [16] 1/51

Native. This hybrid still persists on the tidal Medway although one of its parents, *S. triqueter*, seems to have gone. It also occurs still on the Arun in W. Sussex and on the Tamar on the Devon-Cornwall border, but appears to be extinct in Surrey and Middlesex on the Thames.

- 2) R[ight] bank of Medway, ¼ m above Aylesford, 1942-45 **MNE**. By the Friars, Aylesford, 1946 **MNE**. Tidal creek of Medway, opposite New Hythe, 1948-53 **MNE**. Only seen by me on the right bank – i.e. in V.C.15.

Isolepis R. Br.

I. setacea (L.) R.Br. 15, 16 21/51 [Bristle Club-rush]

Native. In bare, most places, such as pond borders, track ruts, ditch-sides, and meadows, often on peaty or sandy soils, both acid and calcareous: widespread, but only locally common [in] 1), 12), 13); rare in 2), 3), 4)

¹¹⁵ Treated as *Scirpus* in the manuscript; hence *S. lacustris* given as *S. lacustris* L.

¹¹⁶ There is a marginal note in the manuscript: 'single localities occur in the Darent near Sevenoaks, in 10), 13) – Cranbrook?, 14) – Breeches Pond, and in 4), in 1).

¹¹⁷ Treated as *Scirpus* in the manuscript; hence *S. tabernaemontani* given as *S. I. tabernaemontani* C.C. Gmel.

¹¹⁸ Treated as *Scirpus* in the manuscript; hence hybrid given as *S. tabernaemontani x triqueter = S. x kuekenthalianus* (Junge).

10), 11) and 15), unrecorded from 5) – 9), 14), 16). Rather common in Sussex in the Weald, locally so in Surrey, rare in Essex; and in Pas de Calais.

- 1) 57 Joydens Wood, in track ruts, 1954, PCH & FR **MNE**. 46 Petts Wood, G.M.B. 46 Edge of Keston Lower Pond, PCH; JBM 1955. 46 Ravensbourne Estate, Keston, by stream, 1955 **MNE**. 46 Holwood Park, D.McC. 47 Chislehurst Common, 1915, WCRW. 46 Derrack¹¹⁹ Wood Orpington, 1921, WCWR. Roundabout Wood, FM Swain. 46, 56, 47, 57
- 2) 76 Snodland S. Marshes, 1946. 76
- 3) 15 Church Wood, Blean, LWW & RGW, 1950, v[ery] a[bundant] 1965, on field to E, RGW. 15
- 4) 35 Hacklinge, 1946, **MNE**. 35 Worth Minnis, 1960, **MNE**. Preston Marshes, SW of Ch[urch] on sandy soil '53 BN. Pit SE of Ham Fen, 1991. 35, 26
- 6) Wet chalk pit, SW of Cliffe, 1963. 77
- 10) 55 Bradbourne Gravel Pits, FSEF, 1957. 55
- 11) 35 Sandway bog, Lenham 1954 **MNE**. 65 Leybourne Castle Lakes, on sandy shore, 1955-58 **MNE**; 1960, EGP **MNE**. 74 Ride, Widehurst Wood, Marden, 1958 **MNE**. 85, 65, 74
- 12) 94 Hothfield Common, 1944-47 **MNE**. 14 Stowting fen-meadows, 1946-54 **MNE**. Cuckolds coomb, 1986; 1995! 13 Monks Horton, boggy field, 1953 **MNE**. 94 Warren Woods, Ashford, 1955 **MNE**. 13, 14, 94
- 13) 53 Brighton Lake, Tun[bridge] Wells, 1960, CAS. 64 Pembury Woods in ride, 1952 **MNE**. 63 W. part of G[rea]t Sandhurst Wood (Durdle Wood), Lamberhurst 1943, JRW; 1944-. 63 Lamberhurst Quarter, 1946 **MNE**. 73 Oaks Wood, Cranbrook 1944. 73 Angley Wood, Cranbrook 1946. 83 Chittenden Wood, Cranbrook, 1943 JRW. 83 Causton Wood, 1946 **MNE**. 54 E of Moorden, N of Penshurst, in boggy wood, 1949 **MNE**. Whortleberry Wood, Southborough HNC. 73 Combwell Wood, 1945. 83 Sissinghurst Park Wood. 73 Bedgebury Forest. Tun[bridge] Wells WWR **TLS**. 648365 by Pond, Bayham, Sussex, CAS. 53, 63, 83, 54, 64
- 15) 02 Romney Warren, abund[ant]. 02
- 16) Saltwood, NE of, in flush on slope (F[olkestone] Sand) 1959 EA Swain. The Luce 1945- **MNE**, 1986.

(*I. cernua* (Vahl.) Roem. & Schult.¹²⁰ Formerly occurred in Surrey (Wimbledon Common), and may yet exist in littoral marshes in Pas de Calais.)

Eleogiton [Link]

- E. fluitans** (L.) Link 15, 16 7/51 [Floating Club-rush]
 Native. Ponds, lakes, streamlets and flushes, in peaty acid water; rare. In 1), 11), 12) and 13 sparsely: 8 localities. Commoner but still local in similar places in Surrey and Sussex, rare in Essex (Epping), very rare in Pas de Calais (Helfaut! St Josse!).
- 1) 46 Keston Common Ponds, A.G. Davis, 1915 **MNE**; 1945! 1950. Lake, Holwood Park, A.W. Jones, 1954.
- 11) 55 Ponds, Rose Wood, Ightham, 1944. 54 Pond Dry Hill Rd Tonbr[idge], 589474, CAS, '55. 64 Pembury Woods, 1953. [Tunbridge Wells, WWR **TLS**.]
- [12] Brabourne Lees, FGEK.] 93 Pond in field opp[osite] Spot House, Warehorne, 976353, 1955, ES. (63 Free Heath, in Pond, JRW, 1940 (vc14))
- 13) 73 Louisa Lake, Bedgebury Forest, 1945. Bedgebury Pinetum 1962. 73 Angley Wood, 1947.
- 15) Marsh Dike, Appledore, 93Q.¹²¹

Blysmus Panz. [ex Schult.]

- B. compressus** (L.) Panz. ex Link 4 or 5/51 [Flat-sedge]
 Native. Calcareous fens and wet meadows, in short vegetation; very rare, but abundant in its habitats. A species of *Parvocaricetum* associations in flushed calcareous mires and marshes. It was probably once more widespread in the E. Kent fen areas and in flushed turf communities by chalk and ragstone springs. Probably extinct in Surrey; very rare in Essex. Very rare in Sussex, but in at least two localities by chalk springs (Aldworth and Kingstone-next-Lewes). Rare in Pas de Calais in similar places.
- 1) Bexley, E.M.H. – probably = 47 Meadows N. of Foots Cray, in wet hollows of former stream bed, 1955, **MNE**, abundant, G.M.B. and F.R. 47
- 4) Fen-meadows, Hacklinge, OBG: abundant, JPMB: 1946, FR and DMcC, **MNE**. 35

¹¹⁹ Presumably Derrick, although the handwriting is clear.

¹²⁰ Given in manuscript as *S. cernuus* Vahl., even though *Isolepis* has otherwise been used instead of *Scirpus*. Francis Rose missed the presence of this species in the Hacklinge area (found in 2003), despite his study of the Eadt Kent fens and subsequent visits.

¹²¹ A marginal note lists as follows: Keston 51/46; Tonbr[idge] 1955, 51/54; Woodch[urch] sq[ua]re 1956, 51/93; S[even]oaks 51/55; Cranbrook 51/73; Lamberhurst 51/63; Pembury 51/64.

12) 04 Calcareous flush meadows by chalk stream, Cuckoldscoomb, Brook, FGRK: 1946-54 **MNE**, not found 1986. 14 Fen-meadows, Stowting, FGEK; F.J.H. (Fl. K.): not refound here, though habitat was still quite suitable in 1954 **04, (14)**

16) Darnley Vale, Coolinge Folkestone, in flush fen meadow fed from calcareous L[owe]r Greensand, 1955, **MNE**.

"Salt Marshes, Kent" ex Herb. (G.) Francis, **BM**. "Bogs, Kent", Herb. Roem. (er) **BM**.

(Several records quoted for this in Fl. K. are probably errors for *Carex divisa* or *C. disticha*: Thames below Woolwich; Brents, Faversham; Luddenham; Seasalter.)

Cyperus L.

C. longus L. 15 1 or 2 / 51 Galingale

Native. Calcareous marshes near the S.E. coast, extremely rare, and possibly extinct in one of its two localities, though persisting in the other. A species of S.W. distribution in Britain and Europe, not otherwise known nearer than S. Hants and the Isle of Wight.

8) 35 Roadside Bank (by the course of a former stream from chalk springs), near station, Walmer, Miss B. Nash: 1958! **MNE**. 1958! 1962 C.A. Lister. Probably a survival of a very different former habitat here. **35**

16) 13 Whitenbrooks Wood, Seabrook, near Hythe 1973¹²² (peaty calcareous carr on Sandgate Beds) G.E. Smith, C.P.S.K.: **BM**. Ed. Forster **BM**, also Hb. **J. Storey**: the habitat is unchanged, except that it is overgrown, and a large cyperaceous species, which could be *C. longus*, still exists here, but never produces inflorescences. **13**

As an alien, it occurs at:

10) "Westerham", 1952, Mrs L.P. Small.

11) Wet field, Hever, E.C.W., B.E.C. (1933) p.547.

14) Pond by Hawkhurst Old Ch[urch], 1956, P.C.H.

(**C. fuscus L.** occurs by a muddy pond at Shalford, Surrey, and at Staines, Middlesex, and has old records for pas de Calais, Nord, and Somme.)

†C. declinatus Moench

1) Gravel pit, Hayes, St.J.M., BEC Rep. 1926, p.138.

(**Schoenus L.**

S. nigricans L. (15) [Black Bog-rush]

Reported at

4) "Boggy Places", Fl. Thanet 1847, p.60; and

16) "Near Folkestone [...], plenty", W. Pamplin in Irvine's *London Flora*, 1838, P88: but there is no other evidence: some other sedge may have been found, though Pamplin is unlikely to have been mistaken. It may have occurred on the Warren at Folkestone and have been destroyed by coast erosion. It occurs in flushed valley bogs S of Bagshot, Surrey, but not in Sussex or Essex: it is, however, abundant in dune slacks and sublittoral fens in Pas de Calais.)

Rhynchospora Vahl

[**R. alba (L.) Vahl** 16 [White Beak-sedge]

Former native, now extinct; in *sphagnetum* of a valley bog. Still plentiful in Ashdown Forest, E. Sussex, and on the bogs of W. Surrey; and in one locality still (St. Josse!) in Pas de Calais.

13) (near Tonbridge, Ray, *Synopsis*, ed. 3, p.427: in Sussex?) Bog near Mr. Slopers, towards Tonbridge, Forster, *Fl. Tonbrigensis*, p.6. This record appears certainly to have referred to a site in Kent.]

(**R. fusca (L.) Ait. f.** occurs plentifully in bogs at Thursley, Surrey, but not in any other adjoining county in Kent. It also occurred in wet-heath at one place (St. Josse!) in Pas de Calais until c.1980.)

Cladium Browne

C. mariscus (L.) Pohl 15 **Saw Sedge** 2/52

Native. In two base-rich fens: very rare, but locally dominant. Unrecorded as a native from Surrey, Sussex, or Essex; but plentiful in the fens behind the coastline of Pas de Calais and Somme.

¹²² Likely to be in error for TR17935.

4) 35 Ham Ponds, OBG, 1802; CPSK; 1946-62! **MNE**, 1991! Locally dominant in patches, over about three acres of rough fen. Its remains occur at a considerable depth. In the peat of this ancient fen. This colony is the last relic of a species formerly widespread in the fens between Deal and Sandwich.

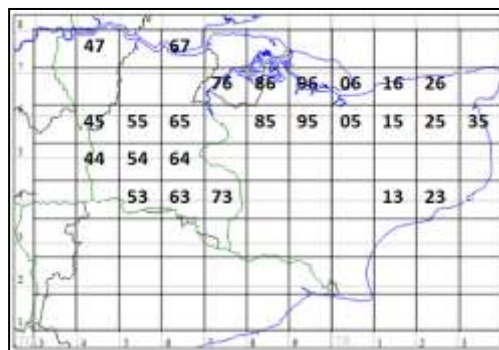
15) 01 Fen in natural shingle pit, S.E. of Hamilton Fm., Dungeness, F. Swain, 1951; 1952-62! One patch about 20metres across, **MNE**, c.50m across 1997!

35, 01

Carex L.¹²³

C. paniculata L. 15, 16 27/51
[Greater Tussock Sedge]

Native. Fens and Fen carr, Valley Alder carrs, Pond borders, in alkaline to weakly acid waters; widespread; locally common in the High Weald in 13), the Greensand of 10)-12) and 16), and the fen areas of 4); rare on the Tertiaries of 3).



1) Ruxley pits, S&S. E side R[iver], N. Cray, GMB.

51/47 Bexley

2) 67 Northfleet Brooks, abundant in fen, 1944; 1958, PCH. Wet Wood on W edge of Snodland Marshes. 857669, small fen S. of L[owe]r Halstow, 1962. 96 Swamp carr by Pond, Tonge.

51/67

Northfleet; 51/76 Medway; 51/86 L[owe]r Halstow; 51/96 Teynham; 61/06 Fav[ersham] '56, '55; 61/95 Chilham '55; 61/15 C[anter]bury

4) Roke of Fen, N. of Wingham. Preston Marshes, 1962. Wenderton copses, BN. Ham Fen, 1946-62, abundant in several places. Hacklinge Fen, 1945 **MNE**. 15 Fordwich Marshes, 1949 **MNE**. Sturry Marshes, REW. W of Brooksend, IWW. Stodmarsh, REW.

61/25 W[ing]ham; 61/35 S[and]wich; 61/16 Fordwich; 61/26 Preston

6E) Randall Wood, Shorne, by Pond, 1954 **MNE**.

51/45 W[ester]ham; 51/55 S[even]oaks

10) The Moors, Bat and Ball, 530575 CAS. 45 Westerham, by R. Darent.

11) 65 Marshy Wood SW of Mereworth. By Medway, S. of Station, Leigh, 1942, JRW. 85 Goddington, Harrietsham, BD.

51/65 W[est] M[alling]; 51/75 M[aid]stone; 51/85 Ha[rrietsham]

12) 94 Hothfield Common, in valley swamp at N. side of Common, 1943-62 **MNE**. 13 Gibbons Brook. 05 Near Stour, Chilham, 1945. 94 Carr N. of Hothfield Mill, N. of A.20, 1947. 94 E end Hothfield Lake, REW. 94 Charing Heath, alder carr, ES. 94 By Shoddington, W.W., Westwell, ES, 997463.

51/94; 61/04; 61/15 Hythe

13) 44 Scarletts Pond, Cowden. 54 Roundabout Wood, Tun[bridge] Wells, 1943, JRW; CAS. 64 Cinderhill Wood, in alder carr, 1953. 73 Bedgebury Park. 73 Bedgebury Pinetum. 73 Louise Lake, Bedgebury. 73 Frizley Bog, Cranbrook. 73 Swamp, Tuckers Pond, Angley Wood, 1945-61. 73 Kilndown Wood, 1946. 64 Corks Pond, Brenchley, WHP. 73 Horsmonden Mill Pond, 1939, JRW. 63 Scotney Castle, 1939, JRW; 1956 PCH and KEB. 53 Tun[bridge] Wells.

51/44 Edenbr[idge]; 51/54

Tonbr[idge]; 61/64 Br[enchley]; 51/53 T[unbridge] W[ells], 56; 51/63 L[amber]hurst; 51/73 C[ran]brook

14)

not 51/83; not 51/93

15)

NOT 61/01 Dungeness

16) Pond Sandling Park DACL. Newington Moor, 1945-54. Darnley Vale, SW of Cheriton, 1955 **MNE**. Brockhill Park, Saltwood, '62, DACL.

61/23 F[olke]stone

C. paniculata x remota = **C. x boenninghausiana** Weihe 15, 16 2/51

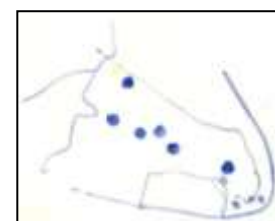
12) Hothfield Common, Miss Cobbe, *BEC Rep.*, 1923, p.219. Marsh, alder carr, E. of Yonse, Hotfield, 1947, 1948, one big tussock 4' across, **MNE**.

13) Roundabout Wood, Y[unbridge] Wells, 1943, JRW; WHP; not seen 1962 CAS. Wood, Ferndale, T[unbridge] Wells, 1943, H.W. Pugsley, **TLS**. Swamp, Angley Wood, Cranbrook, 1957, FR and DS **MNE**.

(**C. appropinquata** Schumach. formerly occurred in Middlesex, and still occurs in Pas de Calais (Camblain-Chatelaine [sic], 1956!).)

C. diandra Schrank (*C. teretiuscula* Good.) 15, [16] 1/51
[Lesser Tussock Sedge]

Native. In short vegetation in rich fen: very rare, and only seen recently at Dungeness. Extinct in Surrey and Sussex, doubtfully recorded for Essex, but locally plentiful in fens in Pas de Calais (Cucq, 1962!). A decreasing species of rich fens.



¹²³ The species of *Carex* are listed here in the sequence of Stace edn. 2, rather than that of the manuscript.

[4] Ham Ponds, FJH in Fl. K.; 1906, H.W. Pugsley **BM**; but appears extinct through lowering of the water table.] [Boggy places, Brook, G.E. Smith in FGEK; probably correct but there is no later record.]

15) Hoppen Pits, Denge Beach, FJH on Fl. K.: A.M.G. Natal and ECW, 1934 **BM**; 1946-62! **MNE** →1973! abundant in *parvocariceta* of the fen zones of all four pits. Marsh E. of Old School, Dungeness, 1962. Marsh E of Boulderwall, Dungeness, 1961. Not seen since 1963 – water levels have fallen.

(recorded at 2) meadows at Upnor, FGEK; by Oare Creek, Cowell, *Fl. Fav.*; Dykes near the sea wall, Ham Marshes, Stowell, Fl.K.: these are almost certainly errors for *C. divisa* or *C. otrubae*: *C. diandra* is most unlikely to occur on the inorganic alluvial silts at these places.)

C. vulpina L.

15, 16

8/52

[True Fox Sedge]

Native. Pond-borders, ditches and Sallow-carrs on the Weald Clay tract from S.E. of Ashford to the Surrey border, where it is frequent; unknown elsewhere in Kent. It occurs always in unflushed, weakly acid to neutral habitats on essentially inorganic substrata. Very rare in Surrey on the Weald Clay of the S.E., where its localities near the Eden are a continuation of its Kentish distribution: very rare in Sussex (Arun Valley) (Amberley area). Unknown in Essex or Pas de Calais.¹²⁴

11) 44 By Eden above Edenbridge, c. 435450, F.R. 1947.

[Near Maidstone, E. Bartlett, 1882, **MNE**.] 54 By R. Eden N E of Chiddingstone, E.S.M. 1894, **BM** det. E. Nemes

(B.E.C Rep. 1939-40, p.263); E.C.W., 1939: 1944! J.H.L. and F.R. c. 513457 54 Marsh below Gilridge, W. of

Penshurst, 1944 F.R. 515441. 54 R. Eden, W. of Penshurst 1944-61, **MNE**. 521438, F.R. 1961 **MNE**. S of

Leigh, N of Railway, 1991 J.Pitt, [locally] a[bandant] 550462. 54 R. Medway, above Tonbridge, 1944-5,

557456, F.R. 1945. Below Tonbridge 604472 etc., by R[iver], and in lateral ditches, 1944-52 to c. 1950, also

599467. 64 Roadside ditch and hollow by Medway, J.P.M.B. 1939: Hartlake Br[idge], J.R.W. 1943, det. E.N.; F.R. 1952, 603473¹²⁵; JPMB, 1959, K. 64 Ditch by

B2015, N.E. of Whetsted 658462, 1944 **MNE**: 1963 FR to 1986! 64, Ditch, S. of Brandbridges 674482, 1944

MNE. 64 Medway E. of Brandbridges. 64 Gravel pits E. of Brandbridges F.R. 1948: 677483¹²⁶. ¾ m S. of Hartlake Br[idge], 1962 C.A.S. 64 Pond and wet copse ½ m E. of Hale Street, 1948 **MNE**, in wood 1985! 681495

etc. 74 Ponds by B.20162, S. of Yalding, 1944→ F.R. 709481 **MNE**. 74 Ponds 1m N. of Marden, F.R. 1952 739459¹²⁷. 74 Ditch by A.229, S.E. of Stile Bridge, Marden, F.R. 1946. 770471. 74 Ditch by A.229, Sweetlands

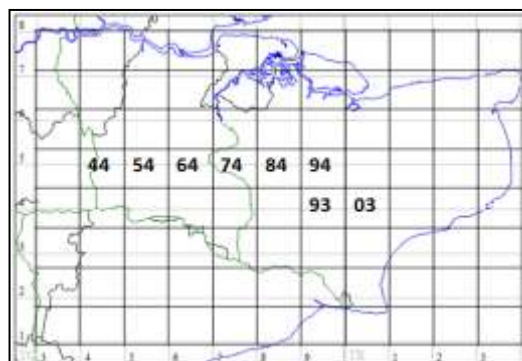
Corner, N. of Staplehurst: 1946→ F.R. 784455. 84 Ditch, Leighbridge, W. of Headcorn, F.R. 1962. 814454. 893406 E. of Langley Smarden, R.A.Clarke, 1956. 84 R. Beult W. of Smarden, 877423, F.R. 1956 **MNE**. Ditch,

Frittenden Rd. Headcorn 824433, R.A.Clarke. 863438 Roadside ditch N. of Marley Farm Smarden, 1949, D.McClintock. 94 Roadside ditch E. of Vitter's Oak, Bethersden, 952407, 1955, E. Scott.

12) S. of Bethersden E.Philp (Tetrad 9238 – probably by river SW of village/by R. Beult SW of Br[idge] near Bridge Farm). 93 By (former) B.2070, N. of Orlestone 992358. 1945-6. **MNE**; still there 1985! 03 Ditch,

Steeds Lane, SE of Kingsnorth, 019377-016377, E. Scott: 1956! **MNE**. (020377 – 016377.) 020350 ditch N. of Ruckinge, E. Scott.

Marsh W of St Michael's, Tenterden, N. of Breeches Pond, N. of Tenterden c.872353¹²⁸, F.R. & J. Pitt 1987 (+ *Carex otrubae*, *Carex rostrata*).



C. otrubae Podp.

15, 16

45/51

[False Fox Sedge]

Native. Pond borders, swamps, ditch and streamsides, on neutral to brackish, usually inorganic substrata: very common in 1)-4), 10)-16) (Blean, the river valleys and the coastal plains); absent from the chalk country

¹²⁴ In addition to a copy of the manuscript Flora account which bears cumulative revisions to 1985, there exist two very similar manuscript notes by Francis Rose headed **CAREX VULPINA L. Kent records held by FR**. These do not appear to be specifically intended for the Flora, but give information for records more or less corresponding to the Flora account, albeit sometimes with additional details. Those additions have been included above in the Flora account, but are given in green font, so as to distinguish. The notes are prefaced by introductory comments, of which one reads: 'The British headquarters of this species is clearly the Weald of Kent, on Weald Clay: habitats are river- and stream-sides, wet meadows, ditches and swampy woods'.

¹²⁵ Thus as written, but 630473 may have been intended.

¹²⁶ Gravel pits do not appear to have existed at this grid reference 1940-60.

¹²⁷ TQ89459 in separate manuscript note.

¹²⁸ Thus as written, but 867349 is more likely.

5)-9), except from springs on the cliffs in 8); very rare in Sheppey. Common throughout SE England and N. France.

Not in Warden, Alkham, Dover, Farningham, T[unbridge] W[ells], Hawkhurst S.

- 1) 47 N. side of Eltham Common, 1934, LRA. Ruxley pits, S&S 46, 47
- 2) 47 Woolwich Arsenal PCH. 47 Plumstead Marshes. 47 Erith Marshes, PCH. 57 Barnes Cray, Crayford. 67 Northfleet Brooks. 67 Shorne. 77 Higham Marshes, 1944 **MNE**. Cliffe Marshes. 77 Cooling Marshes. 76 Halling. 76 Holborough. 76 Snodland Marshes. 76 N. of New Hythe. 87 Grain. 77 Meadow W of Upnor 1944-60 **MNE**. 75 Above Aylesford, EGP, 1958 **MNE**. Conyer KDR. Luddenham Marshes, HMW. (Sheppey, 1x917, A.G.D., **MNE**.) 97 Minster, DHK. 57, 67, 76, 86, 77, 96, 06, 87, 97 (NOT 07 Warden)
- 3) 16 Ditch W of Whitstable HMW.
- 4) 35 Sandwich Bay, in dikes, 1950 **MNE**. 35 Walme Castle Meadow, 1957, BN. Fordwich Marshes, P. Furneaux. 26 Chislet Marshes MEM. 25 Elbridge 1926 JG. 36 Dikes W. of Princes Links 1962. R. Wantsum, Reculver, REW. Stodmarsh, P.W.W. Castle field, Walmer, BN. 25, 35, 36, 16, 26, 36
- 8) 23 F[resh] W[ater] spring below AbbotsCliff: Lydden Spout. (NOT 24; NOT 34)
- 10) Westerham Wood 1947 (82!). 57 S. of Darenth 1894 AHWD, **TLS**. 45, 55, (NOT 56 Farn[borough])
- 11) Birling Marshes, '44 **MNE**. 65 Ryarsh Wood. 65 Leybourne Lakes. 85 Snarkhurst Wood, 1944 **MNE**. 85 By Pond, Kiln Wood, Lenham, '62. (Gault) Greenway Forstal, Harrietsham BD. 65, 66, 75, 85
- 75 Chart Sutton pond. 54 R. Eden, Chiddingstone. R. Eden, Penshurst. 64 E of Tonbridge. 54 Pond E of Chiddingstone. 84 Ditch, Leighbridge, Headcorn, 813454, '62. 84 Ditch E of Headcorn, 849437, '62. 84 Beult bank, N. of Buckmans Green, 889419, '62. 863438 N of Marley Fm, Smarden, DMCC. Pluckley Brickworks. 64 Beltring. Teston. 64 Pond E of Hale Street, 1952 **MNE**. 74 Ponds 1m N of Marden 1932. 74 Pond S of Woolpack, Yalding, 1962. 94 Pond, Birch Wood, Bethersden, 915405, '62. 44, 54, 64, 74, 84, 94
- 12) 93 SE of Lenham. 887463 Westwell WW, ES. 84 R. Stour, Ashford. 04 Cuckoldscoombe, Brook. 14 Stowting. 93 Ditch, Birchett Wood, 992358, by B.2070, 1946, 1952 **MNE**. 93 Ponds, Stibbs Cross, Kingsnorth, 1953-54 **MNE**. 03 Ditch SE of Kingsnorth 1956 **MNE**. Wet Fields SW of Swllidge Ch[urch], RAC. 95, 05, 15, 04, 14
- 13) 54 Ashour Wood. Southborough Pentecosts Field HNC. 83 R[oa]dside E of Cranbrook, D.S. 63 Marshy Roughet and snaw, Lamberhurst 1942 JRW. 73 Marshall Lake, Pinetum, Bedgebury, 1952 **MNE**. (NOT 53), 63, 73, 83
- 14) 83 E of St Michaels, Tenterden, 1958, R. Clarke. (NOT 72), 82
- 15) 93 Shirley Moor. 02 Canal St Mary's Bay, LJM. 02 Brenzett. 02 Romney Warren. 13 W. of Hythe. 01 Dungeness open pits. 03 Below Coppehurst, Aldington. 92, 02, 93, 01, 03
- 16) 13 Postling Wents. Coombe Wood, Etchinghill PW. 23 Holywell, Folkestone. Ponds/ Gault, Folkestone Warren, 65, B.N. 13, 23

C. otrubae x remota = C. pseudoaxillaris K. Richt. (C. axillaris Gooden. Non L.; C. kneucheriana Zahn)

* Top. Bot. Suppl. 1.

- 1) Field by Burnt Oak Lane, Sidcup, 1894, AHWD **BM**. Darrack [sic] Wood, Orpington, E.B. Bishop (Hb. Br.)
- 11) 863438, E of Headcorn; 1949, DMCC; 1893 ESM **BM**. Ditch W. of Smarden, 1949 **MNE**. Haffenden Quarter 883406, '49, DMCC.
- 12) Ditch by Rd N. of Stubbs Cross, Kingsnorth, 1952→54, **MNE**. Birchett Wood, Orlestone, in ditch by B.2070, 1946→ **MNE**.

†**C. vulpinoidea** Michx.

Alien

- 1) Green St[reet] Green (Farnborough) 1937, J.E.L. in Hb.

C. spicata Huds.

15, 16

/51

Spiked Sedge

Native. Hedgebanks, pond- and ditch banks, wood borders, scrub, old sandpits: very common on a wide range of soils in all districts except [sic]. Common in Surrey and Sussex, rarer in Essex: common in Pas de Calais.

- 1) Keston, PCH. Hawkwood, Chislehurst, Swain. Sparrow fields, FM Swain.
- 2) N. of New Hythe, 1943 **MNE**. Below Aylesford, 1958 EGP **MNE**. ¾ m S. of Cliffe Station.
- 4) Fen SE of Wingham 1949 **MNE**. Worth Minnis 1950 **MNE**.
- 6) Mounts Wood, PCH. Green Street Green. By Shorne Windmill. Pilgrims Way, 1m W of Wrotham, 1945 **MNE**. Cookham Woods DMCC. North Wood, Cuxton 1944 **MNE**.
- 7) Putt Wood, Ospringe, 1957 **MNE**. Belmont Park, 1958, DMCC **MNE**.
- 8) Reinden Wood, B.N.

- 9) Wood border, Wolverton, 1962. Ileden Wood, KDR. Eastling Wood, BN.
 10) Sandpit E. of Riverhead by R[ai]l[wa]y CAS. Lullingstone, Swain.
 11) Ryarsh Wood. Maidstone, 1897, H. Lamb **MNE**. R[oa]d bank, Hollingbourne, 1944 **MNE**. R[oa]d bank, Warren Wood, Broomfield 1945 **MNE**. Snarkhurst Wood. Warren Wood, Hollingbourne. Straight mile (W of Tonbridge), 1960 CAS. By Eden, W. of Penshurst, 1944. By Medway, W. of Tonbridge, by R[ai]l[wa]y Br[idge], CAS 1960. By Medway, E. of Tonbridge. Ditch by rd, Beltring, 1944 **MNE**. By Pond E of Hale St[reet], E Peckham 1954 **MNE**. 849437, lane 1m E of Headcorn 1962.
 12) Willesborough Village, 1944 **MNE**. Marshes N. of Willesborough 1955 **MNE**. Cuckoldscoombe fen-meadows. Stowting Meads 1954 **MNE**. Rippers Cross 1954 **MNE**. Stubbs Cross, Kingsnorth 1952 **MNE**. S of Water Fm., Sellindge, RAC.
 13) By stream High Rocks La[ne], T[unbridge] Wells, CAS. Hayden Wood, 1942, Lamberhurst JRW. Field NE of Court Lodge, 1943, Lamberhurst JRW. Goudhurst, 1943 JRW. R[oa]dside, Pattenden, Goudhurst, 1909, JS **TLS**.
 14) Robhurst Fm., High Halden, RAC.
 15) Dungeness, J. Harper.
 16) R[ai]l[wa]y banks, Folkestone Cent[ral] Sta[tion], VFPD.

C. muricata L. (**C. pairaei** F.W. Schultz) 15, 16 /51 [Common Prickly Sedge]
 Native. Dry grassland, hedgebanks and roadsides on sandy soils: frequent and widely distributed in these habitats. On the Eocene in 1), 3) and 6E), and on the Folkestone Sand in 10)-12) and 16): very rare in 13) and 15). Common in similar habitats in Surrey, rare or under recorded in Sussex; not distinguished from *spicata* in Pas de Calais.

- 1) Elmstead Lane, Bickley, 1945 **MNE**. Eden P[ark], AG Davis, **MNE**. Ruxley pits, S&S. Farningham Wood 82!
 3) Trenley Park Wood. Canterbury Golf Course. Alcroft Grange Rd, Tyler Hill 1949 **MNE**. Hernhill, bank near Waystreet Fm. on Thanet Sand 1955 **MNE**.
 6E) Lane End to Green Street Green, 1946 **MNE**. Greenhithe GMB.
 10) Bessels Green, 1949. Oldbury Lane, Ightham 1945 **MNE**. Eynsford, GMB. ¾ m S. of Brasted 1955 **MNE**.
 11) E. Malling Village. New Hythe Lane 1952 **MNE**. SW of Addington 1946 **MNE**. Wrotham Heath. Platt. Ditton. Bank, Aylesford, 1955 **MNE**. Eythorne Street, Hollingbourne, 1963. By A20, N of Chegworth, Harrietsham, 1944; 1960 **MNE**.
 12) Potters Corner, by A.20, 1945. Ashford Warren 1944-5 **MNE**. Willesborough Village, 1s945. Willesborough Lees, 1944 **MNE**. Hothfield, by A.20 W. of Woolpack, 1947 **MNE**.
 13) Postern Lane, Tonbridge, JPMB; 1944!
 14) Lydd Common, 1954 **MNE**.
 16) Folkestone Leas. Sandling Junction, 1961, **MNE**.

C. divulsa Stokes 15, 16 38/51 Grey Sedge
 Native. Hedgebanks, woodborders and pastureland on dry soils, mostly on sand, but also on chalk-derived loams; widespread, and locally frequent in the chalk districts 5)-8), and on the L[owe]r Green Sand in 10), 11), 12) and 16); more scattered in 3), 4), 13) and 14) and on the Weald clay of 11) and 12). Frequent throughout SE England and N. France.

- 1) Hayes Common, 1931: W. Abbey Wood Sta[tion], 1936, PHC. North Cray, G.M.B. vd bank W. Wickham, 387654, D.P.Y. 47 Bexley
 2) Dartford Marshes 1931, PHC. Faversham KDR.
 3) 96 Bysing Wood. 05 N. of Dunkirk. Whitstable Castle REW. 05 Chilham; 15 Canterbury; 96 Bysing Wood
 4) 16 Westbere Mashes 1956 **MNE**. 26 E of Stodmarsh 1955 **MNE**. 16 Whitstable; 26 Stodmarsh
 5) 46 N. of Cudham, 1938, F.R.B. 46 R[oa]d bank, Halstead 1947 **MNE**. 55 Knockholt, 1951, **MNE**. 46 By James Wood, Keston 1954 **MNE**. 46 SW of Downe, 1958 **MNE**. 46 Orpington, 55 S[even]oaks
 6) 56 R[oa]dside, Top of Greenhill Wood, Otford, 1950 **MNE**. 67 Shorne Warren. 77 Chattenden Wood, Cliffe (L[ondon] Clay) 1950 **MNE**. 77 Cockham Woods, Upnor, 1960 **MNE**. 67 Gravesend; 56 Farningham; 66 Halling; 57 Dartford; 77 Cliffe
 7) 86 Heath (Thanet S[and]), Dannaway, Newington, 1957 **MNE**. 95 Belmont Park, DMCC, 1958 **MNE**. 86 Hedge by Magpie Farm, Bredhurst, 1960 **MNE**. 95; 76 Chatham; 85 Snarkhurst
 8) 04 ½ m E of Wye on Roadside, 1953 **MNE**. 24 Lane W. of Denton, 1955 **MNE**. 25 Lane, Elvington, 1956 **MNE**. 14 Dane Fm, NW of Elham, 1958 **MNE**. 24 Alkham; 25 Wingham; 14 Elham
 10) 45 N. of Ide Hill. 55 Ightham. R[oa]dside near Ch[urch], Kemsing, '62, HMP. Darenth. 45 W[ester]ham; 55 S[even]oaks

11) 65 Ryarsh Wood. 65 Offham, 1954 **MNE**. 65 E of Plaxtol. G[rea]t Fishall Farm, NE of Tonbridge, 1961, CAS. Edenbridge, J. Talbot, 1926. 74 S. of Yalding. 94 Pluckley Brickworks, 1943, 1845 **MNE**. Golden Green. 85 Snarkhurst Wood. Fairbourne Lane Harrietsham BD. 65 Pizien Well, Wateringbury. 75 Maidstone, 1958 EGP **MNE**. Kild Wood Lenham BD. 54 E. of Haysden. 65 Wrotham Heath, 1945 **MNE**. 65 S. of Broadwater Fm, E. Malling. 84 Sutton Valence, 1896, W. Whitwell **BM**. 54 Chiddingstone Causeway. 84 On clay, S. of Coldbridge Wood, Lenham, 1958, Miss E. Millward **MNE**.

65 W[est] M[alling]; 75 M[aidstone]; 85 Snarkhurst; 74 Marden; 84 Headcorn

12) 94 Potters Corner. Woolpack Chilham, 1957 ES. 04 Willesborough. 893406 E of Langley, Smarden, DMCC. 04 R[oa]dside (F[olkstone] Sand), Bybrook, Kennington, 1952.

93 Woodch[urch]; 03 Aldington; 94 P[otters] Corner; 04 Kennington

13) Southborough Vauxhall Lane HNC. 54 Penshurst Place Wood. 53 Halls Hole Rd., T[unbridge] W[ells], 1943, HWP. 54 Tonbridge Wood, W. of Bidborough, CAS. 53 Lane, Ashurst Park, T[unbridge] W[ells], 1943, HWP. N of Pembury waterworks, 1962 CAS. Lamberhurst JRW. 63 N of Hooks Green, 1947 **MNE**. Finchcocks 1897 JS **TLS**.

54 Tonbridge; 51/53 T[unbridge] W[ells]; 63 L[amber]hurst; 73 Cranbrook; 83 Tudeley

14) Benenden, DKR.

16) 23 Sandy bank E of Sandgate. 13 Bank by Newington Moor 1954 **MNE**.

51/92 Appledore; 13; 23

[**subsp. leersii** (Kneuck.) W. Koch]¹²⁹

15, 16

12/51

[Leer's Sedge]

Native. Hedgebanks and wood-borders on base-rich soils, mainly on chalk: widespread but uncommon: 5)-8), 10), 11). I am not fully convinced that this species can always be distinguished from *C. divulsa*. Frequent in Surrey, very rare or unreported in Sussex and Essex: not yet detected in Pas de Calais.

5) 46 Hedge, Biggin Hill, 1949 **MNE**.

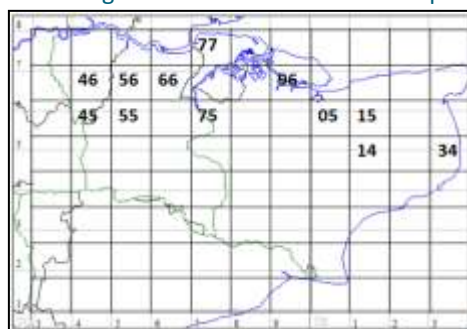
6) 56 Farningham, 1954, J. & P.V.H.. 66 Lane above Wrotham Water, near Vigo, 1962. 77 R[oa]dside to Cliffe, N. of Rochester 1949 **MNE**. 66 Lanebank, Upper Halling, 1953 **MNE**.

7) 96 Tunstall, 1958, DMCC **MNE**.

8) 15 Marley Lane, Kingston 1949 **MNE**. 14 Lyminge, 1954 **MNE**. 34 Waldershare (Eastling Wood) 1959 **MNE**. 05 E of Godmersham, 1960 **MNE**. Eastling Wood, B.N. 34 Roadside bank, Sutton, B.N., 1960. 24 By Crabble Mill Pond, Dover, EGP.

10) 55 One Tree Hill, 1952 **MNE**. 45 SE of Sundridge, 1955 **MNE**. 45 1m E of Westerham 1955 **MNE**.

11) 75 Allington, 1882, E. Bartlett **MNE**.



C. arenaria L.

15, 16

11/51

[Sand Sedge]

Native: open sandy habitats: local: abundant on fixed coastal dunes, locally abundant on roadside verges and banks inland on the Folkestone Sand from Wrotham Heath to Leeds in 11). Very local on the coasts of Sussex and Essex, very [sic] inland on open sandy heaths in W. Sussex and W. Surrey; abundant along the coast of Pas de Calais.

1) Ruxley pits, 1962, A.G. Spooner. 06 Shellness, Sheppey, 1946. 07 Beach N. of Leysdown. 07, 06

2) 06 Beach W. of Seasalter, DHK, 1945. 87 Grain. 87

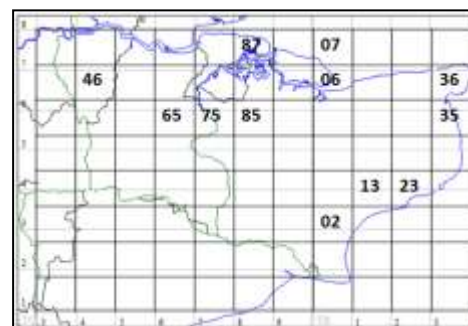
3) Shipyard, Whitstable town, on beach shingle, HMW.

4) 35 Abundant on the fixed dunes, from Deal Links; by Sandwich Bay; to 36 Shellness at the mouth of the Stour. Old dunes E of Downs Fm 62. 36 Pegwell Bay beach. 36, 35

11) 65 Wrotham Heath (on sandy verges of A.20 and in adjacent grass heath) 1944-60. 75 Roadbank near Bearsted Station. 85 Verges of A.20, 1 m. W of Hollingbourne, abund[ant], 1944-. 85 By A.20, on banks, Warren Wood, Leeds, 1944-62. 65, 75, 85

15) 02 Romney Warren, 1945-62. 13 Old Dunes S. of W. Hythe, '62. Greatstone dunes, 1946-60. NE of Littlestone, '62, ES. Hythe, 1955. 02

16) 23 Folkestone Lees. 23, 13



¹²⁹ In the manuscript treated as *C. polyphylla* Kar. & Kir. (*C. leersii*).

C. disticha Huds. 15, 16 19/52 [Brown Sedge]

Native. Base-rich or calcareous fens and fen-meadows, nearly always on peat; locally common in 2), 4) 10) 11), 12), 15) and 16); probably now absent elsewhere. Very local in Sussex, rare in Surrey and Essex; locally common in Pas de Calais.

1) Abbey Wood Sta[tion], GBB, '58.

2) Northfleet Brooks, 1944. ¾ m S. of Cliffe Sta[tion], 1944. Holborough Marshes. Lunsford. [Stone Marshes, WCRW.] [Swanscombe Marshes, 1919, PCH.] Graveney Marshes, 1954, R.W.B.

51/76 Medway; 51/67 Gravesend; 51/77 Higham

4) Hacklinge, Marshy Meadows, 1945. Grove Ferry RGW. Chislet Marshes MEM. Fen N of Wingham, 1945. Preston Marshes. NE of Sandwich.

61/26 Preston; 61/25 Wingham; 61/35 Sandwich

10) Meadow N. of Shoreham, 1954. Marsh NW of Brasted Sta[tion], RAC. S. of Darenth, 1894, AHWD TLS.

51/56 Shoreham; 51/45 Westerham; 51/55 S[even]oaks

11) Leybourne Marsh, 1944. Birling Marshes, 1943.

51/65 W[est]Malling; 41/85 Hollingbourne

12) Brook, Cuckoldscombe. Chilham Marshes. Wet past[ure] near Wye 045460, 1958, PCH. 997463 Westwell, pond by W. Way 1955 ES.

51/95 E. Lenham; 51/94 Hothfield, 1955; 61/04 Ashford; not rec[orde]d in 61/14

[13] Southborough Common, in pond, JE little, j. Bot. 1926, p.250.]

15) Dungeness, abundant to l[ocally] d[ominant], in fens, Hoppen Pits, and 079187, DMCC. Marsh E. of old school, Dungeness. Marsh by R[oa]dside S. of Lydd, 1945.

51/92 (Appledore - E Oxney); 61/01 Dungeess; 61/13 Hythe; 61/23 Folkestone

C. divisa Huds.

15, 16

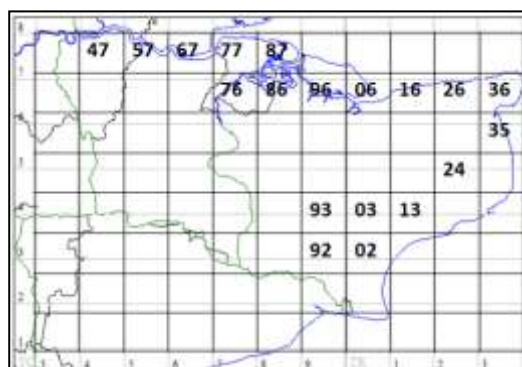
21/52

[Divided Sedge]

Native. Pastures and dike banks on the alluvial coastal and estuarial flats on soils derived from former saltings: abundant in such habitats, very rare elsewhere. Locally common in the coastal marshes of Sussex, Essex and Pas de Calais: very rare on dry grasslands near the Thames in N. Surrey.

[1] West Greenwich, J.T. Syme, 1852 BM.]

2) Plumstead Marshes, 1868 MA Lawson BM; 1944! Stone Marshes. Northfleet Brooks, 1946. Chalk Marshes. Shorne Marshes. Higham Marshes. Marshes W. of Cliffe. ¾ m S. of Cliffe Station, 1944. E. of Cooling. Swanscombe Marshes, 1946. Erith Marshes. All Hallows. Grain. Stoke. W. of Upnor, in Meadows. Holborough Marshes. Burham Marshes. Marshes N. of Dartford, GMB. Kings Ferry. Near "Sportsman", Seasalter, on alluvial flats, PRB.



51/67 Gravesend; 51/47 Woolwich; 51/57 Dartford; 51/76 Medway; 51/86 L[owe]r Halstow; 51/96 Teynham; 61/06 Faversham; 51/77 Higham; 51/87 Grain; 51/97 Sheerness; 61/07 Warden S.

3) Edges of brook, Swalecliffe, 1946, P.R.B. Track, Seasalter, HMW.

61/16

4) NE of Sandwich. E of Sandwich. [T.B. Blow 1875 BM.] Chislet Marshes MEM. Minster Marshes JG. Meadows, Worth Minnis. W of Brooksend, LWW. Stodmarsh, REW. St Georges Links, W.J.L.S. 1946. Hacklinge Marshes. Salting edge, 266692 N of St Nicholas, 62. [Ramsgate 1837 W. Wilson BM.]

61/35 Sandwich; 61/26 Chislet; 61/36 Minster etc.

8) Chilton, Mrs K.D. Rowlands, on roadside bank near source of the Dour.

61/24 T[empl] Ewell; 61/13 Hythe; 61/03 Ruckinge area

15) Brenzett, 1945. E. of Appledore. Dymchurch. Lydd. 93 Shirley Moor, by dike N of B.2080, 1965. Hythe, 1879, E.B. Clarke BM. SE of Ham Mill Green, Romney Marsh, 1952 DMCC. 02 St Mary's Bay by canal, LJM.

not in 61/01 Dungeness; 61/02 Romney; 51/92 Appledore

16) verge of A20 W. of Newington (Frogholt) B.N.

C. remota L.

15, 16

/51

Remote Sedge

Native. Damp woodland, Alder carrs, ditch and stream banks, most often in shade: very common in the Weald in [sic]

1) Holwood Park. Eden Park, AGD, 1919 MNE. Shooters Hill Woods, G.M.B. Ruxley pits, S&S.

2) Northfleet Brooks, 1944. Higham Marshes, 1947. Holborough Marshes. S. of Snodland. N. of Lunsford.

3) Roadsides, Clowes Wood, PRB, 1946. Britton Court Fm, Tyler Hill, REW. Perry Wood, Selling, DMCC. Blean Wood N of Dunkirk, 1955 MNE. 097581, Alder carr N of Chartham Hatch Mrs B Nash '55.

4) Ditch E of Ellbridge [sic] LWW. Elbridge JG.

10) Westerham Wood, 1947 (82!). Darenth copse, 1944-.

11) Ryarsh Wood. Addington Place DMCC. Horish Wood. Snarkhurst Wood. *Alnetum*, Kiln Wood, Lenham, '62. Eden, NE of Chiddingstone **MNE**. Eden, W. of Penshurst. Gilridge. Straight Mile, Leigh. Medway above Tonbridge. Medway below Tonbridge. Pond E of Hale St[reet] CAS. Beltring. Brandbridges. Teston. Yalding. Collier Street. 563482 R[ai]l[wa]y bank, Hildenborough, 1960, CAS. 1m E of Headcorn. Pond W. of Leigh Bridge Headcorn 813454, '62. Birch Wood, NW of Bethersden 915405, '62. 863438 N of Marley Fm Smarden '49 DMCC. 893406 E of Langley Smarden '49 DMCC.

12) E. Lenham. Ruckinge 1906 H Elgar **MNE**. Cuckoldscomb; 95. Brook. Ditch, Stubbs Cross, 1954 **MNE**. Ditch Birchett Wood 992358, 1952, DMCC. Mountain St[reet], Chilham, DHK.

13) Cowden. Redleaf Wood, Penshurst. Wood E of Penshurst Place. Horsmonden Furnace Pond JRW 1939. Roundabout Wood, T[unbridge] Wells, 1943, H.W.P. Timberlog Wood, Lamberhurst, 1941, JRW. Bayham Abbey CAS. Bedgebury Pinetum. Stone Cross Gill, Ashurst, 518381, 1959, CAS. Wet Wood, South Park, Penshurst, '62. Combwell Wood 1979. Boggy Wood SW of Pembury 614395 PCH.

14) Breeches Pond.

16) Coombe Wood Etchinghill BW.

C. ovalis Gooden. 15, 16 /52 Oval Sedge

Native. Heaths, grass-heaths, and open places in woods on acid soils: fairly common on the Folkestone Sand in 12) and on Hastings Sands in 13): uncommon in 1), 3), 10), 11), 14) and 15). Rather common in Surrey and Sussex, rather rare in Essex, rare in Pas de Calais.

1) Chislehurst Common, 1945 **MNE**. Hayes Common, DMCC. Keston Common, 1949. Sparrow fields, Swain.

3) Grass-heath N. of Dunkirk, 1955 **MNE**. Minching Wood, Blean, 1957 **MNE**. Heathy edge Church Wood, REW.

4) Stodmarsh, 1950, LWW. Hacklinge.

10) Meadow 1m. E of Westerham, 1955 **MNE**. Knole Park, PCH. Meadow W. of Otford Road, N of Sevenoaks, 1950-**MNE**.

11) Addington Place, DMCC. 65 Leybourne Lakes, 1943. 85 Boggy field, W. of Sandway, 1954 **MNE**. 85 (Sandpits) Kiln Wood, Lenham '62. The Brooks, Harrietsham, Mrs B Dodds. 54 Straight Mile, Leigh 1944 **MNE**. 55 Hoads Common, Shipbourne. 64 Pond E of Hale Street CAS. 54 Riverbank, W. of Tonbridge. 84 W. Part of Dering Wood, 1962, E Scott.

12) Hothfield Common **MNE** 1962. Ashford Warren. Gibbons Brook, 1945-54 **MNE**. Marshy field E of Gibbons Brook, 1954. By Mersham E lake RAC. Grass-heath, Willesborough Lees, 1950. Boggy field by Stonehill, Sellindge, 1945 34. Fields SW of Sellindge Ch[urch] RAC. Bog ½ m S. of Priory, Monks Horton 1953 **MNE**.

13) Hawkenbury Bog 1945: CAS, 1958. Gravel pit, Lamberhurst, 1940, JRW. Pembury Woods. By Lake, Kent College, Pembury 1956, F.R.B. Ferndale, T[unbridge] Wells CAS. Chingley Woods. Frizley, near the bog. Southborough, Pentecost field, HNC. Tun[bridge] Wells Common CAS 1961. Near Str[eam], High Rocks La[ne], T[unbridge] Wells, CAS, 1960. Swathlands Penshurst. Redleaf Wood, Penshurst. Ashour Wood, Penshurst 1944 **MNE**. E. of Penshurst place. Below Moorden, Penshurst. Bedgebury by Lake, 1897 JS **TLS**: GMB. Bayham CAS.

14) R[ai]lwa[y], High Halden, B.N. Robhurst Fm, High Halden RAC. Near Penhill, 1947.

15) 079187 Damp shingle hollows Dungeness, E of School, 1946-62 **MNE**. Romney Warren.

16) Damp slope SW of Newington BN.

†C. crawfordii Fernald

1) Pit, Green Street Green (Farnborough) 1937, J.E. Little in Hb.

C. echinata Murr. 15, 16 /51 Star Sedge

Native: moderately acid valley bogs, swamps, and carrs; among short-sedge vegetation; rare generally, but locally frequent in 13), and on the Greensand of 12). Locally frequent in Surrey and Sussex, very rare in Essex Calais.

1) 46 Keston Bog, 414648, AGD, 1915 **MNE**: 1945 **MNE**! 1962, HMP. 46 St Pauls Cray Common, WCRW. 46

3) 15 Bigbery Wood, in Alder Carr, 1954 **MNE**. 05 Bog, Hunstead Wood, Chartham Hatch, 1956 **MNE**. 05, 15

4) 35 Ham Fen, 1956 **MNE**. Ditch W. of Sandwich DHK. 35

10) Border of peaty ponds, Rose Wood, Ightham, 1944-62 **MNE**. 55 Boggy Alder carr, corner of Seal Chart, 1954, **MNE**. 55

11) 85 Boggy meadow W. of Sandway, Lenham, 1954 **MNE**; 1965, B. Dodds. 85

12) 94 Hothfield Common, 1943-62, **MNE** -98. 13 Gibbons Brook, GW: 1945-54! **MNE**. 04 Willesborough Lees, 1944-54 **MNE**. 03 Bog, Stonehill, Sellindge, 1945-54, **MNE**. 13 Boggy field, Monks Horton, 1953 **MNE**.

03, 13, 94, 04

13) 53 Hawkenbury Bog, 1943, JRW; 1944-48; 1958, CAS; 1965 R.E. Sh. 64 Pembury Wood, bog near pond, 1952: 1961, CAS. 64 by Lake, Kent College, Pembury, 1956, F.R.B. 83 Chittenden Wood, 1943, JRW; 1944-1958! **MNE**. 54 E of Moorden, Penshurst 1949 **MNE**. 614 Furnace Pond, Horsmonden, 1954 **MNE**. 73 Near Lake, Bedgebury Pinetum 1954 **MNE**, 1961 EGP **MNE**. 63 Bog in Chingley Wood, 1947 **MNE**. 73 bog in Angley Wood, 1945-61 **MNE**. [Bog opp[osite] Bedgebury House 1897 JS **TLS**.] 54, 53, 64, 63, 73, 83

14) 83 near Penhill, 1947.

15) 01 Fen SE of Hamilton Fm, Dungeness, 1946, JHL; 1953! **MNE**.

01

C. elongata L.

15, 16

3/51

[Elongated Sedge]

Native. Swamps, sallow-carrs, river and ditch banks, in Kent always on the Weald clay: very rare. Very rare, in a few places by rivers in Surrey and Sussex; extinct in Essex: unrecorded in Pas de Calais but fairly frequent in the east of Nord (forêt de Wassigny!).

11) Marsh below Gilridge, W. of Penshurst, 1944 **MNE**. By R[ai]l[wa]y Br[idg]e, by Medway, W. of Tonbridge, 1944, **MNE**; 1960, CAS. Ditch 1m E. of Tonbridge, abund[ant], 1944 **MNE** 1952 **MNE**. Ditch E. of Beltring, J.E.L. Marshy wood E. of Hale Street, E. Peckham, 1952 **MNE**. [Near Maidstone, 1882, E.B., **MNE**]

12) "Scotts Pond", Stubbs Cross, Kingsnorth, E.S.; 1952 **MNE**.

C. curta Gooden.

15

2/51

White Sedge

Native. Moderately acid swamps: extremely rare. In Surrey rare and nearly confined to the west: in Sussex in a few localities in the Weald and on the western Greensand; unrecorded for Essex and Pas de Calais.

12) Boggy ditch and adjacent woodland, among *sphagnum*, Willesborough Lees, 1944-54! **MNE** 1978 EP. 04

Swampy Pond on Weald Clay, SE of Spot House, 975348, Shadoxhurst, 1955, ES **MNE**. Longrope Wood, 987354, ES, 1955. 93

C. hirta L.

15, 16

43/51

[Hairy Sedge]

Native. Fens, meadows, pastures, sand dunes, roadside banks; on soils of a wide range of texture and water content, but commonest on peat, sand and alluvial soils: absent on typical chalk downland, and in very acid or saline habitats, or in heavy soils, but otherwise fairly common and widespread through the county. Common in Surrey, Sussex and N. France.

1) 47 By R[iver], N. Cray, PCH. 47 Mount Mascall, Bexley, PCH. 46 Keston Common. Blackheath, ECW, 1946. 47 Eltham Common, 1934, LRA **G**. 47 Woolwich Common, 1934, LRA **G**. Ruxley Pits, S&S. NOT 51/37; 46, 47

2) 47 Woolwich Arsenal, PCH. 47 Northfleet. 57 Below Crayford. 97 Sheppey. 97 Upnor Marshes. 87 Gain. Newington, F.F. 76 Holborough Marshes. (NOT 07), 97, 77, 87, 76, 86, (NOT 96), 06 '55

3) 16 Thornden Wood. 05 Dunkirk. Church Wood, REW. 05, 15, 16

4) 35 Deal Links. 35 Ham Fen, 1954 **MNE**, 1991. Chislet Marshes, MEM. Wenderton Meadows, BN. 25, 35, (NOT 61/36), 26

6) 57 Greenhithe. 57, 67

7) 95

8) Winterage Wood, Acrise, 1963, DACL.

9) Pegwell Bay.

10) Darenth water Meadows, PCH. 55 KNole Park. 55 Sadpit by R[ao]l[wa]y E of Riverhead, CAS. 56 Meadow N. of Shoreham. 55 Dunton Green, 18919, AGD, **MNE**. Brasted, marsh near Ch[urch], RAC. Bradbourne Meads FSEF. Westerham Wood 1947. 45, 55, 56

11) Addington Place DMcC. 66 Birling Marshes 1943 **MNE**. 65 Leybourne. 75 New Road, E. Malling. 65 Roydon Hall. 65 Ryarsh Wood. 85 A20, W. of Hollingbourne. 85 Kiln Wood, Lenham, on Sandgate loam, '62. The Brooks, Harrietsham, B.D. 66, 65, 75, 85, 74, 84

12) Stubbs Cross, 937393, 1952, DMcC. Criol Fm Shadoxhurst, 1952, DMcC. Shoddington W[ater] Works ES. 14 Stowting Meadows, 1954 **MNE**. Hothfield Common, NW corner. Cuckoldscoombe, to 1995. 94, 04, 14, 93, 03

13) Meadows NW of Chiddingstone 1944, 1947 **MNE**. Southborough cemetery, HNC. Finchcocks, 1896, JS **TLS**. 44, 54, 64, 73, 83, (NOT 53), (NOT 63)

14) 83 Near Breeches pond, 1947. 73 Hawkhurst, DS. Knock Wood Tenterden RAC. (NOT 72), 82, 92

15) Dungeness, 1953, **MNE**. 02, 01

16) Folkestone Warren KDR. 13, 23

(*C. lasiocarpa* Ehrh. occurs in valley bogs in the New Forest, Hants, in Suffolk, and in rich fen at Cucq, Pas de Calais, but is unrecorded for Kent, Surrey, Sussex and Essex.)

C. acutiformis Ehrh. 15, 16 37/51 [Lesser Pond Sedge]

Native. River and stream banks, ponds, fens and ditches in neutral or calcareous waters; widespread, and generally common and abundant in the basins of the Darent, Medway, Stour, and Thames, in 1), 2), 3), 4), 10), 11) 12): but very rare in the Thames-Medway estuary below Northfleet and Tochester, and unrecorded in the Stoke-Grain-Sheppey-Teynham areas: very rare in the High Weald (Lamberhurst only) in 13), rare in 16): absent from Romney Marsh 15), and the chalk districts 5)-9). Frequent in Surrey, Sussex, Essex, and Pas de Calais in suitable habitats.

1) Keston DMcC. Locks Bottom, near Keston, 1940 F.R.B. By lake, Holwood Park, 1954 **MNE**. N. Cray, by R. Cray, 1955 **MNE**. Ravensbourne, Bromley, AGD, 1919 **MNE**. Ruxlet pits, S&S. Orp[ington] 51/46; 51/47; 51/57

2) Plumstead Marshes. Northfleet Brooks. Holborough Marshes. S. of Snodland. New Hythe. Medway banks, above Aylesford. Waystreet Fm, Hernhill, HMW. (Crayford, H. Groves **BM**.) Barnes Cray, 1944. Fen, 857669, L[owe]r Halstow '62. 51/76 Medway; 51/86 rare; (**NOT** 51/96); 61/06; 51/67; 51/77, '55; (**NOT** 87); (**NOT** 97)

3) Alnetum, Hunstead Wood, Chartham Hatch, 1956 **MNE**.

4) Hacklinge Fen. N. of Wingham. Wenderton, BN. Ham Fen, 1955 **MNE**. Stodmarsh REW. W of Brooksend, LWW. Sandwich, DACL. Westbere Marshes, MEM. Sturry 61/16; 61/26; 61/36; Wingham 61/25; S[and]wich 61/35

10) Darent Water Meadows PCH. Shoreham, by R. Darent, M. Horner, BEC Rep. 1923, p218 (var. *composita*). Riverhead. Meadow S. of Otford, 1956 **MNE**. Brasted, Marsh near church, RAC, '58.

51/45 West[erham]; 51/55 S[even]oaks; 51/56

11) Birling Marshes, 1943 **MNE**. Leybourne Lakes, 1960. Tovil. (Above Maidstone, 1902 JH Allchin **MNE**.) Farleigh. Teston. N of Beltring, in marsh by Medway, 1944, **MNE**. L[owe]r Haysden, above Tonbridge, 1944. Addington Place, DMcC. Horish Wood. Marsh W. of Sandling 1943 **MNE**. W[est] M[alling]; 51/75 Maidstone; 51/85; 66; Edenbr[idg]e 51/44, 1955; Tonbr[idg]e 51/54; Pemb[ury] 51/64; Marden 51/74; Headcorn 51/84, 1955

12) 14 Stowting Meadows, 1954 **MNE**. 04 Cuckoldscoomb, Brook. 95 SE of Lenham. 94 Charing Heath, Alder Carr, ES. 05 Chilham, by Stour, 1938 F.R.B.: 1959! **MNE**. Lenham E 51/95 (recent); Hothf[iel]d 51/94; Ashford 61/04; Stowting 61/14; Chilham 61/05; C[anter]bury 61/15

13) 63 Ditch S of Church, Lamberhurst, 684365, CAS, 1960. (**not** near T[unbridge] W[ells] 51/53) in Lamberhurst 51/63 (**not** in C[ran]brook 51/73). 63

14) In Tenterden, 51/83, 1965. Breeches Pond, RAC. (**not** in Oxney-Appledore area 51/82, 51/92)

83 (**NOT** in 72, 82, 92)

15) (**not** at Dungeness 61/01 **nor** Romney area 61/02) **in** Woodch[urch] 51/93; **in** Ham St[reet] 61/03; **in** 61/13 Hythe.

16) 23 Sandling Park RAC. Fen, Darnley Vale, Cheriton, 1955 **MNE**.

23

C. riparia Curt. 15, 16 32/51 [Greater Pond Sedge]

Native. Fens, swamps, riverbanks, ditches, in neutral, calcareous or brackish waters, and mainly on inorganic substrata; locally common, and widespread in 2), 4), 11), 12) and 15): unrecorded from 5)-9), from the High Weald 13) and 14), from 16) and the coastal parts of Romney Marsh. Commonest by the large rivers. A dominant of the "*Magnocaricetum*" association of base rich marshes with consistently high water-tables. Frequent in the river villages of Surrey, Sussex and Essex and N. France.

1) [Charlton Marshes, 1821, C. Johnson.]

2) Plumstead Marshes. Erith Marshes, PCH. Denton. 76 Holborough Marshes 1944 **MNE**. R[iver], N. of New Hythe, 1943 **MNE**. R[iver], Aylesford, 1958 EGP, **MNE**. 16 Luddenham Marshes, H.M.W. 06 Dikes, W of Waystreet Farm, Hernhill, 1955 **MNE**. 06 Seasalter, dikes, HMW. Ditches, Barnes Cray, 1944. Higham Marshes PCH. Eccles, by Medway '44. Northfleet Brooks. Dartford 1881 J Groves **BM**.

51/47-'55; 51/57 Dartford; 51/76 Rochester, 51/86 L[owe]r Halstow; 51/96 Teynham '56; 61/96 Fav[er]sham; 51/67; 51/77-'56; 51/87 Grain-'58?

4) Hacklinge Fens. Wingham N Fen, DACL. Preston Marshes, NW of Ch[urch], '62. River NE of Sandwich. 15 Fordwich Marshes, 1949, E. Robinson. Dikes, Wenderton, BN. Ham Fen, 1991.

W[ing]ham 61/25, 1986; S[t] Nich[olas] 61/35; 61/16 Sturry '56; 61/26; 61/36 recent.

9) 36 Copse, Durlock Minster, AGS.

10) The Moors, Bat & Ball, 530575, CAS. Chalk stream, Brasted Brook, RAC.

51/56 Farningham '56; West[er]ham 51/45; S[even]oaks 51/55.

11) Addington Place, DMcC. Maidstone 1848 **MNE**; 1878, E. Bartlett **MNE**. By R[iver], S. of Yalding 1953 **MNE**. Medway, W of Brandbridges, 1939 JRW. Medway, Hartlake Bridge, 1943 JRW. Medway, Poundsbridge, 1963, R.E.Sh.

(**not** 51/44); Tonbr[idg]e 51/54;

Pemb[ury] 51/64; (**not** 51/74); Headcorn 51/85; 51/65 W[est] M[alling]; 51/75 Maidstone; 51/85; (**not** 51/95 Lenham)

12) Mersham Mill, 1956 **MNE**. Eastwell Lake, CT; ES. Brabourne Lane, Smeeth, RAC. Pond SW of Sellindge Ch[urch], RAC. (not Stowting 51/14; Hoth[field] 51/94; Ashford 61/04; Chilham 61/05; C[anter]bury 61/15.

13) (not near T[unbridge] Wells 51/53; nor L[amber]hurst 51/63; nor C[ran]brook 51/73.)

14) 83 Roadside ditch, Knock Fm, Tenterden, 1958, RAC.

51/82 W. Oxney/Rolvenden;

51/92 E. Oxney/Appledore; 51/83 Tenterden; 51/93 Woodch[urch]; 61/03 Ham St[reet]/Bilsington

15) Dungeness, near old school, 1953 **MNE**. Sandhurst Levels, 1954 **MNE**.

(not in 61/02 Romney; not in 61/13 Hythe; not in 61/23 Folkestone)

C. pseudocyperus L.

15, 16

/51

[Cyperus Sedge]

Native.

1) Hayes, DMCC. Abbey Wood, 1927, H.J.B. Pokeridden Wood, F. and C.A. Swain. Crofton Wood, 1955, GMB.

2) Higham Marshes, 1944. Marsh E. of Cooling, 1944.

4) Fordwich Marshes, 1949 E. Robinson. Minster Marshes, 1963. Ditches, Wenderton, B.N. Ham Fen dikes, 1991.

6E) Pond, Randall Wood, Shorne, 1954 **MNE**.

10) Wilderness Park Pond, Seal, 1944. Seal Chart Pond, 1944. Westerham Wood, 1947. Dunton Green, WCWR.

11) E of Tonbridge by Medway 1961, CAS. 1½ m S. of Headcorn, 1944. Pond 1m E. of Headcorn, 1962. 2½ m N. of Staplehurst. E of Marden. S. of Yalding. Mockbeggar, Collier Street. Pond in Kiln Wood, Lenham '62. Pond E of Hale St[reet] CAS, 683493, 1957. Smarden. Leighbridge Pond Headcorn 813454, '62. Pond 1m E of Headcorn 849437, '62. New Ho[use] Fm Pluckley, V.F.P.D.

12) 04 Mersham-le-Hatch, E lake. 14 40 Acre Wood, Monks Horton, ES. Pond near Spot House 975348, 1955, ES. Birchett Wood, 992358, DMCC, 1952.

13) Ditch in fields below Lamberhurst Ch[urch], 1941, JRW: 1960, CAS, 684385. Kilndown Wood, 1946. [Tun[bridge] Wells WWR **TLS**.] Pond by B.2176, 1m N. of Penshurst 1944 **MNE**. Penshurst Park Pond, M. Mallinson. Pembury Woods, 1959, CAS. Calla Wood, Pembury, 1962, CAS. Angley Wood swamp / Cranbrook, 1955 **MNE**. Bayham Lakes CAS.

14) Breeches Pond, 1947.

15) Largest 2 lakes, Hoppen Pits, Dungeness 1947-1953 **MNE**; H. Lamb, 1901 **MNE**. Dike, Windmill Channel, E of Freezingham, Rolvenden, 1959 **MNE**.

C. rostrata Stokes

15, 16

11/51

[Bottle Sedge]

Swamps, ditches, and lake borders, usually on peaty organic substrata, in calcareous to flushed weakly acid waters; it forms a pioneer stage in the hydrosere leading to the formation of fens. Now rare and local in Kent, though still frequent in 4). Local and scattered in Surrey and in Sussex, extinct in Essex, very local in Pas de Calais.

3) 05 Sphagnum bog in Alder carr, Hunstead Wood, Chartham Hatch, 1956 **MNE**.

4) 25 Fen ditches N. of Wingham, 1945-63 **MNE**. 25 Fen E. of Wingham, 1945 **MNE**. 35 Hacklinge Fen, 1946 **MNE**. 35 Worth Minnis, 1960, **MNE**. 25 NE of Wickhambreaux, 1956 **MNE**. 16 Westbere Marshes, 1956 **MNE**. Stodmarsh, Miss E. Milward, 1958 **MNE**. 15 Fordwich Marshes 1949, E. Robinson. 05, 15, 25, 35, 16, 26

11) 54 Marshes above Tonbridge, c.1944, H.W. Pugsley: not seen by me. 54

12) 94 Hothfield Common, 1903, H. Lamb **MNE**; 1943-62 **MNE**. 13 Gibbons Brook, 1954 **MNE**. (Pl[ant] with forked spikelet, 1943.) 94, 13

13) 73 Frizley Bog, 1909 JS **TLS**; 1944! 1949! FR and ECW **MNE** (vc16). (T[unbridge] Wells, WWR **TLS**.)

14) [Reported from Breeches Pond, Tenterden, in Fl. Kent.]

15) 01 Hoppen Pits, Denge Beach (I, II, III and VI) 1946-62 **MNE**. 01

C. vesicaria L.

15, 16

13/51

[Bladder Sedge]

Native. River- and stream-banks and pond margins, usually on clayey inorganic substrata of non-calcareous, neutral to weakly acid water. Very local: almost confined to the Weald, where it is frequent on the Weald Clay of 11) and 12), and in the High Weald occasionally in 13), rare in 14). It is rare lower down the Stour in 12) and unknown today elsewhere in the County. Distribution-pattern similar in Surrey and Sussex; very rare in Essex and Pas de Calais.

1) Sparrow Fields, F. & C.A. Swain.

4) Fordwich Meadows, 1949, E. Robinson.

10) Westerham Wood, 82!

11) 54 R. Eden NE of Chiddingstone. 44 W. of Chiddingstone, 1947. 44 Edenbridge, 1947. 54 By Eden, W. of Penshurst 1944 **MNE**. 54 Straight Mile, Leigh. 54 Marsh ditches W of Tonbridge 1944 **MNE**. 64 E of Tonbridge, 1944 **MNE**. 74 Pond S. of Yalding, by B2162. 64 N. of Beltring, 1944 **MNE**. 64 Pond $\frac{3}{4}$ m E. of Hale Street, E Peckham, 1952 **MNE**. 84 In Sallow carr round Pond 1m E of Headcorn, 849437, 1949 **MNE**, 1962. 84 Smarden. 84 Beult S. of Ch[urch], Headcorn, 831440, '62. 84 W Leighbridge Pond Headcorn, 813454, '62. Beult W of Cross at Hand, 1963. 94. 44, 54, 64, 74, 84, 94

12) 93 Pond, Stubbs Cross, E.S., 1952 **MNE**. 04 By Lake, Mersham Le Hatch, 1960, FR and ES **MNE**. W of Kingsnorth. 04 N. Smeeth RAC. 93, 04, 15

13) 53 Stone Cross Gill, Ashurst, 518381, 1960, CAS. 54 Gilridge, W. of Penshurst, in small swamp, 1944. 63 Field opposite Manor, Lamberhurst, 1940, JRW. 73 By lake, Bedgebury Pinetum, 1961, E.G.P. **MNE**. 44 Furnace Pond, Cowden, 1895, **MNE**. 73 Angley Wood, in swamp 1955 **MNE**. 63 (vc14?) Bayham Abbey, by Teise, F.R. Browning 1938, JRW 1941, CAS 1960. 53, 63, 73, 83

14) 83 Breeches Pond, Tenterden, 1947, RAC. Robhurst Fm, High Halden, RAC.

C. pendula Huds.

15, 16

36/51

{Pendulous Sedge}

Native. Deciduous woodland, mainly of oak, alder or hornbeam, on heavy, mostly non-calcareous, clay soils, usually gleys; abundant through the High Weald of 13) and 14), the Weald Clay areas, and the spring lines of the L[owe]r Greensand, and on the Gault in 10), 11), 12) and 16): locally common on Eocene clays and loams in 3): now rare in 1): a solitary locality on Woolwich Beds in 2) (Newington, Hawes Wood): absent elsewhere, in the chalk districts 8)-9) and the marsh districts 2), 4) and 15). It has a similar distribution pattern in Surrey and Sussex. In Essex it is widespread on the clays throughout the inland parts. In Pas de Calais it is largely confined to the Boulonnais and the NE.

1) 47 Kennel Rd, Sidcup, RM Burton. 47 Abbey Wood, G.M. Brown, 1958. [Moor copse, Bickley, to 1957 **MNE**: then destroyed.] {Hayes, DMCC, destroyed.] 36 Spring Park Wood, W. Wickham, D.P.Y. Old Rd. cutting on clay, W. Wickham, 1955, JM Sherwell. Ruxley Pits, S&S. 36, 46, 47

2) 86 Hawes Wood, Newington, 1959, on Woolwich Beds **MNE**. 86 R[are]

3) 05 Hawkins Wood, Chilham 1944 DHK. 15 Brotherhood Wood. 16 Thornden Wood. 16 Clowes Wood. 16 Dengrove Wood. 15 Bigbery Wood. 15 Canterbury Golf Links. 05 N. of Dunkirk. 15 Oldridge Wood. 15 Trenley Park Wood. 05 Fishponds Wood 097581. S. of Stodmarsh Court Fm, REW. 16 Chestfield, PRB. 06 Blean Wood N of Dunkirk '55. 25 Pine Wood, Littlebourne '58. 26 Wood N of Hersden '55. .25 Hill n[ea]rby Elbridge Cross Rds, B.N. 05, 15, 25 (rare), 06, 16, 26 (rare)

5) Betsoms Hill on clay, RAC.

8) Reinden Wood, 1959, B.N. and DACL, on clay with flints.

10) 45 Westerham Wood, 82! 55 W. of Kemsing. 45, 55

11) 66 Ryarsh Wood. 66 Birling Place. 66 In Birling Village, 1943 **MNE**. 85 Sandhurst Wood. 85 Kiln Wood, Lenham (Sandgate loam) '62. 65 Wood on Ath[erfield] Clay SW of Mereworth '55. 64 Starve Crow Woods Tonbr[idge] by str[eam] '55. 54 Yinbridge Castle grounds 55. 922430 The Forest, Pluckley DMCC. 64 Ditch in Marshes E of Tonbridge, 1944, **MNE**. 893406 Handen, Smarden, DMCC. 65, 75, 85, 66, 74, 84

12) 04 Below Cuckoldscoomb, Brook. 04 Cadmans Wood. 04 Brabourne Coomb. 13 Hayton Wood Monks Horton (gault) '55. 14 Stowting Meads, 1954 **MNE**. 03 Rd $\frac{1}{2}$ m N. of Ham St[reet]. Wood SW of R[ai]l[wa]y W of Sellindge RAC. Chilham Castle, Wood, by lake RAC. 94, 04, 14, 03, 95 (rare)

13) 44 Wood NE of Cobhambury, Edenbridge, 55 (clay). 54 Ashour Wood. 54 Redleaf, N. of Penshurst. 63 Bayham Abbey, FRB. 64 Pembury Wood, Wet area near Pond. 64 Cinderhill Wood. 63 Copse R. Teise (alluvium) Hoathly 55. 53 Stone Cross Gill, Ashurst, 518381, 1960, CAS. 56 Wet Wood, South Park, Penshurst, 62. 54 Bidborough FRB 1962. Shadwell Wood, Bullingstone, 1966. W of Bidborough Ch[urch], HNC. 54 R[oa]dside copse, The Grove, Penshurst 1944 **MNE**. Birch Wood Bidborough 540430 (Wadhurst Clay) CEH. 74. 1961, CAS. 64 Boggy Wood SW of Pembury (clay) 614395 PCH. 63 Reise S. of Lamberhurst Church 684365, 1960, CAS. Combwell Wood 1979. 44, 54, 64, ~~74~~, 53, 63, 73

14) Robins Wood, Cranbrook, 1944. 73 Parsonage Wood, Benenden. Breeches Pond RAC. Moor Wood, Benenden in valley on clay, 62. 72 Copse SW of Lit[tle] Conghurst, Hawkhurst, '55 (alluvium). 72 Wood W of Sandhurst Cross (Wad[hurst] C[lay]). 72 Gill wood NW of Sandhurst Cross (Wad[hurst] C[lay]), 1958. 72 Gill W of Down gate, Sandhurst. 82 College Wood, Wittersham 897265, '62 (Wad[hurst] C[lay]). 92 Rook Wood, Wittersham in gill bottom on clay, '62. 92 Shaw bt B2082, Underhill, Wittersham, on loam, 62. 93 By Str[eam] in Gill W of Tophill Fm, Wittersham 62. Alder carr(Wad[hurst] C[lay]), Farnell Wood, SW of Rolvenden '62. 83 Knock Wood, Tenterden by rd, ... on clay, 62. 93 Gill Bottom, S. of Pigeon Hoo, Tenterden, 62. 82 Bates Gill, Wittersham. 82 Bates Gill N of Wittersham. 82 Gill N of Sandhurst Village, Alderden Wood. 92 Owley, Gill Wood, Wittersham. 93, 82, 72, 92

16) 03 Aldington Knoll. 13 Coombe Wood, Etchingill. 13 Postling Wents. 13 Asholt Wood. NE of Asholt Wood by str[eam]. 23 Holywell, Fplkestone. Wood W. of Hythe on Ath[erfield] Clay. Brockhill Park DACL. **13, 23**

C. silvatica Huds. 15, 16 47/51 [Wood Sedge]

Native. Deciduous woodland on a very wide range of soils, from Beechwoods on chalk and Ashwoods on ragstone to damp oak and alder woods: absent from unflushed waterlogged gleys (where it is replaced by *C. remota* and *C. pendula*) and from very acid soils (pH below about 5.5), and its abundance in a site generally indicates good aeration, fair water supply, and reasonable base-content. Common throughout Kent wherever there are old woodlands, thus absent from the marsh districts 2), 3) and 15). (apart from woods on Tertiary outliers in 2) and 4)). Absent from Sheppey. In the Heathy Oakwoods of *Quercetum petrae* type on Greensand and Hastings Sands, it is confined to gills, puddle tracks, hollows, and flushes where the base-status of the soil rises. Common in all adjacent counties and in N. France.

1) High Wood, Crofton PCH. O[ccasional] Abbey Wood GAM '54. Joydens Wood PCH. Farningham Wood, PCH. Holwood Park. Beckenham Place PCH. Shooters Hill Woods GMB. Hollows Wood, Chelsfield. W. Wickham Woods, 1916, AGD, **MNE**. NW part of Petts Wood, Chislehurst, 1954 **MNE**. **82!**

36, 46, 56, 37, 47, 57

2) 87 Copse N of Fenn Street, St Mary Hoo, 1955 **MNE**. Hawes Wood, Newington. **87**

3) 16 Thornden Wood. Bishopsden Wood. Church Wood SE. 15 Bigbery Wood. 15 Trenley Park. 15 Old Park, Canterbury '55. Wood S. of Dunkirk. 26 Shelving Wood Hoath 1962. 06 Wood 1m N. of Dunkirk, 1955 **MNE**. **05, 15, 06, 16, 26**

5) Pilots Wood, Shoreham, PCH. Wood W. of Shoreham PCH. Darwins Bank (Hanging Grove) Downe. Jewells Wood, Biggin Hill, 1915, AGD **MNE**. W of West[erha]m Hill 426577, RAC. Well Wood, S. of W. Wickham 3964, PCH.

6) The Thrift, Bean PCH. 581730 Darenth Wood. Lords Wood Darenth. Swanscombe Wood. Mounts Wood. Vigo Woods.

6E) Cockham Woods DMCC. Ladies Close Wood. Chattenden Wood. Great Wood, Cobham. G[rea]t Crabbles Wood, Shorne. Randall Wood. **66, 67, 77**

Dunstable Woods, Shoreham, PCH. Preston Hill, PCH. Whitehorse Wood. North Wood, Bush, 1944 **MNE**. Wingate Wood, Halling 1943 **MNE**. Merralls Shaw.

7) Bredhurst Hurst, '55. Squirrels Wood, Stockbury. Westfield Wood. Above Queen Down Warren 1954, ATT and FR **MNE**. Purple Hill. Copse below Purple Hill '55. **76, 86, 96**

8) Hangers NW of Westwell '62. Larkey Valley Wood RGW. In copse on loam and on clay N of Bavinge '62. Wood W. of Podlinge (loam) '62. Winterage Wood Acrise, 1963 DACL. Garden Wood Acrise, 1963 DACL. Copse by Halfway Ho[use], Barham on A2, '55. Coombe Vale Dover (1st wood). Wolverton Wood, Alkham. On chalk on valley side Reinden Wood '62. Oak Wood (ch[al]k) E side Goodnestone Park '62. Cast[anea] copp[ice] (loam) Goodnestone '62. **36**

10) Westerham Wood 1947. Scords Wood. **45, 55**

11) Scarp, Rooks Hill, 55. Wood SE L[owe]r St Clere '55. Ryarsh Wood. Larkfield Heath, Mereworth Woods. Horish Wood. Holt Wood '55. Warren Wood. Oaken Wood Rd, Barming '55: HL 1895 **MNE**. Kiln Wood, Lenham, '62 (Alnetum). **65, 75, 85**

Millbay Wood, Nettlestead. N. of Bough Beech '55. 863438 N of Marley Fm Smarden DMCC.

12) Copses S. of E. Lenham. Willesborough Lees. Near Pond, SW of Sellindge Ch[urch], RAC. Cuckoldscoombe '97. **94, 04, 03, 95**

13) NE of Cobhambury, Edenbr[idge], 1955. Redleaf N. of Penshurst. Lamberhurst Quarter. Brookhurst Wood / Vauxhall Lane Southborough HNC. Shadwell Wood Speldhurst. Wetwood, South Park, Penshurst '62. Stone Cross Gill, Ashurst, 518381, 1960 CAS. Timberley Wood JRW. Bayham Abbey CAS. Combwell Wood. **44, 54, 64, 74, 84, 53, 63, 73, 83, 93**

14) College Wood Wittersham (Ash. S.) 897265, '62. Rook Wood Wittersham n'62. Gill W of Tophill Fm, Wittersham '62. Gill S. of Pigeon Hoo, Tenterden 62. Knock Wood Tenterden by Rd '62. Butners Wood Appledore '62. In Gill ¾ m E. of Rolvenden 1954 **MNE**. Gill NE of Benenden 1954 **MNE**. **72, 82, 92**

16) Postling Wents. Asholt Wood. Coombe Wood. Lympne Park Wood. N of Asholt Wood. Holywell Folkestone BW. **13, 23**

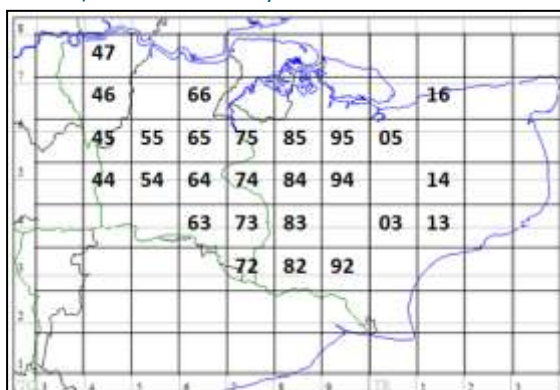
C. strigosa Huds. 15, 16 26/52 [Thin-spiked Wood Sedge]

Native. Damp deciduous woodland on base-rich soils, mainly in calcareous or basic flushes in *Alneta*, but also in rides: widely distributed in the Weald, mainly in gills on the Wadhurst Clay of 13) and 14) (becoming rather common eastwards about Tenterden to Oxney); on the ragstone of 10) and 11), and on the gault of 11) and

12); also occurring on the Eocene, particularly on the glauconite Thanet Sand and the Woolwich Beds, in six localities in 1) and 3); far rarer on the Weald Clay of 11) and 12) where it is always associated with flushed sites. It extends westward into Surrey along the gault, but is rare there: in Sussex it is frequent in gills, and occurs on the Weald Clay and Greensand as well. Rare and local in Essex. Rare in Pas de Calais on Wealden and Jurassic strata in base-rich *Alneta*. It is far commoner in the Wealden region than elsewhere in Britain.

1) 46 [High Wood, 441657, Crofton, 1954 **MNE**: wood destroyed 1961.] [Charlton Wood, Hb. **Dill.**] 46 Petts Wood, 1954 **MNE**. 47 Ice House Wood, Scadbury Park, Chislehurst, 1959 **MNE**. 46 [Moor Copse, Bickley, 1957 **MNE**, destroyed 1957.]

3) 16 Dengrove Wood, Sturry, 1955 **MNE**. 05 Joan Beech Wood / N. of Up[pe]r Ensinge, in ride on Wool[wich] Beds, 1957 **MNE**.



46, 47

10) 45 Crockham Hill, LNHS (by stream to SW, 1953!). 45 Quinten Wood, S. of Toys Hill 1960 **MNE**, 417514. 45 Scords Wood, S. edge, in Alder Carr, 1957 **MNE**. 55 Martin Wood, W. of Ightham Mote 1957. 45 S. of Everlands, W. of Bayleys Hill, 1960 **MNE**. 55 Str[eam] N. of Dibden, 1969. 55 Springs S. of St Julians, Underriver, 1960. SE of Bayleys Hill, 517517, 1959, RAC. Westerham Wood, 82!

45, 55

11) 66 Ryarsh Wood 1943!, '46 **MNE**. S. of Wrotham Water, c.1960. 74 Wood S. of Boughton Monchelsea (Ath[erfield] Clay/Rag[stone] spring line) 1954 **MNE**. 85 Snarkhurst Wood, Hollingbourne, 1944 **MNE**. 65 Wet copse E of Pizien Well, Wateringbury '57. 75 Quarry Wood, W. Farleigh, 1957 **MNE**. 85 E. of Chegworth, 1954. 85 A[bundant] Alder carr, Kiln Wood, Lenham, '62. 494509, S. of Hanging Bank, F[olkestone] sand, RAC. 499486 Bayleaf RAC. 94 Park Wood, SW of Pluckley, 1954, 1956 **MNE**. 84 Copse by Beult, Kelsham, Headcorn, 1956 **MNE**.

66, 74, 84, 94, 65, 75, 85

12) 95 Copse on Gault SE of Lenham 1944-45 **MNE**. 03 Bourne Wood, Orlestone (W[adhurst] Clay) 1957 **MNE**. 03 Wood W. of Bilsington (W[adhurst] Clay) 1959 **MNE**. 14 S. of Stowting, copse by stream on Gault, 1947 **MNE**.

03, 95, 14

13) 44 Greybury Gill 1954 **MNE**. N.E. of Cobhambury, Edenbridge. 44 SW of Chiddingstone Hoath 1954, **MNE** (487423). 54 Meadow Wood, Bidborough. 64 Playfoots Gill, Matfield, 1952 **MNE**. 63 SW of Kippings Cross in gill, 1954 **MNE**.

63, 44, 54, 64

14) 73 Parsonage Wood, Benenden, 1957, Wad[hurst] Clay. 33 Gill 1m E of Rolvenden, 1954, Wad[hurst] Clay. 33 Lit[tle]Pix Hall, Rolvenden, 1954, Wad[hurst] Clay. 83 In gill on Wad[hurst] Clay, NE of Benenden, 1954 **MNE**. 83 ½ m NE of Penhill, Tenterden, 1949 **MNE**. 897366 in copse SW of High Halden Ch[utch], 1958 RAC. 72 Wood NW of Sandhurst Cross, 1958 **MNE** (Wad[hurst] Clay). 92 Gill Wood, Owley, 1951-54, **MNE**. 82 College Wood 62, Wittersham, on Wad[hurst] Clay. 82 Cuckoo Wood 62, Wittersham, on Wad[hurst] Clay. 82 Bates Gill 58, Wittersham, on Wad[hurst] Clay.

72, 82, 92, 73, 83

16) 13 Lympe Park Wood, 1949.

13

C. flacca Schreb.

15, 16

47/51

[Glaucous Sedge]

Native. Grassland and scrub on chalk, abundant and very constant; fens and fen-meadow, common; basic grasslands on sand and clay soils, less common and usually in open associations and near the sea. Well distributed and generally frequent throughout Kent, except on alluvial flats in the Sheppey-Grain Thames-Medway estuary below Rochester and Greenhithe, and the inland parts of Romney Marsh. Not about Appledore, Minster, Grain, (Gravesend).

1) 47 Chislehurst. 46 Keson Common, 1940, F.R.B. 36 Wickham Wood, AGD 1916 **MNE**. 46 Holwood Park, 1945 **MNE**. Ruxley pits S&S. 57 Joydens Wood, PCH. 07 on L[ondon] Clay, Warden Point, 1918, AGD, **MNE**. 07, (**NOT** 87), (**NOT** 97), 47, 36

2) 76 Holborough Marshes.

3) 05 Grassland N. of Dunkirk. 05 Grassland NE of Rhode Common. Ellenden Wood, Penn Hill REW. 16 Thornden Wood. 15 Marsh on hills W. of Fordwich. 16/110650 ...on clay, Duncan Down, Whitstable, 1961, HMW.

06, 76

4) 35 Ham Fen. 35 Hacklinge Fen 1946 **MNE**. 45 Worth Minnis. 25 N. of Wingham. 26 Preston Marshes. 35 Dune Slack S. of Hotel, Sandwich Bay.

35, 26, 36

- 5) 46 Darwins Bank, Downe. 56 Pilots Wood PCH. 45 NE of Pilgrim Ho[use], Westerham, 1962. Down, 426577, W. of West[erha]m Hill RAC. **45, 46**
- 6) 57 Darenth Wood, PCH. 66 Down E of Molehill Wood, Buckland, '61. 56 Shoreham Rifle Range; and Downs above, PCH. 56 Magpie Botton PCH. 56 Greenhill Wood, PCH. Wrotham Water Down. Trottiscliffe Down. 66 Down S of Great Wood, Cuxton, 1944 **MNE**. **55, 65, 56, 66, 57, (NOT 67), 77**
- 7) Scarborough Spur / Church spur, Burham Downs. Down above Waterworks, Boxley, 62. Boarley Warren. Pilgrims View, E of L[owe]r Bell 62. Down E of White Horse Stone, 62. Bluebell Hill 44 **MNE**. Downs in Filmer Wood '62. Down S of Spuckles Wood, Stalisfield, 62. Base of Hangers NW of Westwell, '62. **75, 85, 95, 05, 76, 86, 96**
- 8) Wye Crown, '60. Broad Downs '62. Down NE of Giddy Horn '62. Down N of Podlinge 62. DownNW of Misling Fm, Elmsted, 62. Free Down, 1962.
- 10) Westerham Wood 1977, 82!
- 11) Allington Wood, 1881 **MNE**. Kiln Wood, Lenham BD. 563482, R[ai]l[wa]y bank, Hildenborough, 1960, CAS. 813454, Pond bank, Leighbridge, Headcorn, 1962. 863438, N of Marley Fm, Smarden, DMCC. Pluckley Brickworks, EB. **74, 84**
- 12) Meadow SW of Sellindge Ch[urch] RAC. Stowting Marsh, 1954, **MNE**. Cuckoldscoombe 1995. **93, 03**
- 13) Ditch, Chittenden Wood, 1944 **MNE**. Modest Corner / Vauxhall Lane, Southborough, HNC. [Old pit, Spelmonden, 1903 JS **TLS**.] **44, 54, 64, 53, 63, 73, 83**
- 14) Penhill, 1947. Marsh in Gill 1m E. of Rolvenden, 1954. **72, 82 (NOT 92)**
- 15) 01 Marsh E. of School, Dungeness, 1962. Romney Warren. NE of Dymchurch. By canal, St Marys Bay, LJM. **01, 02**
- 16) Holywell. Aldington Frith, 1950. Gault, Folkestone Warren, BN.

C. panicea L. 15, 16 23/51 [Carnation Sedge]

Native. Fens, fen-meadows, basic flushes, and the more flushed parts of valley bogs: abundant and fairly constant in such habitats: usually in short vegetation and tolerant of grazing. In the alluvial marsh areas 2) and 15) it is rare, normally confined to areas of calcareous flushing. Widespread but only locally common: absent from the dry chalk of 5)-9). Commonest in the fen areas of 4).

- 1) 46 Keston Bog, J.E.L., G.M. Brown. 47 Chislehurst Common, GMB. **47, 46**
- 2) 76 Holborough Marshes. 57 Dartford Marshes, G.M.B. 06 Brackish Dike S. of Harty Ferry, 1961, H.M. Wilks. **57, 76, 06**
- 4) 35 Ham Fen, 1946-52 **MNE**, 1991. 35 Worth Minnis 1950-60 **MNE**. 35 Hacklinge Fen, 1946 **MNE**. 25 Fen N. of Wingham. 16 Westbere Marshes, 1956 **MNE**. 26. **16, 25, 35, 26**
- 10) 55 Meadow W. of Otford Rd (¼ m N. of Bat & Ball) Sevenoaks 1950 **MNE**. 56 Meadow N. of Shoreham 1954 **MNE**. **55, 56**
- 11) 65 Leybourne, 1944. 66 Birling Marshes. 65 Lunsford 1944. 35 Sandway Bog, Lenham 1954 **MNE**. **65, 85, 66**
- 12) 94 Hothfield Common, valley bogs, 1943-62, **MNE**. 04 Fen-meadows, Cuckoldscoomb, Brook. 04 Marshes W. of Blackwall, Willesborough, 1955 **MNE**. 14 Stowting Marsh 1954 **MNE**. [Stream E of Lenham, AHWD, 1893 **TLS**.] 13 Gibbons Brook, 1945-54, **MNE**. **94, 04, 14, 13**
- 13) Vauxhall Lane, Pentecosts Field, Southborough, HNC. 53 Hawkenbury Bog, JRW: 1945! 1958 ..S. 63 Field below Ellis Wood, Lamberhurst, 1942, JRW: 1957! **MNE**. 83 Chittenden Wood, 1943, JRW: 1944 **MNE**. [T[unbridge] Wells WWR **TLS**.] R[ai]l[wa]y W of T[unbridge] Wells West Sta[tion] CAS. **53, 63, 83**
- 14) 83 Penhill Marsh, 1947.
- 15) 01 Hoppen Pits, Denge Beach, 1945-1956 **MNE** 1962. 01 Marsh E. of old school, Dungeness. **01**
- 16) 23 Valley fen, Darnley Vale, Cheriton, 1955 **MNE**. **23**

[**C. depauperata** Curt. ex With. [16] [Starved Wood Sedge]

Formerly native of Charlton, but long extinct, where it occurred in dry woodland on Eocene strata (probably calcareous Thanet Sand). Still found but very rare, on Bargate limestone at Godalming in Surrey: elsewhere in Britain only in Somerset (Axbridge) and Anglesey.

- 1) Charlton Wood, Curtis: 1787, Withering; ex Hb. Ed. Forster **BM**; ex Hb. Carrington **BM**.]

C. laevigata Sm. 15, 16 15/51 [Smooth-stalked Sedge]

Native. Weakly acid, base-deficient flushes in woodland, usually *A/neta*; abundant in the greater part of the High Weald of 13) and 14), though rarer westward and absent from the Oxney-Newenden area; scattered on the Folkestone Sand in 12), where it is found in open bogs as well as in carrs; locally common in the SW part of the Blean woods in 3); unreported elsewhere. A characteristic High Wealden species, abundant throughout

the Sussex High Weald except in the extreme east; rare in Surrey (*Alneta* on Hythe Beds), very rare in Essex (Woodham Walter); once recorded, possibly in error, from Pas de Calais, but in the Ardennes.

3) 05 Church Wood, Dunkirk, 1949. NW of Harbledown RGW. 05 S Bishopsden Wood, 1950, **MNE**. 15 Homestall Wood, 1954. 15 Bigberry Wood, 1954, **MNE**. 05 Denstall Wood, 1956. Court Wood. 05 Joan Beech Wood, N of Up[pe]r Ensinge, 1957 **MNE**. 05 Iron Hill, Boughton, 1957 **MNE**. 06 Blean Wood, N of Dunkirk, 1945. Hill top SE of Winterbourne, Boughton. Hunstead Wood, by stream, 1965. Fishpond Wood. Clowes Wood. Ellerden Wood. 05, 15, 06

12) 94 Hothfield Common, E.S.M.: in the North bog, in poor fen, 1945-62, **MNE**. 94 Ashford Warren, N. of R[ai]l[wa]y, W.R.J.; 1945! 94 Alder Carr, S of Potters Corner, E. Scott, 1953. 03 Stonehill, Sellindge, 1954, **MNE**. 13 Gibbons Brook, 1945-54. 04 Barrack Wood, Mersham-le-Hatch, 1960, FR, and ES. 03, 13, 94, 04

13) Scarletts Pond Cowden, 1947. 44 Furnace Pond, Cowden, 1947. 634 Pembury Wood, bog near Pond, 1947+-52; 1961, C. Stace. Corks Pond, Matfield. 64 Cinderhill Wood, Brenchley, 1947. Cryalls, Brenchley. 63 Bayham, 1945. 53 Hawkenbury Bog. 63 Lamberhurst Quarter, JRW 1944-46 **MNE**. Old Park Wood, Goudhurst 1954 **MNE**. 63 Kilndown Wood. 73 The Pinetum, Bedgebury 1943 **MNE**; EGP 1961 **MNE**; 1962.. 73 Combwell Wood, 1945; 1979. 63 Chingley Wood. 83 Causton Wood, Biddenden 1941 **MNE**. 54 Roundabout Wood, T[unbridge] Wells 1943, JRW. 54 Shadwell Wood, Speldhurst, GE Shaw. 63 Tongs Wood, JRW. 63 Ellis Wood, 1941, JRW. 63 Timberlog Wood, 1941, JRW. 54 Broke Wood, Southborough, 1954 **MNE**. 63 Carr in Wood SW of Pembury, 614395, PCH. 64 Furnace Pond, Horsmonden, 1954 **MNE**. 73 Frizley Bog, Cranbrook, 1945 **MNE**, 1961. Wesketts Wood, JHL. 83 Chittenden Wood, 1944-1958. 83 Rogers Wood, Biddenden, 1954 **MNE**. 53 Stone Cross Gill, Ashurst, 518381, 1960 CAS. Redleaf Wood, N. of Penshurst, 1947-50. 64 Hayes Wood, Pembury. 64 Cole brook Park, Pembury. 64 Playfoots, Matfield, 1952. Gedges Wood, Matfield 1961 CAS. 74 Wood S. of Hartsheath Fm, NE of Curtisden Green, 1958. 73 Brewers Wood. 83 Sissinghurst Park Wood. 83 Rounds hill Park Wood. 73 [Finchcocks 1909 JS **TLS**.]

14) 83 The Brogues, Biddenden. 83 Sand pits Wood, Biddenden, 1963. 83 Marsh E. of Penshill, 1947. 83 In alder Carr, Farnell Wood, SW of Rolvenden, '62. 83 Alder Carr, Knock Wood, E of Tenterden, '62. Robins Wood, Cranbrook. 44 Greybury Gill, EP. 63 Greggs Wood. 53, 63, 73, 83, 44, 54, 64, 74

C. binervis Sm. 15, 16 14/51 [Green-ribbed Sedge]

Native. Sheltered ground on heaths, heathy oak-birch or pine woods, often in the rides: very local, and largely confined to the High Weald of 13) and the NW part of 14), where however it is frequent and locally abundant: outlying areas of distribution exist in the rather similar habitats of the Blean Woods in 3) and at one locality each on heaths in 1) and 12). Common in the High Weald of Sussex, local in Surrey, vey rare in Essex and very local in Pas de Calais. This is a highly oceanic species, requiring a humid atmosphere: it quickly fades out as one passes into the Continent.

1) Keston Common, in wet-heath by bog, E. de C: 1945-58 **MNE**. Spring Park, W. Wickham, D.P.Y. Chislehurst Common; Holwood Park, WCRW. Petts Wood, 1951, J.D. Lovis. 46, 36, 47

3) Damp grassy heath, 1m NW of Dunkirk, 1945. Church Wood, in heath, R.G.W. (SE part). Bigbery Wood, P.R.B. Minching Wood, in heathy ride, 1956 **MNE**. Perry Wood, Selling, Stowell: Fl.K. 06, 05, 16, 15

(4) Ham Ponds, ESM: error for *distans*.)

10)

12) Hothfield Common, 1946; 1954 **MNE**. (Recorded from Barrack Wood, Mersham by G.E. Smith in FGEK; we could only find *laevigata* there, which he does not record; FR & ES, 1960.) 94

13) 54 Broke Wood, Southborough, 1954 **MNE**. 64 Pembury Wood, bog by pond, 1952 **MNE**; 1961 CA Stace. 53 Hawkenbury Bog, JRW 1943; 1944-46! CAS, 1958. 63 Kilndown Wood, 1945-60. 73 Combwell Wood...1962; 1979. 63 Chingley Wood 1944-60. 73 Bedgebury Pinetum 1954 **MNE**, 1961 EGP **MNE**. 73 Bedgebury Forest, 1941, JRW; 1945-62. 83 Chittenden Wood, 1943, JRW; 1944-58! **MNE**. 83 Causton Wood. 64 Cinderhill Wood, Brenchley, 1947-. 73 Brewers Wood, Cranbrook, 1944-60. 73 Angley Wood, 1945-63 **MNE**. 73 Oaks Wood, Cranbrook, 1944 **MNE**. 83 Sissinghurst Park Wood. 54, 64, 53, 63, 73, 83

14) 83 The Brogues, Biddenden. Brook Wood, NW of Woodchurch.

C. distans L. 15, 16 18/51 [Distant Sedge]

Native. Fens, meadows, marshes and their dikes, in brackish habitats near the sea and estuaries, and in calcareous habitats inland; uncommon, occasional near the coast and estuaries in 2), 4), and 15), inland frequent in 4), local in 12) and 16). It resembles *Oenanthe lachenalii* and *Schoenus nigricans* in its tolerance of both sodium- and calcium-rich environments. Local near the coast in Sussex, Essex and in Pas de Calais in similar habitats: extremely rare in Surrey.

- 2) 67 Northfleet Brooks, 1944, **MNE**. 77 Meadows S. of Cliffe Station, 1943. 76 Holborough Marshes, 1944 **MNE**. 76 Snodland Marshes, 1944. 06 Meadow N. of Oare Mill Pond, 1959 **MNE**. Shellness. 06 Harty, 1946. 87 Grain, 1946. 66, 76, 57, 67, 77, 87
- 4) 26 E. of Reculver, 1946. 25 Fen N. of Wingham, 1946-49 **MNE**. 35 Hacklinge Fen, JPMB: 1946, abund[ant]; 1962 **MNE**. 35 Worth Minnis, 1947-50 **MNE**; 1960. 35 Northbourne Fen, 1947 **MNE**. 35 Ham Fen, 1954 **MNE**, 1958 **MNE**. 16 Westbere Marshes, 1956 **MNE**. 26 Preston Marshes 1947. 26 Dike N. of Stuart, 270685, 1962. 35 Sandwich Bay, in dune slacks to W of Princes, 1946 **MNE**. 35 Deal Links, 1954 **MNE**. 36 Minster Marshes, L.W.W., 1946. 25, 35, 16, 26, 36
- 6) 57 Chalk pit, Swanscombe, 1947 **MNE**.
- 7) Chalk pit (flooded), Eccles, 1953, RGW.
- 11) [Birling Marshes, 1943 **MNE**, ploughed up, 1944.]
- 12) 14 Stowting in fen meadows, 1946-54 **MNE**. 04 Brabourne coomb, in fen-meadows 1946. 04 S. of Brabourne Church, 1954 **MNE**. 04 Cuckolds coomb, Brook, in fen-meadow, 1945-58 **MNE**. 94. 94, 04, 14
- 15) 02 Brackish marsh SW of Littlestone, 1946. 13 Shingle lows SW of Hythe, 1947, abund[ant]. 13 Sea wall, NE of Dymchurch, 1947. 02 Behind dunes, Greatstone, 1947. Sandy hollows behind. 13, 02
- 16) South Brooks, Denge Marsh. 13 Calc[areous] Marsh, the Lince, SE of Etchinghill, 1958 **MNE**. 01

C. distans x extensa = C. x tornabenii Chiov.

- 15) Littlestone, 1902, in Hb. **G.C. Druce** (as *C. extensa*) det. J.P.M.B.

(**C. punctata** Gaudin¹³⁰)

C. extensa Gooden. 15 1/51 [Long-bracted Sedge]

Native. Sandy salt marshes and saline dune-slacks: very rare; abundant at the mouth of the Stour, but occurring nowhere else at present. Absent in Surrey; very rare in Sussex (confined to the Selsey and Littlehampton areas): extinct in Essex: very rare in Pas de Calais (Ambleteuse!)

- 4) Abundant in sandy saline slacks of the dunes, 200 yards S. of Bloody Point, Mouth of the Stour, Sandwich, 1946-62 **MNE**.

[Former estuary, E. of Reculver, Hb. **JSM**: *Phyt.* N.S. VI p56. Not seen there recently: the coast is much altered since JSM's time.]

- 9) Small salting behind beach, below cliff, Cliffsend, Pegwell Bay, 1947, **MNE**.

(**C. hostiana** DC.)¹³¹

(**C. flava** L.

This "Continental" species is confined in England to Yorks and Lanc; but it occurs in the fens of the Somme in N. France.)

C. viridula Michx. subsp. **brachyrrhyncha** (Celak) B. Schmid¹³² 15, 16 5/51 [Long-stalked Yellow Sedge]

Native. Calcareous spring-fens and fen meadows in short vegetation; very rare and local, and confined to areas fed by springs from the chalk (or ragstone). Drainage tends to restrict it to dike-borders. Extremely rare in Sussex (in two localities by chalk springs), absent or extinct in Surrey and Essex: still locally abundant in fens in Pas de Calais.

(1) This was reported by me on an LNHS excursion from the uppermost lake in Holwood Park in 1948: further material collected from the same spot in 1962 by F. Swain makes it clear that what was seen was *C. demissa* Hornem.)

- 4) 25 Marshy bank of fen-dike, Wingham Fen, 1945-46 **MNE**. 35 Worth Minnis, 1947; further north l[ocally] a[bandant] 1950-56 **MNE**. 35 Ham Fen, on dike edge, 1956-60 **MNE**; 1980, A.H. to S. 25, 35

11) 75 Marsh between Church and railway, Barming (v.c.16) H. Lamb, 1900 **MNE**. The marsh exists still but I have not refound this plant. 75

- 12) 04 Calcareous fen meadow by chalk stream, Cuckoldscoomb, Brook, **MNE**, 1944-54, with *A. tenella*, etc., abundant. Both gone, 1978. 04

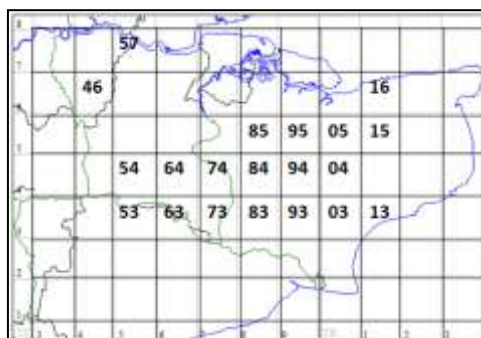
¹³⁰ No records given.

¹³¹ No records given.

¹³² Given in the manuscript as *C. lepidocarpa* Tausch subsp. *lepidocarpa* to which it has reverted after the name given here, from Stace edn. 2.

16) 13 Calcareous marsh, The Lince, E. of Etchinghill, 1950; '54-59, **MNE**, 1986!

C. viridula Michx. subsp. **oedocarpa** (Andersson) B. Schmid¹³³ 15, 16 20/52 [Common Yellow Sedge]
Native. Damp- and wet-heaths, valley bogs, damp acid woodland rides, sandy or peaty borders of acid ponds: frequent in the High Weald in 13) and 14) and on the Folkestone Sand in 12): rare on the Weald Clay and Gault in 11) and 12) and on the Eocene Sands in 1) and 3): absent elsewhere 5)-9), 2), 4, 10), 15) and 16) though it would have been expected in 10) and 16). Locally frequent in suitable habitats in Surrey and Sussex, very rare in Essex and Pas de Calais.



1) 46 Holwood Park, DMCC; 1948! 1954! **MNE**; F. Swain, 1962 **MNE**. 46 Ninham Wood WCRW. 57 Track, Joydens Wood, PCH and FR, 1954, **MNE**. 46 Keston bog, 1948. 46 Track, Sparrow Fields, Orpington, 1962, F. Swain **MNE**. 46, 57

3) 15 Acid marsh on Golf Links, Canterbury, 1948. Church Wood, SE part, RGW. 15 Ride, Minching Wood, Blean, 1957 **MNE**. 05 Wet track E of Rhode Common, S. of Dunkirk, 1959 **MNE**. 16 Near Blean Church, 1955, RGW. 15, 16, 05

4) Pit SE of Ham Fen, 1991, J. Pitt.

10) Westerham Wood 82!

11) 83 Sandway Bog, Lenham, 1954 **MNE**. 74 Widehurst Wood, SE of Marden Beech, 1958 **MNE**. 84 Ride, W. Part of Dering Wood (W[adhurst] Clay), 1962, E. Scott. Pluckley Brickworks ES. 85, 84, 74

12) 94 Valley bog, Hothfield Common, 1943-62 **MNE**. 04 Willesborough Lees, 1944-54 **MNE**. 03 Bog, Stonehill, Sellindge 1947-54. 13 Gibbons Brook, 1945-54, **MNE**. Near Spot House, 975348, 1955, ES. 93 (W[adhurst] Clay) Long rope Wood, 1946. 04 On Gault, Nackholt Wood, Brook, 1947. 95 Copse on Gault S of Lenham, 1946. S. of ... Shalne. 93 (W[adhurst] Clay) S. of Shadoxhurst, E.S. 1955 **MNE**. 04 Mersham le Hatch Park, ES and FR, 1960 **MNE**. 94, 04, 03, 13, 93, 95

13) 54 Boggy valley in wood, Redleaf Wood, Penshurst 1944-46, **MNE**. 54 Ashour Wood, Penshurst, 1944 **MNE**. Boggy Wood SW of Pembury 614395, RGW. 64 Pembury Wood, boggy area near Pond, 1952; **MNE** – 1961, C. Stace. 53 Hawkenbury Bog, JRW, 1943; 1944-46! 1958, CAS. 63 Hook Green, 1943 JRW. 63 Field below Ellis Wood, Lamberhurst, 1942, JRW, det. E.N. 73 Bedgebury Pinetum, JHL: 1948; 1954 **MNE**. Chittenden Wood, 1943, JRW: 1946 **MNE**. Shadwell Wood, Speldhurst GE Shaw. 54 Broke Wood, Southborough 1954 **MNE**. 64 Bog by Furnace Pond, Horsmonden, 1954 **MNE**. 63 Kilndown Wood, T[unbridge] W[ells] S[and], '55, F.R.B. 13 Combwell Wood, 1959 **MNE**. Bayham Woods CAS. 83 Sissinghurst Park Wood, T[unbridge] W[ells] S[and], 1948-49 **MNE**. 63 Chingley Wood T[unbridge] W[ells] S[and]. 83 Wood E. of Sissinghurst, T[unbridge] W[ells] S[and], 1954 **MNE**. Robergate Wood, T[unbridge] Wells, 1959 CAS. 53, 63, 73, 83, 54, 64

14) 83 Marsh, Penhill, 1947. 843 Knock Heath, Tenterden, 1956 **MNE**. 83 Wood (T[unbridge] W[ells] S[and]) Clappers Hill, 1m S of Biddenden, 1954 **MNE**. 93 Great Heron Wood, Kenardington, 1952 **MNE**.

15) [Lydd, 1901, H. Lamb **MNE**, det. FR.]

C. viridula Michx. subsp. **viridula**¹³⁴ 15, 1/51 [Small-fruited Yellow Sedge]

Native. Shingly lake shores: extremely rare, and only seen at intervals, Very rare in W. Sussex and SW Surrey: extinct, if it occurred, in Essex: unrecorded in Pas de Calais.

4) Stonar Beach, Sandwich. Dowker in *Fl.K.*, as *C. oederi* Retz: sp[ecimen] seen by E.S.M.: probably *serotina*. Deal Sandhills, 1883, ex hb. H.T. Messell (**BM**).

15) Very rare, on shingly shore of smallest lake, Hoppen Pits, Denge Beach, 1947, P.R.B. and F.R. **MNE**: not found since.

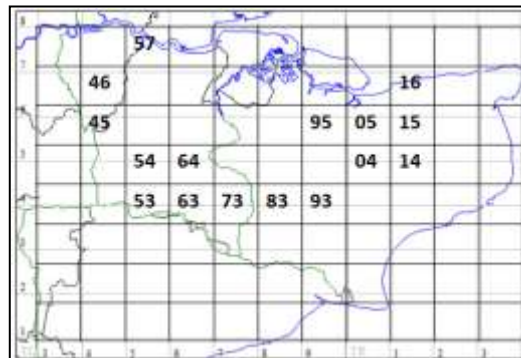
C. pallescens L. 15, 16 16/52 [Pale Sedge]

Native. Woodland on moderately damp, usually somewhat acid, loams and sands: local and rather uncommon, but widely distributed: occasional on the Eocene in 1) and 3), on Pliocene sands and loams in 8), Gault and greensand in 10), Weald clay in 12): most frequent in 13) on the Hastings Sands, where it is rather common.

¹³³ Given in the manuscript as *C. demissa* Hornem., to which it has reverted after the name given here, from Stace edn. 2

¹³⁴ Given in the manuscript as *C. serotina* Méral

- 1) 57 Joydens Wood, FR and PCH, 1954, **MNE**. 46 Holwood Park, near lakes, WCRW; 1954! **MNE**. 46 Roundabout Wood. Sparrow Fields, Orpington, 432668, WCRW; 1940, A.B. Jackson **BM**; FR and A. Swain. St Ninians Wood, Farnborough, 1921, E.B. Bishop. [Sidcup, WCRW.] Keston, PHC. 46, 57
- 3) 15 Bigbery Wood, P.R.B., 1947. 15 Church Wood (SE), RGW. 15 Pine Wood, 1955, P. Furneaux **MNE**. 05 S. Bishopsden Wood, 1950. 05 Hunstead Wood, W. Of Chartham Hatch (under Fagus) 1956 **MNE**. 16 Minching Wood, 1953 REW; 1957 **MNE**. 05, 15, 16
- 7) E. part Longbeech Wood, EP.
- 8) 14 West Wood, Stowting, 1953. 05 Denge Wood, on Pliocene loam, ½ m NE of Penny Pot Inn, 1959 **MNE**. Larkey Valley Wood, on loamy drift, 1955 **MNE**. Park Wood, L of Six Mile Tolls, E.P. 14
- 10) 45 Westerham Wood, 1947 **MNE**, 82! 45 Scords Wood, Brasted, on loam, 1955 **MNE**. 45
- 11) Wood W. Of Chiddingstone Causeway, E.P. North Frith, E.P.
- 12) 04 (near Brook). 95 Wood S. of New Shelve, E. Lenham. 93 Longrope Wood, 1946 **MNE**. 95, 04, 93
- 13) Shadwell Wood, Speldhurst, GE Shaw. 54 Redleaf Wood, N. of Penshurst, 1944 **MNE**. 63 Wood, Lamberhurst Quarter, 1946. 64 Pembury Wood, near pond, 1952: 1961, CAS. 73 S. edge, Bedgebury Forest, FR and CW 1944. 83 Chittenden Wood, JRW '43: 1944! **MNE**. 53 Stone Cross Gill, Ashurst, 518381, 1960 CAS. 64 Cinderhill Wood, Brenchley, 1947 **MNE**. W of Cowden, near ponds EP. 73 Angley Wood, Cranbrook, 1955 **MNE**. Dundle Wood, EP. 64 S. of Foxhole, Matfield, 1954 **MNE**. 63 Wood opp[osite] the Manor, Lamberhurst 1942 JRW. 63 Timberley Wood, Lamberhurst 1942 JRW. 63 Wood N. of Bayham, Lamberhurst 1942 JRW. 73 Finchcocks Wood, JS 1896 **TLS**. 54, 64, 53, 63, 73, 83



(*C. humilis* Leyss. occurs on chalk downs in West Hants., but no nearer to Kent.)

- C. caryophyllea** Latourr. 15, 16 28/51 [Spring Sedge]
- Native. Old dry pastures, grass-heath, ancient short turf on chalk, banks on wood-borders; widespread and frequent locally in the High Weald, on the Greensand, the chalk downs, and the Eocene districts, but not really common. Frequent in Surrey and Sussex, rarer in Essex, fairly frequent in Pas de Calais.
- 1) 46 Hayes Common, DMCC. 46 Holwood Park, near Lakes, 1954 **MNE**. Keston Common, G.M.B. 46, 56
- 3) 05 Grass heath N. of Dunkirk 1945 **MNE**. 05 Grassland NE of Rhode Common. 96 Bysing Wood, 1946 **MNE** 16 Thornden Wood. 06 Edge of Blean Wood, Hernhill, 1945. Harbledown RGW. 05, 15, 96, 06, 16
- (NOT 25, NOT 35)
- 6) 66 Cobham Great Wood, 1943, 1944 **MNE**. Maplescombe Valley, 1923, WCRW. Downs NE of Otford 1930 PHC. 66 Downs above Wrotham Water 1951 **MNE**. 66
- 7) 76 Burham Downs, 1954 **MNE**. 86 Queen Down Warren, 1945-60 **MNE**. 95 Timbalds Hall, Wichling, 1945 **MNE**. 85 Hollingbourne Downs, 1945 **MNE**. 95 Pilgrims Way, E. Lenham, 1958 **MNE** Gravel pit, Putt Wood, Ospringe 1945 **MNE**. 76, 95
- 8) 04 Brook Hillock, 1955 **MNE**. 04 Crundale Downs, N of Ch[urch], 1949 **MNE**. 14 Grassheath on Pliocene Sand, Stelling Minnis '62. Parkgate Down DACL. 13 Postling Down. 24 Woodville Downs, Temple Ewell, 1955 **MNE**. 291438 Field SSE of Kersney St[ation]n, KDR. 14, 24, 35
- (NOT 26, 36)
- 10) 45, 55
- 11) 65 Near N Pole, Teston, 1945. 85 Grass-Heath N. Of A.20 1m W of Hollingbourne, 1944 **MNE**. 84 Pasture on loam, Elmstone Hole, Ulcombe, 1955 **MNE**. Kings Wood, S of Harrietsham Mrs B. Dodds. [Fairlawne, Shipbourne, 1878, F.W.E. Shrivell **TLS**.] Hoads Common, 1945. 84 ('55), 65
- 12) 04 by Smeeth Ridgeway, 1945. 94 Ashford Warren. 93, 94, 04
- 13) 63 Patrure ½ m S. of Horsmonden. 53 Near Hawkenbury Bog. 73 Combwell, 1896, JS **TLS**. 63 W of Lamberhurst, freq[uent], JRW. 53 Tunbridge Wells Common 1960 CAS. Combwell Wood. Dunorlan Park, 1959 CAS. Pentecost field Southborough HNC. 54 ('55), 53 ('56), 63, 73
- 14) G[rea]t Ninevah, Benenden.

(*C. ericetorum* Poll. Is not known nearer than Cambridge and Suffolk in England, but has old records from pas de Calais.)

(*C. montana* L. occurs at Eridge, Sussex in grass-heath, only ½ mile across the present Kent border. The old Kent records in Fl. K., Bysing and Thornden Woods in 3) are unconfirmed and probably errors for *C. pilulifera*: I have searched these areas closely and only found the latter species. *C. montana* has never been found on the Kent side of the boundary near Tunbridge Wells, either in VC14 or 16: reports are due to misunderstanding of the boundary line.)

C. pilulifera L. 15, 16 31/51 [Pill sedge]

Native. Dry heathland, open heathy woodland, on more or less podsolised sands and gravels; calcifuge, common in such habitats. Common in 1) and 3), local in 6E), on the Eocene, local in 7) and 8) on the Pliocene formations over the chalk; plentiful on the Low Greensand (Folkestone Sand and Hythe Beds chert) in 10), 11) and 12); and on the Tun[bridge] Wells Sand and Ashdown Sand in 13) and 14). Absent from the marsh districts 2), 4) and 15), and from the London, Gault, Weald and Wadhurst clays. Common in similar habitats in Surrey and Sussex, rare in Essex and in Pas de Calais, where such habitats are few in number and extent.

1) 46 Hayes Common 1945 **MNE**. 46 Keston Common, 1954: 1958, FRB. Holwood Park, 1954. Crofton Heath, F. Swain, 1955; 62. 46 Hollows Wood, Chelsfield, 1945. 46, 56, 47

3) 05 Perry Wood, Selling. 96 Bysing Wood, 1946. 06 Grassheath NW of Dunkirk, 1945 **MNE**. E of Rhode Common. 16 Thornden Wood. Church Wood RGW, REW. 26. West Blean Wood REW. 16 Minching Wood, Blean 1957 **MNE**. Clowes Wood REW. S corner Ellerden Wood REW. 15 Trenley Park Wood.

05, 15, 25 (rare), 96, 06, 16, 26

5) 45 Apparently on chalk, Beech hanger ½ m S of Cudham, 1958 **MNE**.

6) 57 Darenth Wood. 66 Cobham Park, 1944 **MNE**. 66 Great Wood, Cobham 1944 **MNE**. 67 Common by Shorne windmill. 66 By A2, S. of Brewers Wood, Cobham (Thanet S[and]) 1945 **MNE** 57, 67

7) 86 Heath on Thanet Sand, Dannaway, S. of Newington, 1957 **MNE**. Syndale Wood; Coxett Wood, REW. 86

8) 04 Top of Wye Downs, on drift. 14 Covert Wood, Kingston, on Pliocene drift, 1950 **MNE**. 14 Grass-heath on Pliocene, Stelling Minnis, 62. 14 Oak wood on Pliocene, U[pper] Hardres Wood, '62. 14 Oak wood on Pliocene, SW of Lit[tle] Waddenhall '61. 14 On Pliocene, West Wood, Stowting 1956 **MNE**. Winterage Wood, Acrise, on Pliocene, 1963, DACL. 14

10) 45 Ide Hill. 55 Bichet Common. Squerries Park RAC. 45 Goathurst Common. Oldbury Hill. 55 Rose Wood, Ightham. Crockham Hill, M. Swain. Heath above Hill Bottom Wood, Sundridge, RAC. Greatness, RAC. 45, 55

11) 65 Wrotham Heath 1949 **MNE**. 65 Platt Woods. 65 Ryarsh Roughetts. 65 Leybourne Wood (F[olkestone] Sand) 1955 **MNE**. 65 Larkfield Heath. 75 Pendenden Heath (F[olkestone] Sand), 1944, **MNE**. 85 by A20, 1m W of Hollingbourne, 1945 **MNE**. Sandway Heath, Lenham, 1965, B.D. 75 Oaken Wood. 65 Warren Wood, E Malling. Kings Wood, Langley to Ulcombe. 65, 75, 85

12) 94 Hothfield Common, 1944-62, **MNE**. 04 Willesborough Lees, 1955 **MNE**. 94 Ashford Warren. 13 Gibbons Brook. 13, 94, 04

13) 53 Stone Cross Gill, Ashurst, 518381, 1960, CAS. 63 Wood near Lindridge Fm, Lamberhurst, 1943, JRW. Timberlog Wood; Ellis Wood, Lamberhurst, JRW, 1942; 1944! Free Heath; Tongs Wood, Lamberhurst, JRW, 1942; 1944! Lamberhurst Quarter, 1960, CAS. 53 Tun[bridge] Wells Common, 62 CAS. Scotney Castle PCH. Combwell Wood, 1979. 73 Bedgebury Pinetum. 83 Chittenden Wood, 1944 **MNE**. 53, 63, 73, 83, 93, 54, 64, 74

14) 83 near Breeches Pond, 1947. Angley Wood, RAC. 83 Moor Wood, Benenden (T[unbridge] W[ells] S[and]) 62. 83 Knock Wood Tenterden (Ash[down] S[and]) + Call., '62. 72 Hurst Wood, Sandhurst. 72

(*C. limosa* L.)¹³⁵

C. acuta L. 15, 16 10/51 [Slender Tufted Sedge]

Native. River banks, ponds, and swamps in rather base-rich waters: local and uncommon, and largely confined to the Medway and its tributaries and neighbouring ponds in 11), 13) and 2), and to the middle Stour in 12) and 14). Local in Sussex and Surrey, rare in Essex, rather frequent in Pas de Calais.

2) 75 Medway bank S. of New Hythe, C. West, 1943 **MNE**.

4) 16 Marsh Dike below Trenley Park Wood, fordwich, 1949 **MNE**.

10) 55 Pond, Wilderness Park, Seal, 1944 **MNE**.

11) 44 By Eden, W. of Chiddingstone '53. 54 W. of Penshurst 1944, 1953 **MNE**. 75 Medway, Maidstone, 1960, E.G.P., **MNE**. 64 Medway, S. of Yalding, 1953 **MNE**. 54 Medway, 1 mile above Tonbridge. 64 Medway bank, E. of Tonbridge, 1939, F.R.B. 64 Pond E. of Hale Street, E. Peckham, 1952 **MNE**. 65 Medway, Watlington, 1949 **MNE**. 75 Above Teston Bridge, 1959 **MNE**. 73 By Teise, Goudhurst, 1896; 1907; J. Stirling (as *C. elata*), **TLS**.

¹³⁵ No further entry given; indeed, it is difficult to see why it was mentioned at all.

12) 94 Godmersham DACL.

13) 73 Swamp, Angley Wood, Cranbrook, 1955 **MNE**.

var. **sphaerocarpa** (Attr.) Kük

11) Medway E. of Tonbridge, 1939, F.R.B.

C. nigra (L.) Reichard 15, 16 27/51 [Common Sedge]

Native. Marshes, fens, valley bogs and meadows, usually on peat, and where the water is weakly acid to calcareous (pH 5.0 – 7.5): in short sedge-grass associations (*parvocariceta*).

1) 46 Keston, JEL. 46 Hayes Common, DMCC. 47 Chislehurst Common. Ravensbourne, Bromley, AGD, 1919 **MNE**. 46, 47

2) Holborough Marshes, 1944. 76

3) 05 Alder carr bog, Hunstead Wood, Chartham Hatch, 1956 **MNE**. SE part Church Wood, REW, 1955. 05, 15

4) 35 Ham Fen, 1954 **MNE**. 35 Hacklinge Marshes, 1946 **MNE**. 35 Dune Slack S. of Hotel, Sandwich Bay, 1956 **MNE**. 25 Meadow 1/2m N. of Wingham, 1956 **MNE**. 25 Fen E of Lit[t]le Britton, Wingham, 1947 **MNE**. 16 Westbere Marshes, 1956 **MNE**. Fordwich Marshes, P. Furneaux. 25, 35, 16, (NOT 26), (NOT 36)

10) Peaty ponds, Rose Wood, Ightham, 1944-62 **MNE**. 55 Bog, Oldbury Hill, 1945. 45 Marsh by Darent 1m E of Westerham, 1955 **MNE**. 66 Meadow, Birling Marshes, 1951 **MNE**. 45, 55

11) 65 Damp heath, Valley Wood, Wrotham Heath 1955 **MNE**. 75 Marsh W of Sandling 1944 **MNE**. 85 The Brooks, Harrietsham, 1962, Mrs B. Dodds. Sandway Bog, Lenham, Mrs B. Dodds. 65, 75, 85, 66

12) 94 Hothfield Common, 1943-62 **MNE**. 04 Willesborough Lees, 1944-55. 04 Bog, Mersham Le Hatch, 1960, FR and ES **MNE**. 13 Gibbons Brook 1945-54. 13 Boggy field, Monks Horton, 1953. 03 Stonehill bog, Sellindge 1934 **MNE**. Fields SW of Sellindge Ch[urch] RAC. 14 Stowting Meadows, 1954 **MNE**. 94, 04, 03, 13, 14

13) 54 Marsh N of Redleaf, 1943, 1949 **MNE**. 53 Hawkenbury Bog, 1943, JRW; 1945!; 1958, CAS. 64 Pembury Woods. 63 Field W. of Ellis Wood, Lamberhurst, JRW; 1957! Scotney Castle, PCH. 73 Frizley Bpg. Angley Wood, Tuckers Pond swamp. 83 Chittenden Wood. [Cranbrook, 1909, AW Hudson **TLS**.] 53, 63, 73, 83, 54, 64

14) Penhill, 1947.

15) 01 Hoppen Pits, Denge Beach, abundant in fen zones, 1945-62 **MNE**. 01 Marsh E. of old school, Dungeness, 1956-62, **MNE**.

16) Darnley Vale, Cheriton, 1955 **MNE**.

01, 23

(**C. trinervis** Degl. Is abundant in dune slacks in Pas de Calais and Somme; in Britain it has a solitary record for E. Norfolk, where it seems to be extinct now.)

C. elata All. 15 2/51 [Tufted Sedge]

Native. In calcareous fens, and dune slacks: rare and local and confined to 4), but locally abundant between Sandwich and Deal, and at Wingham. Very rare in Sussex, extinct in Surrey and Essex: abundant in fens behind the dunes in Pas de Calais. Common in the East Anglian fens. This robust tussock-forming species can be recognised by its broad blunt black female glumes and membranous leaf-sheaths, which readily tear into filamentous shreds.

4) Fen remnants and sides of dikes, N. of Wingham, 1946. Wenderton, copses by str[eam], BN. Ham Fen, 1946-62 **MNE**. Hacklinge Marshes, 1946-54 **MNE**. Worth Minnis, 1947-60. Wet hollows of dunes S. of Guildford Hotel, Sandwich Bay, 1949-62, **MNE**. Dune slacks NW of Princes Club Ho[use], Sandwich, JEL.

C. pulicaris L. 14 (Kent), 15 4/51 [Flea Sedge]

Native. In flushed though acid valley bogs, as well as in alkaline fens: now very rare, though still locally plentiful. Rare in Surrey and Sussex, very rare in Essex and in Pas de Calais.

[1] Keston Bog, 1903, S.E.C. (Hb. Croydon NHS).]

4) Formerly at Ham Fen: Fl. K.; no recent records.

12) Hothfield Common, frequent in flushed part of main valley bog, 1943-64 **MNE**. Gibbons Brook, G. Walton: 1954! **MNE**.

13) Hawkenbury Bog, 1942, JRW: 1944-46 **MNE** (VC.14); 1958, CAS; 1963 R.E. Sh., 1967. Boggy ditches and rides, Chittenden Wood, Cranbrook, 1943, JRW; 1944! **MNE** 1946! 1958!

(**C. dioica** L. formerly occurred in Surrey and Sussex but appears to be now extinct in each.)

POACEAE¹³⁶

[*Leersia oryzoides* (L.) Sw. Occurs in western Surrey and West Sussex.]

Nardus L.¹³⁷**N. stricta** L.

1) Chislehurst Common, 1945 **MNE**. St Pauls Cray Common, WCRW. Keston Common, 1945-62 **MNE**. Dartford Heath, 1947.

12) Hothfield Common 1946-62 **MNE**. Willesborough Lees, 1950, **MNE**. Moory field (wet heath...) SE of Monks Horton Priory, 1953 **MNE**. Gibbons Brook, 1954, **MNE**.

13) Hawkenbury Bog, 1956, CAS. Tun[bridge] Wells Common WWR **TLS** ~~probably in Sussex~~.

Milium L.**M. effusum** L.¹³⁸

1) Abbey Wood, PCH, RAB. [Bromley AGD 1909 **MNE**.] Shooters Hill Wods, G.M.B. Wood E of Old Bexley (Bl[ackheath] Beds) 1955 **MNE**. Moor Grove, Bickley, 1957 **MNE**. Beckenham Place, PCH. Sparrow Fields, Swain. Farningham Wood 82. Hollows Wood, NW of Shoreham, 1945.

2) Holly Hill REW.

3) Thornden Wood, Blean, 1945 **MNE**. Dengrove Wood, Sturry 1955 **MNE**. Shelving Wood, Hoath, on Oldhaven Beds, 1962. Denstroud Wood, 1956, **MNE**. Perry Wood, DHK. Bigberry Wood RCW. Church Wood RCW. Boughton Hill RCW.

5) Jewells Wood, Biggin Hill, 1949 **MNE**. W of Westerham Hill 426577 RAC.

6) Whitehill, E of Shoreham 1945 **MNE**. Wood near Ch[urch], Fawkham, Swain; DVS Woods.

7) Bredhurst Hurst 1945 **MNE**. Trundle Wood Wormshill 1956 **MNE**. Filmer Wood (valley bot[om], sandy loam) '62. q DW. Wood. Squirrels Wood '45. Kings Wood, Bilting DHK.

8) Larkey Valley Wood, 1955 **MNE**. Brabourne Downs top. Wood S of Crundale Ch[urch] DHK. Top Reinden Wood (Pliocene loam) '62. Frandham Wood KDR. W. side Covet Wood DACL. Coombe Vale, 1955, 2nd wood to W.

10) Westerham Wood. Brasted Chart, 1957 **MNE**.

11) Ryarsh Wood. Longham Wood 1944 **MNE**. Hoads Wood.

12) Hinxhill.

13) Shadwell Wood Speldhurst, GE Shaw. Pembury Woods, 1944. East Wood, Lamberhurst, JRW.

14) 50 acre Wood / Cole Wood, Woodchurch ES.

16) Postling Wents, 1945.

Festuca L.

F. pratensis Huds. 15, 16 31/51 [Meadow Fescue]

Native. Pastures and meadows, nearly always on base-rich riverine alluvial or peaty soils; common in suitable habitats; absent from the chalk country, and from the alluvial flats including Romney Marsh; and very rare in the High Weald. Its absence from alluvial coastal flats is probably due to the lack of suitable habitats with periodic flushing or flooding with base-rich non-saline water.

1) Shooters Hill, GMB. North Cray Meadows 1955 **MNE**. Ruxley pits, S&S. 51/46 Orp[ington]; 51/47 Bexley

2) 51/66 Meopham; 51/76 Medway; 61/06 Fav[ersham] 58.

4) L[i]t[tle] Britton Fen N. of Wingham 1946: ½ m N of Wingham 1956 **MNE**. Hacklinge Fen-Meadows 1946 **MNE**. E of Sandwich. Fen meadow, Westbere Marshes, 1956.

61/25 Wingham; 61/35 S[and]wich; 61/16 Sturry 55; 61/26 Chislet 55; 61/36 Thanet 56.

5) Path in wood on c[lay] w[ith] f[lints], Chevening Park, 1961 **MNE**.

6) 51/77 Cliffe

8) Valley on Wye Downs on loam, F.H.P., 1954. Denton, meadow, DACL. 61/24 1956 T[emple] Ewell.

10) Darenth Meadows 1944-54 **MNE**. Meadows ¼ m N. of Bat & Ball 1951 **MNE**. Meadow N. of Shoreham '54 **MNE**. S. of Lullingstone '56 **MNE**. Bradbourne Meads FSEF. 51/55 S[evenoaks]; 51/56 Farn[borough]; 51/57 Dartf[or]d.

11) Meadows SW of Snodland 1945 **MNE**. E. of Polhill Harrietsham 1958 **MNE**. Meadows W of Tonbridge. Kelsham, Headcorn, 1956 **MNE**. Meadows W of Penshurst. Meadows by R. Eden, Chiddingstone, 1944.

¹³⁶ GRAMINEAE in the manuscript.

¹³⁷ Follows *Parapholis* in the manuscript.

¹³⁸ Placed after *Alopecurus* in the manuscript.

(not 51/75 M[aid]stone);
51/65 W[est] M[alling]; 51/44 Edenbr[idge]; 51/54 Tonbr[idge] '55; 51/54 Headcorn '56; 51/85 '58 Hollingbourne
12) Meadow ESE of Lenham Ch[urch] 1958 **MNE**. Fen meadow, Cuckoldscoombe, Brook 1945-54 **MNE**.
Stowting Fen Meadows 1946.

51/95 Lenham '58; 51/45 West[erha]m¹³⁹; 51/94, 58; 61/04; 61/14 Stowting; 61/05 Chilham; 61/15 C[anter]bury '55.
13) E of Beachborough HNC. 51/53 T[unbridge] W[ells] '54.

14) 51/82 W. Oxney 1956.

16) 61/13 Hythe '56; 61/23 Folkestone 58.

F. arundinacea Schreb. 15, 16 35/51 {Tall Fescue}

Native. Banks and rough grassland, nearly always on heavy soils inland, but on sand and chalk as well on the coastline, where it is more abundant than inland; locally common.

1) Kent Gate, W. Wickham AE Davis **MNE** 1915. Ruxley pits, S&S. 51/46 Orp[ington]; 51/47 Bexley '55.

2) S. of Cooling. Northfleet. Snodland. 66 Seasalter HMW. Meadow S. of Oare Creek 1959 **MNE**. Ham Hill Birling PCH. Luddenham Marshes HMW. 51/66 Meopham '56; 51/76 Medway; 51/67 G[raves]end; 51/86 Halstow 58; 51/96 Teynham 58; 61/06 Fav[ersham] '55; 51/87 Grain 58; 51/97 Sheerness '55; 61/07 Warden.

3) 16 Behind shore, 102660, W of Whitstable, HMW, 1957. 05 Pasture on L[ondon] C[lay], N of Dunkirk 1955 **MNE**. 06 top of Beach, Medina Av[enue], Seasalter, HMW. Herne Bay, 1843, R. Warnock (as *F. sylvatica* β *decidua*) but is *F. arundinacea* det. A. Melderis, see Flora K. p.409.

4) Worth Minnis. Ham Fen, 46-54 **MNE**. Slacks, Sandwich Bay. E of Sandwich.

61/25 Wingham; 61/35 S[and]wich; 61/26 Chislet '55; 61/36 Thanet '55.

6E) Swanscombe Wood, cutting of A2 on clay. 51/77 Cliffe; 51/57 Dartford.

8) Newington Downs 1955 **MNE**. Above Folkestone Warren on chalk 1960 **MNE**. 61/24 '55; 61/34 '55.

10) 51/55 S[even]oaks; 51/56 Farn[ingham] '56.

11) Addington, r[oad]side, 1946 **MNE**. Ryarsh, r[oad]side, 1946. Aylesford H.L. **MNE** 1899. SE of Startled Saint, W. Malling, 1960 **MNE**. Goddington, Harrietsham, Mrs B. Dodds. Sandling Wood, R[oad]side on F[olkestone] Sand, EGP. 51/65 W[est] M[alling]; 51/75 M[aid]stone; 51/84 Headcorn '55; 51/85 Holl[ingbourne] 58.

12) E. of Gibbons Brook on clay pasture 1954 **MNE**.

61/04 T[emple] Ewell; 61/14 Dover; 51/95 Lenham '59; 61/05 Chilham.

13) 51/73 Crundale 56. 61/64 Pembury 55.

15) Pastures W. of Hythe 1952 **MNE**. 61/01 Dungeness

16) Gault in Folkestone Warren 1960. Edge of Newington Moor 1954 **MNE**. 61/13 Hythe; 61/23 Folkestone

F. gigantea (L.) Vill. [Giant Fescue]

Native. Woodlands on relatively base-rich soils; common throughout Kent, except in the treeless Marsh districts and on very acid sands and heavy clays. On the Weald Clay it is usually confined (as is *Glechoma*) to alluvial deposits or flushed areas on stream banks.

1) Crofton Heath PCH. High Wood, Crofton PCH. Holwood Park PCH. R. Cray, N Cray, PCH 54. Wood by River, N. Of N Cray, PCH **MNE** '55. Copse by N. Cray Ch[urch] PCH '54. Joydens Wood, 1946 **MNE**. Beckenham Place, PCH. W. Wickham Common, 397653 PCH. Shooters Hill Woods, G.M.B.

2) 06 S. of Oare Pond '59 **MNE**. 87 Copse, St Mary Hoo, PCH. 97 Rare in Brambledown Oakwood, 1955. ...By Oare Meadow, 1962, HMW.

3) Shelving Wood, Hoath, 1962. S. of Stodmarsh Court Fm REW.

5) Darwin's Bank Wood, Downe, JEL. Chevening Park PCH.

6) R[oad]bank N. of Harvel, '62.

7) Bridge Woods, (East) 1997.

8) Bridge JG. Copse on chalk in valley ..., N. of Bavinge Fm 62. Minnis La[ne], River, KDR. Reinden Wood, BN. Womenswold RGW. 25 Wood, Fredville, 1955, BN. 34 Oxney Court Wood, B.N., 1956. Eastling Wood, BN. Wolverton Wood, 1962.

10) Knole Park entrance drive, 1950. R[iver] path below Shoreham PCH. Lullingstone, by Darent in copse, 1956 **MNE**. St Johns Jerusalem PCH. Wood, Bayleys Hill, S[even]oaks, 50 **MNE**. Westerham Wood, 82.

11) Leybourne Wood, 1953 **MNE**. Addington Place DMCC. {F[olkestone] S[and]} Sandling Wood '55; 57 EGP **MNE**. E of Bearsyde. Fairbourne Mill, B. Dodds. Medway, Tonbridge, J. Felton. N of Chiddingstone Causeway 1950. 887411 Riverbank SE of Golden Square, Smarden, '62. 915403 By Beult, Birsch Wood, Bethersden, '62. 918397 By Beult, E of Buckhall, Bethersden, '62. 889418 Beult, N. of Buckmans Green, Smarden, '62.

12) Copse on Gault SE of Lenham '44. Copse (gault) S. of Brook 1952 **MNE**. 1 m NE of Chilham 1950 **MNE**.

¹³⁹ Misplaced.

13) Wood N. of Penshurst 1950 **MNE**. SW of Southborough Common HNC. Hawkenbury, E. Shorrock. SE of Cranbrook. Wood NW of Brenchley, 1952 **MNE**.

16) Aldington Knowle 1950 **MNE**.

[*F. altissima* All.

Probably never found in Kent. Of the localities cited in *Fl. K.*, “Harrison’s Rocks, Tunbridge Wells, Kent” (last report Townsend 1852) was a genuine locality for this species, but it is in Sussex: it is now extinct there. The Herne Bay and Cranbrook localities have never been confirmed. The former is highly unlikely; and intensive search of the Cranbrook area has not revealed the species, though the district has suitable localities for it: it still occurs in two rocky woods in the High Weald of Sussex, but not otherwise nearer than the Wye Valley, N. Warwick and the Derbyshire Pennines.]

F. arenaria Osbeck¹⁴⁰

[Rush-leaved Fescue]

Native. Fixed dunes, and white dunes becoming fixed; rare, but very locally abundant on the Sandwich dunes and at Shellness in Sheppey. Also at Camber, E. Sussex (1961!); Crabknowe spit, Essex (1956!); and on the dunes of Pas de Calais.

2) in Ammophiletum on shell-sand, Shellness, Sheppey, 1962 **MNE**.

4) Sandwich Bay, Dunes N. of Princes Club House, 1952 **MNE**; St Georges Links 1962 **MNE**, 1963, KFC det. A. Melderis.

(not reported yet from New Romney area, but it probably occurs there.)

F. rubra L. **subsp. rubra**

[Red Fescue]

Native. Hedgebanks, pastures on a wide variety of soils, saltmarshes: abundant throughout Kent. On the chalk downs it occurs on deeper soils, more gradual slopes, and damper sites generally than *F. ovina*, and is less abundant on the N. Downs than on the S. Downs. Common in all adjacent counties and in N. France.

1) Chislehurst 1888, E. de C., det WOH, BEC Rep 1926, p.175-6 (var. *vulgaris*). Ruxley pits, S&S.

2) *Festucetum rubrae* sub/emerg ratio 0.004: 3krs/732 p. month. S Minster Marshes '55. Eastchurch cliffs '55. E of Minster, ... of cliffs '54 **MNE**. Beach Seasalter HMW. Var. *arenaria* Shellness: N of Leysdown: Grain S. Beach.

3) Canterbury Golf Course, '55.

4) Var. *arenaria* → Sandwich Bay, 46-61 **MNE**. Fixed dunes E of Downs Fm, Sandwich '62. Salting edge, [locally] d[ominant], 266692, N. of St Nicholas, '62. Wingham, L[it]t[le] Britton, 1949 **MNE**. Ham Fen ...1991. var. *barbata* Hack. Deal, GCD det WOH, BEC Rep. 1926, p.142.

5) Darwin's Bank, Downe. Chevening Park. 396611¹⁴¹ PCH.

6) G[rea]t Chalk pit NW of Horns Cross '62. Mounts Rd, PCH. Down N. of Cuxton 45 **MNE**.

7) Down foot, N. of W[ater] Works, Boxley, '62. R[oa]dside Hartlip Hill '55.

8) Wye Crown Downs. Broad Downs '62. Brook Hillock '62. S of Alkham: Hougham. Coombe Vale Dover. Edge of Wolverton Wood 62. Track ½ m NE of St Margarets at Cliffe '62. Down 1 m NE of St Margarets at Cliffe '62. Free Down '62. Beech plant[at]io[n] E side Goodnestone P[ar]k 62. Abbots cliff top 1946-62 **MNE**.

10) Westerham Wood 82.

11) R[oa]dside E of Forstal '55. Wrotham Heath 1945 **MNE**. East Malling, abund[ant]. Ditton. Laneside N of Hildenborough '55. R[ai]l[wa]y bank, Hildenborough, CAS, '59. Headcorn Ch[urch] y[ar]d '62.

13) Wood on T[unbridge] W[ells] S[and], South Park, Penshurst, '62.

14) Knock Wood Tenterden on Ash S, '62.

15) V. *arenaria* Greatstone; Romney Warren **MNE** 1945; Lydd Common. Shirley Moor.

16) W of Hythe.

subsp. commutata Gaudin

F. ovina L.

[Sheep's Fescue]

Native. Chalk Downs, in short open turf, on shallow, skeletal rendzina soils: characteristic and constant in such habitats, and very nearly faithful to them; occasionally in dry pastures on neutral non-calcareous sands and gravels. If sheep-grazing ceases, *F. ovina* tends to be replaced by *B. erectus* instead, or by *Brachypodium pinnatum*, especially nearer the sea; except on steep, hot slopes where solifluction tends to maintain a skeletal

¹⁴⁰ Given as *F. juncifolia* St.-Amans, placed after *F. rubra*, in manuscript.

¹⁴¹ A location near New Addington, just within the vc16 border.

soil and thus an open sward of short grasses. General on the chalk downs of Surrey and Sussex; naturally very local on the limited chalk areas of Essex; general on the chalk of N. France.

1) Ruxley pits, S&S.

3) Whitstable harbour REW.

4) Dunes, Deal links.

5) Downs W of Shoreham 1945 **MNE**. By Lattice Coppice, Knockholt, 1947 **MNE**. Darwins Bank, Downe. Chevening Park. Down NE of Pilgrim Ho[use], Westerham, 62.

6) Down, E of Molehill Wood, W of Buckland '61. White Hill, Shoreham, PCH; 1962 FR. Down at The Warren Cobham 1944 **MNE**. Down S of Great Wood Cuxton 1945-60. Ryarsh Downs '43 **MNE**. Upper Halling Downs '43 **MNE**.

7) Down E of Whitehorse Stone E of L[owe]r Bell '62. Down above W[ater] Works, Boxley '62. Chancel[?] Spur / Scarborough Spur, Burham Downs. Foxbury Down, Cobham Fm, Lenham 1948 **MNE**. Grass heath on Eocene (Thanet) Sand, Chestnut Street, Newington 1957 **MNE**. Down, Filmer Wood, '62. Down S. of Spuckles Wood, Stalisfield, '62.

8) Wye Crown Downs. Downs N. of Ch[urch], Crundale. Winchcome Down, Crundale '56 **MNE**. Broad Downs, Brook 62. Brook Hillock, 62. Downs N of Podlinge '62. Down NW of Misling Fm Elmsted 62. Down 137503 SE Petham, MEM. SW of Lydden (v. hispida) DPY det CEH, 1955. Chalk bank, Bonnybush Hill, Kingston 62. Coombe Vale Dover, 1959 **MNE**. Down 1m NE of St Margarets at Cliffe, 1962.

13) Timberley Orchard, JRW. By Hawkenbury Bog, CAS, 1958.

15) Romney Warren, 1962.

F. tenuifolia Sibth. (F. filiformis)

{Fine-leaved Sheep's Fescue}

1) Hayes Common 1945 **MNE**, 1948. Keston Common 1944-62. Chislehurst Common 1945 **MNE**. Dartford Heath, 1960 **MNE**. Blackheath GMB. Farningham Wood 1945. Hollows Wood, SE of Chelsfield 1945.

3) Grass heath NW of Dunkirk 1945 **MNE**. Grass heath S. of Dunkirk. Fishponds Cottages. Trenley Park Wood. Canterbury golf course.

6E) Cobham Park. Darenth Wood. Brewers Wood border by A.2 on Eocene Sand. Top of Holly Hill 668628, (Black[heath] Beds) '62.

10) Seal Chart. Knole Park. Rose Wood Ightham. Oldbury Hill. Bitchet Common. Bayleys Hill. Brasted Chart. Crockham Hill Common.

11) Wrotham Heath 1945 **MNE** 1962. Platt Woods. Comp Woods. Oaken Wood, Ditton. On 'head' in Woods S. of Preston Hall '45 **MNE**. W. of Hollingbourne. Warren Wood, Leeds.

12) Hothfield Common. Ashford Warren 1945 **MNE**. Willesborough Lees. Gibbons Brook. Brabourne Lees.

13) Stone Cross Gill, Ashurst, '59 CAS. T[unbridge] Wells Common. Southborough Common. Bedgebury. Hawkenbury Bog, 1958, CAS. Chittenden Wood.

15) Shingle Beach, Dungeness, 1945, **MNE**.

Festuca x Lolium = **Festulolium** Aschers. & Graebn.

Festuca pratensis x L. perenne = **Festulolium loliaceum** (Huds.) P. Fourn.

4) Fen-meadows N. of Wingham, 1946 **MNE**.

10) Darenth Meadows, 1946 **MNE**. N.E. of Riverhead in Meadows, 1954 **MNE**.

13) Field by High Woods, Hawkenbury, 1960, CAS.

Festuca x Vulpia

F. rubra x V. fasciculata¹⁴²

4) Dunes, Sandwich Bay, Miss McCallum Webster, 1954, det. A. Melderis.

Lolium L.

L. perenne L.

[Perennial Rye-grass]

1) Crofton Heath PCH. Dartford Heath PCH. R[oa]dsides Hockenden, W of Swanley PCH. Bexley Mill Pond PCH. N. Cray Wood PCH. Eltham Common / Woolwich, RAG 1934 **MNE**. Shooters Hill GHB. Ruxley pits S&S. Farningham Wood 82.

¹⁴² In the manuscript, given as *V. membranacea*.

- 2) Woolwich Arsenal PCH. River wall Dartford 545777, '62. Dartford Marshes 541761, '62. Pasture, hetney Marshes '62.
- 3) Pasture on gravels S of Highstead Heath '62.
- 4) Sandwich Bay, etc.
- 5) Field W. of Shoreham PCH. Chevening Park PCH. 3964 Well Wood PCH.
- 6) Mounts Rd PCH. Shoreham R[ifle] Range PCH. Preston Hill PCH. Below G[rea]t Wood Cobham, 1944-60 **MNE**. R[oa]dside Wrotham PCH. Kemsing Down PCH.
- 8) Foot of Westwell Hangers '62. d[ominant] Brook Hillock (ley) '62. 137508 Petham MEM.
- 10) Riverhead meadows '54 **MNE**. Otford PCH. Meadow N. of Shoreham 54 **MNE**. Eynsford PCH. W. of S. Darenth PCH. St John Jerusalem PCH.
- 11) Wrotham Heath '44 **MNE**. E. Farleigh, LRAg, 1958 **MNE**.
- 12) Hothfield Common 1943 **MNE**.
- 13) Southborough HNC.
- 15) Lydd Airport DMCC.
- var. sphaerostachyum** Mast. Wye, Mrs M. Cobbe, BEC Rep. 1925, p224.

L. multiflorum Lam.

[Italian Rye-grass]

- 1) Crofton Heath PCH. R. Cray, N. Cray PCH. 37 Beckenham Place, 1954, PCH. W. Wickham AE Davis 1916 **MNE**. Woolwich Common 1934 LRAg **MNE**. Ruxley pits S&S.
- 3) Sharmal St[reet] Sta[tion] PCH. Blue Anchor, Seasalter, REW. Grain, 885765, AGS.
- 4) Plucks Gutter 1953 **MNE**.
- 5) Stubble, nr Well Wood, 396642, PCH.
- 6) Kemsing Downs, PCH. Pilgrims Way, Wrotham, PCH. Buckland R[oa]d, Luddesdown PCH. Maplescombe HMP. Cabbage f[ield]d 619723 N of Southfleet PCH.
- 7) [E of Bluebell Hill H.L. 1899 **MNE**]. Orchard E of Long Beech Wood ES.
- 8) Ringwould, B.N. Kale SE of Eastling Wood B.N.
- 10) Otford: Eynsford PCH. S. Darenth PCH. St Johns Jerusalem PCH. Bradbourne pits FSEF. 7oaks tip DMCC. [Boxley H. Lamb, 1898 **MNE**].
- 11) W Field, 917397, SE of Baskhall, Bethersden. Eenbridge tip DPY.
- 13) Cranbrook DS.
- 16) nr. Kiln Wood, Sandling, LJM.

L. rigidum Gaud.¹⁴³

- 4) Sandwich, 1960, DMCC.
- 9) Birchington, 1960, DMCC, **MNE**.

† **L. temulentum** L.

Darnel

- 6) Longfield tip, DMCC 1956 **MNE**, 1965, JR Palmer.
- 10) 7oaks Dump, DMCC.

Vulpia C.C. Gmel.

V. fasciculata (Forssk.) Fritsch¹⁴⁴

15

[Dune Fescue]

Native. On fixed dunes, especially in rather open turf or disturbed areas: confined to the Sandwich dunes, where it is however very abundant. Surprisingly it appears to be absent at Romney. Absent at Camber, E. Sussex, but plentiful at Littlehampton. Unrecorded in Pas de Calais.

- 4) Fixed dunes, St. Georges Links, Sandwich Bay, 1945-62 **MNE** Fixed dunes about Guilford Hotel, Sandwich Bay.

V. bromoides (L.) Gray

15, 16

[Squirrel-tail Fescue]

- 1) Eltham Common LRAg 1934 **MNE**. Ruxley pits, S&S. Hayes Common 1945 **MNE**. Keston Common. SE of Chelsfield 1945. Farningham Wood. Joydens Wood, PCH.
- 2) gsl. On Bagshot Sand, Cliffs E of Minster, 1954 **MNE**.

¹⁴³ Placed after *L. temulentum* in the manuscript.

¹⁴⁴ In the manuscript, given as *V. membranacea* (L.) Dumort..

- 3) Bysing Wood. Rough Common RGW. Grass heath NW of Dunkirk 1945 **MNE**. Swanton Fm pit, 1955 **MNE**. 06 topof Beach nr Medina av[enue], Seasalter, **MNE**, 1945-60.
- 4) about Guilford Hotel, Sandwich Bay **MNE** 1945-60. Deal Links. Richborough.
- 6E) Green St[reet] Green, 1945 **MNE**. Common by Shorne Windmill. Randall Wood. Cookham Wood, Upnor 1960 **MNE**.
- 7) Newnham gravel pit. Stockbury, Three Squirrels Down, 1944 **MNE**.
- 8) Chilham Hill ES.
- 10) Sevenoaks 1903 H.L. **MNE**.
- 11) Wrotham Heath 1942-60 **MNE**. Ryarsh Sandpits. Leybourne Wood 1955 **MNE**. A20 W. of Hollingbourne. A20 E. of Hollingbourne 1955 **MNE**. Sandpit 1m. SE of Harrietsham 1958 EGP, **MNE**. By Pond E of Hale St[reet] CAS. Platt. Holt Wood. Lark field Heath. Warren Wood, Leeds. Ditton S quarry 715566 CAS. E. Malling 1944 **MNE**. Aylesford Gravel pits EGP.
- 12) 915405, path, Birch Wood Bethersden (sandy) 1962. Hothfield Common 1945 **MNE**. Ashford Warren. Willesborough Lees. Brabourne Lees 1945 **MNE**.
- 13) Stone Cross, Ashurst, 1959 CAS. By Brighton Lake, T[unbridge] Wells, 1960 CAS. Penshurst Park 1944 **MNE**. High Rocks Lane, on rubbish heap, '51. KEB.
- 14) 50 Acre Wood, Woodchurch ES.
- 15) Romney Warren. Lydd Common. Dungeness. Ancient dunes S. of W. Hythe, '62. Hythe W. Beach BW.

V. myuros (L.) C.C. Gmel.

[Rat's-tail Fescue]

- 1) Farningham Wood, 1946.
- 2) R[ai]l[wa]y bank, Cuxton, 1945 **MNE**. Grain, PCH. River Wall, Stone Marshes, 1945 **MNE**. River Wall, Swanscombe, 1946. Tonge Marshes 1958, DMCC **MNE**. Waste g[roun]d, Faversham Creek 1960 **MNE**.
- 3) Hernhill village, 1955 **MNE**.
- 4) Richborough waste g[roun]d. Kingsdown Beach, 1946 **MNE**. Plucks Gutter, 1955 **MNE**. Old r[ai]l[wa]y and Wall of Churchyard, Wingham BN.
- 6E) Cliffe Sta[tion] PCH. Sharnal St[reet] Sta[tion] PCH. Swanscombe Wood, 1946. Dry ground, Green Street Green 1945 **MNE**.
- 8) Bridge, JG.
- 11) Birling Marshes, 1945, **MNE**. W. Malling Station Road, 1960 **MNE**. Cinder Path by Medway, near Gasworks, Tonbridge, CAS, 1960 **MNE**. Kemsing Sta[tion]. Boro[ugh] G[ree]n, DMCC. Wrotham Heath 1945 **MNE**. Aylesford sandpits, 1957, EGP, **MNE**. A20, Warren Road, Broomfield, 1945 **MNE**.
- 12) Headcorn Sta[tion], '62. [Wye, Lady D., 1902] Brabourne Lees, 1945 **MNE**. Canterbury W. sta[tion] sidings MEM.
- 13) near Brighton Lake, Tunbridge Wells, CAS.
- 15) Dungeness, Shingle beach near Long ballast pit, 1946 **MNE**. Beach W. of Hythe, 1955, **MNE**.

† **V. myuros f. megalura** (Nutt.) Stace & R. Cotton¹⁴⁵

- 11) Harrietsham Station, Mrs. B. Dodds, E.G.P., D.McC& JEL, 1961; 1965, BD, **MNE** det. C.E. Hubbard.
- 12) Sellindge, 1951, D.H.K.

V. ciliata Dumort.¹⁴⁶

[Bearded Fescue]

- 1) Sandy grass heath, W side of Farningham Wood, 1946 **MNE**.
- 4) Deal Links, 1954-'61 **MNE**. Sandwich Bay, 1946-62 **MNE**. St Georges Links, 1950 **MNE**. Princes Links. Sandwich Town, 1946. Upper Deal, 1946. Walmer Beach, 1946, **MNE**. Kingsdown Beach, 1946 **MNE**, 1958 KDR.
- 5) near Biggin Hill, 1903, W.H. Griffin, *Wool[wich] Surveys*.
- 6E) Chalk gravel pit 1946 **MNE**.
- 11) Wrotham Heath, 1944-62 **MNE**. Ryarsh Sandpits, 1945. Near Hythe Sandpits, 1946. Sandy Bank of A.20, Warren Road, Leeds, 1945-62 **MNE**.
- 12) R[oa]dside A.20, W. of Woolpack, Hothfield, 1946. R[oa]dside A.20, Warren Woods, Ashford, 1945.. Sandpit, 005451, Sandyhurst L[a]n[e], ES. Brabourne Lees, in sandpit, 1945.
- 15) Romney Warren, 1945-'62 **MNE**. Ancient dunes S. of W. Hythe '62. Lydd Common 1946. Dungeness, 1946.

¹⁴⁵ In the manuscript given as *V. megalura* (Nutt.) Rydb.

¹⁴⁶ In the manuscript given as *V. ambigua* ssp *ciliata* (Le Gall) More; but this would better have been called ssp. *ambigua*..

V. ciliata subsp. ciliata Dumort.¹⁴⁷

2) Brickworks S. of Hoo, 1951, DMcC; 1951! **MNE** det. C.E.. Hubbard at Kew.

V. unilateralis (L.) Stace¹⁴⁸

[Mat-grass Fescue]

6) Broken chalky bank, between arable and downland, 628605, above Wrotham Water, PCH., 1959. 1959! Rough open chalky field, Halling Warren, PCH., 698656, 1959. White Pit, Upper Halling + *T. botrys*, PCH.

7) Chalk pit, Hollingbourne Hill, 848558, 1959 PCH.: 1959! det. A. Melderis.

8) Wye.

15) Littlestone, Lady Davy, 1909.

Cynosurus L.¹⁴⁹**C. cristatus** L.

[Crested Dog's-tail]

1) Blackheath GMB. Shooters Hill. Ruxley pits. Woolwich Common 1934 Lrag **MNE**. 36 W. Wickham Common PCH.

4) Minster Marshes, 1963.

5) Field W. of Shoreham PCH. Darwins Bank Downe. Pilgrims Way Pohill PCH. Chevening Park PCH.

6) Swanscombe Wood PCH. Kemsing Downs PCH.

8) 137508 Petham SE Down MEM.

10) Knole Park PCH. Otford PCH. Darenth water meadows PCH.

11) Leybourne Marshes 1943 **MNE**. Sandling Wood Edge EGP 1957 **MNE**. Fields SE of Buckhall, Bethersden 62.

13) Stone Cross, Ashurst, 523388, CAS, 1959. Southborough Common. South Park, Penshurst '62. Bayham Abbey CAS.

15) Lydd Airport DMcC. Denge Beach, J. Hubbard. Shirley Moor '65.

C. echinatus L.

[Rough Dog's-tail]

Vc16: X BEC, '35, p.47.

1) [1 plant, Bexley, 1946. Hayes, casual, D.McC.] [Beckenham, 1934, A.G. Davis **MNE**.]

4) Gravel pit, Lit[tile] Stonar, Richborough, C.C.T., 1948. Beach by Guilford Hotel, Sandwich Bay, abundant 1946-1961, D. McC & FR **MNE**. Loc[ally] abundant, Walmer Beach, 1946 **MNE**.

6) Temple Farm Estate, Stroud, G.O.P. Roadside, Cliffe, 1951, D. Hambler.

8) Dover E. Cliff, KDR. Bridge J.G.

9) Birchington, 1960 in shoddy, DMcC **MNE**.

11) [Maidstone, N.C. Cook. 1924 **MNE**.]

15) Old shingle workings N. of Lighthouse, Dungeness 1948, B.W; 1953-54 **MNE**. Shingle workings SE of Halfway Bush, Denge Beach 1946 **MNE**. Greatstone, 1946, rare **MNE**.

Puccinellia Parl.**P. maritima** (Huds.) Parl.

15, 16

[Common Saltmarsh-grass]

2) Erith Marshes, Dartford saltmarshes by R. Thames, 545777 & 541799. Stone saltmarshes. Swanscombe saltmarshes. Northfleet saltmarshes. Gravesend Canal Dock **MNE** 145. Chalk. Shorne. Higham Marshes. Cliffe Creek. Egypt Bay. St Marys Bay. All Hallows **MNE** 1945. Grain. L[owe]r Stoke. Hoo. W. of Upnor. Cuxton **MNE**, 1945, 1951. Halling. Borstal. Wouldham. Motley Hill / Horrid Hill, Rainham 1951 **MNE**. L[owe]r Halstow. L[ocally] d[ominant], Funton Creek 62. Tonge. Conyer Creek. Oare Creek **MNE** 1959. Faversham Creek 1960 **MNE**. Elmley. Fowley Island 1960 **MNE**. Harty. Kingsferry. Shellness. N. of Leysdown. W. of Seasalter! HMW 1958 **MNE**.

4) E. of Reculver 1946. Stour estuary Salt Marshes, Sandwich to Shellness.

8) Shakespeare Beach, Dover, KDR.

15) Salting behind Dymchurch Wall. Midrips, J. Hubbard.

¹⁴⁷ In the manuscript given as *V. ciliata* Link. which is the casual subspecies, better treated as ssp. *ciliata*, instead of this being attributed to the previous taxon.

¹⁴⁸ In the manuscript given as *Nardurus maritimus* (L.) Murb. and placed after *Catapodium*.

¹⁴⁹ In the manuscript, *Cynosurus* follows *Dactylis*.

P. distans (Jacq.) Parl.¹⁵⁰

15, 16

[Reflexed Saltmarsh-grass]

2) Saltings, Stone Marshes, 564762, HMP. Swanscombe Marshes. Gravesend Canal Dock **MNE** 1945. Denton. Shorne. Borstal, by Medway. Cuxton Saltings, 1945→. N of New Hythe. Rainham. Lower Halstow 1957 **MNE**. Cliffe 1950 **MNE**. W of Upnor. Shellness. Harty. Elmley. N. of Leysdown 1956 **MNE**. Oare Creek 1959 **MNE**. Faversham Creek. W. of Seasalter 1958, HMW **MNE**, 1960! Seasalter Beach 1958 HMW **MNE**. N of Stoke Junction Halt 1945-1959 **MNE**. Grain. 87 Greenborough Marsh. 86 W. of Milford Hope.

3) Swalecliffe sea wall, 1959, HMW.

4) Sandwich Quay, 1946. Brackish dikes, Sandwich Flats, E. of Stour, 1957 **MNE**. E of Reculver. V[ery] a[bundant], Dikes behind Princes Links, 1962, to Shellness. Pegwell (St. Augustines G[olf] C[lub] dikes! 1963. W. of Minnis Bay, Mrs B. Dodds.

15) N. of Dymchurch. S. of Dymchurch. St Mary's Bay. SE of New Romney.

P. distans x rupestris = **P. x pannonica** (Hack.) Holmberg

2) Gravesend Canal Dock, 1945, det. P. Jansen **MNE**; conf. C.E. Hubbard.

P. pseudodistans (Crép.) Jansen & Wachter¹⁵¹

2) Stone Marshes, J.E.L., 1847. Northfleet Marshes, 1945. Stoke Junction Halt, 1958 **MNE**. Marsh N. of Leysdown, Sheppey 1956, **MNE**. S. of Harty Ferry 1957 **MNE**. E. of White Sluice near Sportsman, Seasalter, 1960, **MNE**.

4) Brackish Marsh dikes, N of Ebbsfleet, 1963.

P. fasciculata (Torr.) Bicknell

[Borrer's Saltmarsh-grass]

2) Stone Marshes, 1945-. Swanscombe Marshes, 1945-. Gravesend, C.P. Hurst, 1900 **MNE**. Frindsbury marshes, W. of Upnor, 1945-60 **MNE**. NE of Cuxton, 1945- **MNE**. S. of Harty Ferry 1957 **MNE**. W of Seasalter near Sportsman, 1957-60 **MNE**. Seasalter, 1958, HMW, **MNE**. Scrapsgate, 1965, JE Nichols. Lower Halstow 1957 **MNE**. Brackish fleets. Chetney Marshes 62. Elmley, 1950 **MNE**. Capel Fleet, Harty 1959 **MNE**. N. of Leysdown, 1956 **MNE**. Shellness, 1956-60 **MNE**. N of Stoke Junction Halt 1945-61 **MNE**. N coast, Ip[sle] of Grain, 1945-48 **MNE**. NE of Blacketts, Tonge, 1958 **MNE**. W. of Conyer Creek, 1958 **MNE**. 101661, West Beach boating lake, Whitstable, HMW.

3) Swalecliffe, HMW 1959 **MNE**.

4) Stour estuary, NE of Sandwich, 1957. Behind Princes Links, 1962. Dikes N of Ebbsfleet 1963. Brackish Dike N. of Shuart, 270686, '62. Salting N. of Shuart 266692, '62. W. of Minnis Bay, 1960, EGP, **MNE**.

15) 982264 Fairfield, 152: 1962, Mrs. K.D.R. NE of Littlestone 1947, 1950 **MNE**. St Mary's Bay 1947, **MNE**. By Canal, W. of Hythe, 1956, LJM.

P. rupestris (With.) Fernald & Weatherby

[Stiff Saltmarsh-grass]

2) Plumstead, G.E. Dennis, 1845, **MNE**. Erith Marshes, PCH. Crossness PCH. Dartford Marshes, at edge of ditch, 1962 **MNE** and behind seawall, 546776 and 541769.. Swanscombe Marshes 1945-46 **MNE**. Northfleet. Stoke Junction 1945-61 **MNE**. Gravesend Canal 1945 **MNE**. Denton, GMB. Shornmead. Strood, 1850 **MNE**. SW of Upnor 1945→ **MNE**, **BM**. Creek, Cliffe, 1950. Grain 1946 **MNE**. N of Cuxton, 1945 **MNE**. New Hythe 1945. E. of White Sluice, Seasalter, HMW. Castle Coot, near sea wall, KDR, 1960. N. of Leysdown 1956 **MNE**. Shellness, Lady D, BEC Excur[sion] 1938; 1954! 1963! Harty, 1946. Elmley 1950 **MNE**. Ground behind sea wall, Castle Coot, Graveney, 1960. Oare Creek 1959 **MNE**.

3) Swalecliffe, 1959, HMW **MNE**.

16) Folkestone Harbour, Miss M. Cobbe, BEC Rep. 1923, p.223.

Briza L.¹⁵²**B. media** L.

[Common Quaking-grass]

1) Keston Common AGD 1916 **MNE**. Holwood Park near Lakes, 1954 **MNE**.

2) Meadow $\frac{3}{4}$ m S. of Cliffe, 1944.

3) Grassland on clay, S. of Dunkirk, 1946. Duncan Down, Whitstable, v[ery] a[bundant] in grassland on clay, 110650, 1961, H.M. Wilks.

4) Hackling Meadows. Sandwich Bay.

¹⁵⁰ In the manuscript, cited as *P. distans* (L.) Parl.

¹⁵¹ This taxon has since been treated as subsumed in *P. fasciculata*.

¹⁵² In the manuscript, *Briza* follows *Cynosurus*.

- 5) Down W. of Shoreham PCH. Pilots Wood, PCH. Pilgrims Way, Polhill PCH. Darwins Bank Downe 1961. Down NE of Pilgrims Ho[use], Westerham '62.
- 6) Down E. of Molehill Wood, Buckland '61. White Hill, Downs E. of Shoreham, PCH; FR. Preston Hill Down PCH; FR. Kemsing Downs PCH. Downs above Trottscliffe PCH.
- 7) Church spur, Scarborough spur, Burham Downs. Pilgrims View L[owe]r Bell '62. Down E of Whitehorse Stone '62. Boxley Down N. of W[ater] Works 62. Queen Down Warren. Downs at Foxbury Lenham 1946. Downs ½ m. E. of Lenham, 1956. Filmer Down, '62.
- 8) Wye Crown Downs. A[bundant], Broad Downs '62. Brook Hillock 62. A[bundant] – cod[ominant] Down NE of Giddy Horn 62. A[bundant] Down N of Podlinge 62. Ch[al]k bank, Bonny Bush Hill, Kingston 62. Winchcomb Farm Down Crundale 1956 **MNE**. Down NW of Misling Fm, Elmsted 62. 137508 SE of Petham MEM. Down N. of Pean BW. A[bundant] – l[ocally] d[ominant] Woodville Downs, T[emple] Ewell. A[bundant] Free Down '62. Down 1m NE St Marg[are]ts at Cliffe 62.
- 10) N. of Bat & Ball Sevenoaks 1950 **MNE**. Darenth Water Meadows, PCH.
- 11) Wrotham Heath 1944, on r[oa]dside **MNE**. Clare Park, E. Malling. Meadows ½ m W. of Penshurst 1944 **MNE**.
- 12) Cuckolds Coomb fen, Brook, 1945-54 **MNE**. Stowting fen 1954 **MNE**.
- 13) Near Stone Cross gill, Ashurst, in meadow, CAS, 1959. Marsh by Ellis Wood, Lamberhurst 1946 **MNE**. Pentecost's Field Southborough HNC. Dunorlan, T[unbridge] Wells, CAS.
- 14) 926347 ...by r[oa]d E of Robhurst ES.

B. minor L.¹⁵³

B. maxima L.

[Great Quaking-grass]

- 11) Casual, R[oa]dside N of Watlington, 1947.
- 13) Claremont R[oa]d, T[unbridge] Wells, v[ery] a[bundant], 1957, 1962, K.E.B. Hook Green, 1960, FRB.

Poa L.¹⁵⁴

P. annua L.

[Annual Meadow-grass]

- 1) Blackheath GMB. Bostall Heath PCH. Ruxley Pits. Shooters Hill. GMB. Bexley Mill Pond PCH. N. Cray Wood, PCH. Joydens Wood PCH.
- 2) Woolwich Arsenal, PCH. Sewer Bank, Plumstead, PCH. River Wall by Longreach Tavern 545777, '62. Shellness Sheppey 1950-1955 **MNE**.
- 3) Swalecliffe Sea Wall, '59, HMW. Church Wood: Blean Wood. RGW.
- 5) Cornfield S of Morants C[our]t Hill '62. N of Chevening Park '62. 396611 PCH. Wood W. of Shoreham PCH. Pilots Wood PCH.
- 6) Darenth Wood PCH. Mounts Rd PCH. . Preston Hill PCH. Pilgrims Way E of Wrotham PCH. Cornfield NE of St Clere '62. ½ m NE of Kemsing Ch[urch] '62.
- 8) Down, NE of Elham Park Wood 1958 **MNE**.
- 10) Bat & Ball tip CAS. Otford PCH. River Path N of Shoreham PCH. Eynsford PCH. Shoreham Ch[urch] Y[ar]d PCH. W. of S Darenth PCH. St Johns Jerusalem PCH.
- 11) E Malling abund[ant] '62. W. Malling abund[ant] '62. Ancient wall, The Friars, Aylesford 62. Maidstone, 1926, H. Elgar **MNE**. Sandling Wood edge 1957, EGP, **MNE**. Headcorn Ch[urch] y[ar]d 62.
- 13) Stone Cross, Ashurst 1959 CAS. S. Park Penshurst, by track 62. Southborough HNC. Bayham Abbey CAS.
- 15) Lydd Airport DMCC.

P. trivialis L.

15, 16

[Rough Meadow-grass]

Native. Meadows, dry to damp woodland and carrs, roadsides, hedges, waste ground; abundant everywhere, except open grasslands on chalk and sands.

- 1) Blackheath GMB. Ruxley pits, S&S. Abbey Wood, RAB. Farningham Wood, PCH; 82!
- 2) Stone Marshes, St J.M. (var. glabra Doell.) BEC Rep 1921 p403. Oare mill pond meadow, 1959, **MNE**. Marsh E. of Oare Creek 1959 **MNE**.
- 4) Sandwich Bay.
- 5) Darwins Bank, Downe, JEL.

¹⁵³ Listed, but no records given.

¹⁵⁴ In the manuscript, species are given in sequence; annua, bulbosa, nemoralis, compressa, pratensis, angustifolia, humilis, trivialis, palustris, chaixii.

- 6) Great Wood Cuxton 1944 **MNE**. Preston Hill on c[lay] w[ith] f[lints] PCH.
- 7) Warren Lane L[owe]r Bell '62. Highsted Pits HMW. Filmer Wood (Valley Bott[om] on sandy loam) 62. Tassels Wood Norton '62. Park Bottom Wood Newnham '62. 975505 on Pliocene? Longbeach Wood Chaxring, '62.
- 8) Bridge JG.JG. Copse N. of Bavinge (basic loam) '62. Beech Plant[atio]n (ch[al]k) E side Goodnestone P[ar]k '62. Coombe Vale Woods, '55. Sutton Downs '55.
- 10) Meadow N. of Bat & Ball, Sevenoaks, 1950 **MNE**. Westerham Wood 82! By R[iver] above S. Darenth, PCH.
- 11) Alnetum, Leeds Bridge; Chegworth; Polhill. Maidstone, Path s[i]d[e] Hedges, 1957 EGP **MNE**. W. Malling 1955 **MNE**. E. Malling. E, Farleigh. Kiln Wood Lenham, Alnetum '62. Beult S. of Headcorn Ch[urch] 831440, '62. Leighbridge Pond, 813454, 62. Beult N of Buckmans Green 889419, '62
- 13) Southborough HNC.
- 14) Rd, Knock Wood Tenterden '62. V[ery] l[ocally] f[requent], Great Heron Wood, Kenardington 62.
- 15) Lydd Airport DMCC. Shirley Moor '65.

P. humilis Erh. ex Hoff.¹⁵⁵

15, 16

[Spreading Meadow-grass]

Native. In dry habitats in Kent (walks, sandy ground, dunes, etc.) and probably not uncommon. In other counties it is reported in wetter places.

- 4) Sandwich Bay dunes 1949 **MNE**; 1963, KFC, det. A. Melderis.
- 11) Mote Park Wall, 1944 **MNE**. Wrotham Heath, by A.20 verge, 1944-1946 **MNE**. Verge of A.20, near Addington, 1945 **MNE**.
- 12) Hothfield Common, 1945 **MNE**: 1962, E.G.P. + KFC.
- 15) Dungeness Beach, 1951 **MNE**.
- 16) Folkestone Leas, 1946 **MNE**. Ragstone scars W. of Hythr, 1955, **MNE**.

P. pratensis L.

[Smooth Meadow-grass]

- 1) Blackheath GMB. Abbey Wood, GAM. Shooters Hill, GMB. Ruxley pits, S&S.
- 2) Grain N. Beach 1955 **MNE**. Meadow SW of Upnor 1960 **MNE**.
- 4) Sandwich Bay 1946 **MNE**.
- 5) Cudham Ch[urch]y[ar]d (s.s.) D.P.Y. Morants Court Hill 1951 **MNE**. 3964, Well Wood, PCH.
- 6) The Warren, Down S. of G[rea]t Wood Cobham '44 **MNE**.
- 6E) Gravel pits, Chalk 1946 **MNE**.
- 7) Pilgrims View Wood, L[owe]r Bell '62. Down above Water Works, Boxley, '62. Church and Scarboro Spurs Burham Down. Walderslade Down 1955 **MNE**. Foxbury Downs E of Lenham 1946 **MNE**.
- 8) Brook Hillock, '62. Alkham Downs S., DPY, det. CEH. Lydden Spout Cliffs, 1953 **MNE**. Sutton Downs '55. N. of St Margarets '55.
- 10) St Johns Jerusalem PCH. R[ai]l[wa]y, 1 m W. of Kemsing Sta[tion], 1946 **MNE**.
- 11) Ragstone Walls, E. Malling **MNE**, Heath Rd; New Rd; Well St[reet]; Well St[reet] Rocks. W. Malling. Aylesford Friary Wall 1952 **MNE**. R[ai]l[wa]y bank, Hildenborough 563482 CAS.
- 12) Hothfield Common 1946 **MNE**. Stubbs Cross, Kingsnorth 1952 **MNE**.
- 13) Stone Cross, Ashurst, 518381, 1959, CAS. Southborough HNC. Hawkenbury Bog, CAS. Bayham Abbey CAS.
- 14) R[oa]dsides Knock Wood Tenterden '62.
- 15) Ancient dunes S of W Hythe '62.
- 16) Folkestone Leas 1946 **MNE**.

P. angustifolia L.

15, 16

[Narrow-leaved Meadow-grass]

Native. Dry grasslands, on chalk or sand; probably common, but under-recorded, as I did not attempt to separate it from *P. pratensis* in earlier survey work.

- 4) Deal Links, 1951 **MNE**. 36 Minster, Ch[urch]y[ar]d wall, 1963.
- 6) Horns Cross Great pit, '62 **MNE**. Stanstead / Farningham, 1934, A Hb Alston. Chalk bank, Frindsbury, 1945 **MNE**. Greenhithe Chalk pits! 1945 **MNE**. Downs N of Crookhorn Wood, Snodland, 1960 **MNE**.
- 7) Boxley Warren, RD English. Sandy bank of A2, E of Newington, 1946 **MNE**. Open wood on chalk, N. of Milsted, 1963, **MNE** det. ECW.
- 8) Downs NE of St Margarets, 1955, DPY, det. CEH.
- 9) Walls, Minster Thanet 63.
- 11) Sandy verge of A.20, 1m W. of Hollingbourne, 1944 **MNE**.

¹⁵⁵ In the manuscript given as *P. subcaerulea* Sm., with *humilis* added in later hand.

13) Bank near Lit[tle] Scotney, Lamberhurst, 1906, JS, **TLS**. Cabbage Stalk Lane, T[unbridge] Wells, 1962 CAS. Wall, T[unbridge] W[ells] Common, 62 CAS.

P. chaixii Vill.¹⁵⁶

P. compressa L. l

[Flattened Meadow-grass]

Native. On old walls, widespread but uncommon: also in old shingle workings on Denge Beach. Most frequent on the Kentish ragstone belt. Rare in Surrey, Sussex and Essex and Pas de Calais.

1) Ruxley pits.

2) 06 Bank S. of Oare Creek HMW.

3) 15 Wall, St. Augustines Abbey, Canterbury.

4) 35 Old walls, Sandwich. Wingham Ch[urch] y[ar]d Wall, '59, BN.

5) 46 Old wall, Downe, F.H.B., 1962.

6) 56 Fawkham Ch[urch] DVS Woods. 67 Shorne Ch[urch] y[ar]d Wall, 1946, DMCC. 57.

7) 86, Wall, Kemsley Street Farm, Bredhurst, 1960 **MNE**.

8) Elham Ch[urch]y[ar]d Wall '59 BN. North Elham, Hedgebank, 1959, BN. 34 Oldstairs Bay, Kingsdown, on flint-faced bank 1956-58 **MNE**. 24 Temple Hill, KDR. Walls near Barracks and Station, Walmer, 1959, BN. R[oa]dsides beechwood, Lynsore Bottom, 1959, BN. Elmstead, R[oa]dsides E of Hastings, '59, BN. Barfreton, in open beechwoods, Wollage Mill and Barham, 1959 BN.

10) 56 Lullingstone Castle 1956 **MNE**. 56 Farningham Village on wall 1958 **MNE**. 56 Farmhouse wall S. of Shoreham GMB & PCH.

11) (E). 75 E. Malling, 1956-60, frequent in several places, **MNE**. 65 Abbey, West Malling, 1955 **MNE**. Wall, Offham. 85 Leeds village, 1959 **MNE**. 85 Hollingbourne (Eythorne St[reet]) 1962 **MNE**. 75 Old ragstone wall, The Friars, Aylesford, '62. 75 Aylesford Sand pit, 1957 EGP **MNE**. 75 Maidstone, H.L. 1894 **MNE**; 1957 **MNE**. 84 Wall, Sutton Valence Ch[urch]y[ar]d. 1954. Rooks Hill!; All Saints Churchyard!; Knole Park!; Sandling Road! (W) 44 Edenbridge, wall in town, 1955 **MNE**.

12) 04 Ashford town on wall, CNP. Cobbles by Sussex Tavern, Tun[bridge] Wells, Kt. (V.C.14), CAS, 1960. 53 1 pl[ant] by Brighton Lake, T[unbridge] Wells, CAS, 1960.

15) 01 Old shingle workings, N.E. of Bird Observatory, Dungeness, 1953-1962.

P. palustris L.¹⁵⁷

P. nemoralis L.

15, 16

[Wood Meadow-grass]

1) R[oyal] M[ilitary] A[cademy] Enclosure, Woolwich, LRA 1934 **MNE**. Wood E. of Bexley Ch[urch] '55 **MNE**. Elmstead Lane, Bickley, 1944. Holwood Park PCH. Hollows Wood, SE of Chelsfield, 1945. Joydens Wood PCH. Upper Hockenden PCH. Bunkers Hill, N Cray PCH. Farningham Wood, PCH, (82!).

3) Bysing Wood. Thornden Wood. Trenley Park Wood.

5) Wood W. of Shoreham PCH. Woods Darwins Bank, Downe, JEL. 396611 hedge of copse PCH.

6) Mounts Wood PCH. Horton Kirby Wood PCH. Fawkham Ch[urch] DVS Woods. Preston Hill PCH. Bank by Rd. Birling Hill top, 62. Rd Bank N of Harvel 62.

6a) Cockham Wood Upnor, 1960 **MNE**.

7) Warren Lane bank, E of L[owe]r Bell '62. Bluebell Hill '57 EGP **MNE**. Rd bank, top of Coxett Wood (Thanet S[and]) 62.

8) Temple Ewell: Bridge JG.

11) Sandling, EGP, 1957 **MNE**. Ryarsh Wood (SE corner on F[olkestone] Sand) 1945 **MNE**. Barming, S. of Fountain Inn, H.L. 1903 **MNE**. Copse Golden Square Smarden 885415, '62. Beult Bank N of Buckmans G[ree]n 889419, '62. Beult E of Buckhall, Bethersden, 918397, '62. Str[eam] bank SE of Golden Sq[ua]re Smarden, 887412, '62.

13) Stone Cross, Ashurst, 523388, 1959, CAS. E. of Bidborough Ch[urch] HNC. Sadwell Wood, Speldhurst, GE Shaw. 1m N. of Goudhurst (Horsmonden Road) 1979.

16) R[ai]l[wa]y near Sandling Junction.

P. bulbosa L.

15

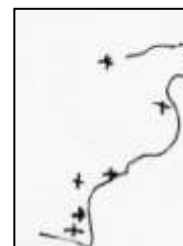
6/51

[Bulbous Meadow-grass]

¹⁵⁶ Listed, but without any entries.

¹⁵⁷ Listed, but without any entries.

Native. Fixed dunes and old dune pasture, turfed shingle beach, sandy cliffs: locally abundant on the E. Kent coast in 4) and 15), at Swalecliffe in 3), unrecorded elsewhere. Very locally abundant on the Sussex coast and westward on that of Hants and Devon: unrecorded for Essex and only adventives in Surrey, but it occurs rarely on the Suffolk and Norfolk beaches and in the Pas de Calais. Commoner on the Kent coast than in any other part of England.



3) 16 Beach, Swalecliffe, P.R. Bell 16.

4) 35 Fixed dunes, Deal Links, 1961, 35. 35 Sandwich Bay; 1946: 35 E. of Downs Farm, '62. 35 St Georges Links 1946-61 **MNE**. 35 Walmer Beach, 1946.

5) Ancient dunes, S. of West Hythe, '62 **MNE**. Beach W. of Hythe, rare, 1946-55 **MNE**. N. of Lighthouse, Dungeness, abund[ant] 1948-68 **MNE**. By A259, Romney Warren, 1947-62 **MNE**. Littlestone beach, 1958, **MNE**. S.W. of Lydd, J.H.L., 1946. N.E. of Littlestone, 1962, E.S.

16) Folkestone Leas, W. end, 1946, abund[ant] **MNE**; 1954 E.S. **MNE**.

Dactylis L.

D. glomerata [L.]

[Cock's-foot]

1) Crofton Heath PCH. Holwood Park PCH. N Cray Wood PCH. Bexley Ch[urch]y[ar]d, PCH. Ruxley pits S&S. Shooters Hill GMB. Farningham Wood 82. Blackheath, GMB. Wood, near Mill below Keston Common '55 **MNE**. W. Wickham (Skid Hill) AGD 1915 **MNE**. Woolwich Common 1934 LRA **MNE**. Joydens Wood PCH.

2) Sewerbank, Plumstead PCH. Woolwich Arsenal PCH. Medway bank above Aylesford '55. S. Minster Marshes '55. Minster ch[urch] y[ar]d '55. Scrapsgate '55. Scrub S. of Scrapsgate '55. Brambledown R[ai]l[wa]y '55. Brambledown oak wood '55. Leysdown village '55. SE of Leysdown '55. Warden Ash copse '55. Eastch[urch] cliffs '55. Shellness.

3) Canterbury G[olf] Course '55. Dry Pasture S. of Highstead, Hoath and to SE, '62.

4) Sandwich Bay. Track, 271690, N of St. Nicholas '62.

5) Larches Wood W of Farnborough PCH. Field W. of Shoreham PCH. Pilots Wood, PCH. Pilgrims Way, Polhill PCH. Chevening Park PCH. Darwins Bank 1969, 396611 PCH.

6) Mounts Rd PCH. Swanscombe Wood PCH. R[oa]dbank Foxendown Hill, Meopham '62. Gravesend Aerodrome 1937 LRA **MNE**. Preston Hill Wood PCH. Kemsing Downs PCH.

7) Halling Warren PCH. Burham Downs HL [18]96, 62! **MNE**. Upper Bell '55. Warren L[a]n[e] L[owe]r Bell '62. Pilgrims View 62. R[oa]dside Hartlip Hill 55.

8) Westwell W.Hanger '62. Broad Downs '62. Brook Hillock 62. ENE of Giddy Horn 62! 137508 SE of Petham MEM. Stafflands Wood (ch[al]k) '62. Beech Plant[at]io[n] E side Goodnestone P[ar]k 62. Wolverton Wood edge '62. R[oa]dside Kearsney '55. Free Down '62.

10) Knole Park PCH. Otford PCH., R[iver] path N of Shoreham PCH. Eyn sford PCH. Waste g[rou]nd S. Darenth. St Johns Jerusalem PCH. Sevenoaks tip CAS. Westerham Wood 82.

11) E Wood SE of L[owe]r St Clare '55. Old wall, Friars '62. Holt Wood Aylesford '55. Gravel pit E of Aylesford '55. R[oa]dside E of Mereworth '55. W. of Bearsted by A20 '55. Park Wood Boughton Mon[chelsea] '55. Near Riverbank SE of Watlington 1957 **MNE**. Pendenden Heath 1850-1956 **MNE**. Maidstone 1886 HL – 1957 EGP **MNE**.

W 1/4m N of Bough Beech '55. 1m N of Bough Beech (w[oo]d by str[eam] WC) 55. R[ai]l[wa]y bank, Hildenborough 563482 CAS. Tonbridge Castle 55. Whetsted by B2015 '55. By R[iver], E of Golden Sq[uare] Smarden '62. SE of Buckhall, Bethersden, 62. SE of Buckhall, Bethersden, 62. Copse by Beult Buckmans Green 889419, 62.

13) Stone Cross, Ashurst, 159 CAS. South Park Pasture, Penshurst, '62. Southoroug HNC. Bayham Abbey CAS.

14) Knock Wood R[oa]dside E of Tenterden '62.

15) Dungeness near Lighthouse.

Catabrosa [P.] Beauv.

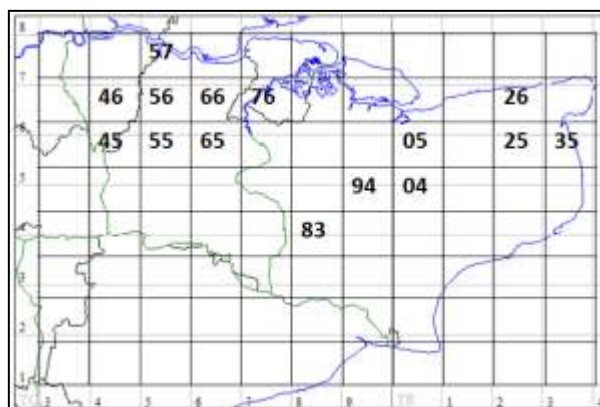
C. aquatica (L.) [P.] Beauv.

[Whorl-grass]

1) Near Ravensbourne W.W., Bromley, 1908, S.E.C. Hb. Croy. 46 Orpington Park, PHC.

2) 76 Holborough Marshes, 1946.

4) 26 Deerson Marshes, Preston, 1956 **MNE**.



[Wickhambreaux, 1929, PHC.] 25 Marsh ½ m. N. of Wingham 1956 **MNE**. 25 Wenderton Dikdes, BN. 35 Worth Minnis 1956-60 **MNE**. Chislet, 1949, L.W.W.

10) 45 Chevening, PHC. 55 S. of Otford in meadows GMB, '56. Sutton C[or]n[e]r, Darenth, PCH, 1956. 57 Sutton C[or]n[e]r, by Darenth Bridge, PCH, 1956. 56 Horton Kirby by Bridge PCH.

11) 65 Leybourne, '44. 66 By Stream, Lunsford Lane, E. Malling, 1962, R.W. English. 65 Plaxtol, '44. 83 Biddenden, '44.

12) 94 Pond SW of the Common, Hothfield, 1943, **MNE**. 04 Ditch, Longport Bridge, Willesborough. 04 Ditch, Mersham Mill, 1952, CNP. 05 Meadows, Chilham near Bagham Mill, 1947 **MNE**.

Catapodium Link

C. rigidum (L.) C.E. Hubbard 15, 16 [Fern-grass]

1) Hayes. Keston. Farningham Wood.

2) Stone Marshes 575755, HMP. Shellness, Sheppey. [Sheppey AE Davis 1917 **MNE**.] Swanscombe Marshes. Grain 1945 **MNE**.

3) 16 Old R[ai]l[wa]y, S of Whitstable, 1959, HMW. 16 Shore to W of Whitstable. Bysing Wood HMW. Reculver Wall near Ch[urch] M.E.M. Whitstable Castle Row.

4) Deal Links. Sandwich Bay 1946-62 **MNE**. Richborough 1946 **MNE**, '95! (Castle). Pegwell Bay.

5) on chalk – steps N. of A.20, W. of Farningham Xroads, PCH. Chelsfield Ch[urch]. Down W. of Shireham 1945 **MNE**. Polhill Place Lrag 1934 **MNE**. Polhill above Tunnel 1948 **MNE**. Pilgrims Way, Westerham, RAC. Lane bank NE of Brasted RAC.

6) Mounts Wood. Swanscombe Wood, PCH. Greenhithe, M[oun]ts R[oa]d, 1945 **MNE**. Downs E of Wrotham 1959 **MNE**. S edge of Cobham Great Wood 1944 **MNE**. Ryarsh Downs 1943 **MNE**. Path in wood, N. Haling, PCH. L[ocally] a[bandant] Cockham Wood Upnor 1960 **MNE**.

7) Hollingbourne Hill 1959 **MNE**. Highsted pits DMCC.

8) Chilham Hill ES. Down ENE of Giddyhorn 1962. N of Arpinge 1991. Down N. of Pean BW. Woodville wall. Chalk bank Bonnybush Hill, Kingston '62. Folkestone Downs 1961 **MNE**. ...Abbots Cliff 1960 **MNE**. Lydden Spout 1958 **MNE**. Shakespeares Cliff 1955 **MNE**. Dover E. Cliff 1953 **MNE** 1955. Oldstairs Bay 1956 **MNE**. River, KDR. Bridge JB. Langdon Bay, Mrs. B. Dodds. St Margaret's Bay 1955, DP Murray.

10) Dartford 1862 **MNE**.

11) Ditton S. Quarry 715566 CAS. Aylesford Sandpit 1857 EGP **MNE**. Walls, E. Malling. W. Malling. Boughton Mon[chelsea] ch[urch] y[ar]d DMCC. R[ai]l[wa]y Bridge parapet, 573460, NE of Haysden, Tonbridge, 1959, CAS.

12) Canterbury, old walls, DHK. Chilham Station platform, 1945, DHK.

15) Ancient dunes S. of W Hythe '62. Hythe W. Shingle Beach BW. Dungeness 1954 **MNE**. W of Galloways, JHL, 1947. W of Hope & Anchor, P. le Brocq.

C. marinum (L.) C.E. Hubbard [Sea Fern-grass]

2) Isle of Grain, E.S.M.; S. beach, 1947 **MNE**. Shellness beach, 1945- 1959-...-62 **MNE**. Oare Creek 1959 **MNE**. Beach W. of Seasalter 1959 **MNE**, 098657, HMW.

3) Whitstable, RGW. Reculver, wall near Ch[urch], MEM.

4) Danes, Deal Links 1954-61 **MNE**. Sandwich Bay, 1946-62 **MNE**. Shingle beach, Walmer. Shingle beach, Kingsdown.

8) 250 yds SE of Pope St[reet] Fm, Godmersham, 1954, P. le Brocq, 077512. Shakespeare Beach, Dover, KDR.

15) Dymchurch. Romney Warren 1945 **MNE**. Littlestone 1947 **MNE**. Greatstone. Dungeness, 1954 **MNE**. Hythe, JG, 1930.

16) Folkestone Leas cliff 1945 **MNE**. By Sandgate Castle, 1955 **MNE**.

(**Sesleria coerulea** (L.) Ard.)¹⁵⁸

[Blue Moor-grass]

Parapholis C.E. Hubbard¹⁵⁹

P. strigosa (Dumort.) C.E. Hubbard {Hard-grass}

2) Stone. Northfleet. Shorne. Higham. S. of Stoke E of L[owe]r Stoke **MNE**. W of Upnor. Cuxton **MNE**. Snodland, 1899, H.L. **MNE**. W of Upnor. Funton. Shellness. Harty. Horrid Hill Rainham, 1950- **MNE**. Faversham Creek. W. of Seasalter, Saltings, HMW. Sheerness, 1918, AED **MNE**. Motley Hill, Rainham 1951

¹⁵⁸ Listed in the manuscript after *Melica*, but no entries given (and not a Kentish plant, anyway).

¹⁵⁹ Follows *Phalaris* in the manuscript.

MNE. Conyers Creek **MNE.** Tonge N of Blacketts DMcC **MNE.** Oare Creek 1958, 1959 **MNE** 1962 HMW. Grain **MNE.**

3) Swalecliffe Sea Wall, 1959, HMW. W. beach, 103664, Whitstable HMW. Salting, behind beach, N. of St. Nicholas, 266692, 1962. Pegwell Bay 1946 **MNE.** Shellness Saltings, & to S., S. of Mouth of Stour.

15) W of Hythe 1947 **MNE.** Dymchurch, 1947. St Marys Bay, 1947, **MNE.**

P. incurva (L.) C.E. Hubbard

[Curved Hard-grass]

*1938: BEC, 1938, p.67.

2) Grain N. Beach, 1945 **MNE.** Grain S Beach, 1955 **MNE.** Beach below Upnor, 1960 **MNE.** SW of Upnor, 1951 **MNE.** Cuxton NE of Station, 1951 **MNE.** Shellness 1956 **MNE.** By Oare Creek, 1959 **MNE**, 1962 HMW.

4) Shellness, Sandwich, 1952 **MNE.** W of Minnis Bay, 1961, HMW.

8) Shingly bank above sea wall, at cliff base, Lydden Spout 1953-5 **MNE.** Ditto, below Abbots cliff 1960 **MNE.**

9) Westgate 1946, C.E. Hubbard.

15) Littlestone, Lady D, 1902. Dymchurch, CPSK.

Glyceria R. Br.

G. maxima (Hartm.) Holmberg¹⁶⁰

[Reed Sweet-grass]

1) Beckenham Place, PCH. Stream W. of Orpington, Swain. Ruxley Pits, S&S. 51/46 Orp[ington] '55

2) Dartford Marshes, 541761, '62. Northfleet Brooks, 1944. Ham Hill ...PGA. Snodland Marshes. New Hythe '53 **MNE.** Aylesford, W of Eccles by Medway l[ocally] d[ominant]. Luddenham Marshes. HMW.

51/47 Woolwich; 51/76 Medway; 51/96 Teynham '36; 61/06 Fav[ersham]; 51/57 Dart[ford]; 51/67 Gravesend, c.'58. Not rec[orde]d for 51.77 Higham nor Sheppey or Grain, 51/89, 51/97, 61/07.

3) Pond, Kites Fm, Swalecliffe. Whitstable Harbour, REW.

4) Wingham, Ham Fen →1991. Hacklinge Marshes→1991. Worth Minnis. Marshside Chislet 225661, '62. Preston Marshes '62. 36 Minster Marshes, 1963. Woodnesborough. Stodmarsh, 1955 **MNE.** By Stour dikes below Sandwich, P.W.W. Wenderton Dikes, BN.

61/25 Wingham '55; 61/35 S[and]wich; 61/16 Sturry; 61/26 Stodmarsh; 61/36 Thanet '55.

10) Riverhead, Bradbourne Meads, FSEF. R[iver] below Shoreham PCH. St. Johns Jerusalem PCH. Darenth.

51/45 W[ester]ham; 51/55 S[even]oaks; 51/56 Farn[in]gh[a]m

11) Ryarsh. 1½ m N of Hadlow. E of Tonbridge. S of Yalding. R[iver], Wateringbury. R[iver], Teston. Pond E of Hale Street CAS. Chiddingstone. Penshurst. N of Collier St[reet]. Marden. Medway W of Tonbridge CAS. Allington. Maidstone, EGP, 1957 **MNE.** 849137¹⁶¹ Pond E of Headcorn, '62.

51/44 E[den]br[idg]e; 51/54 Tonbr[idg]e; 51/64 E. Peck[ham]; 51/74 Marden; 51/84 Headcorn 58; 51/65 W[est] M[alling]; 51/75 M[aid]stone; 51/66 Birling '56.

12) Stour, Hothfield. Gibbons Brook. Stour, Ashford to Wye ←→. Ponds Ashford. Stour G[rea]t Chart, Bybrook. Ponds SW of Kingsnorth. Eyegate Mill. Mersham dikes. Pond, Wootton Manor Westwell. Brook. Brickfields S of Wye. Blackwall Marshes. Stowting Marshes.

51/94 W Ashford; 61/84 E. Ashford; 61/14 Stowting 55; 61/05; 61/15 C[anter]bury.

14) Breeches Pond.

51/83 Tenterden

15) Shirley Moor 1945 **MNE.** Dungeness. Brenzett. Sandhurst Levels 1954 **MNE.** Appledore. Kenardington. Ruckinge. Ham Street. R[oyal] M[ilitary] Canal.

61/01

Dungeness; 51/82 W. of Oxney; 51/92 Appledore; 61/02 Romney; 61/13 Hythe; 61/03 Ham St[reet]; 51/93 Shirley M[oor].

G. fluitans (L.) R. Br.

[Floating Sweet-grass]

1) W. side Avery Hill Lrag, '34 **MNE.** 36 Pickhurst Road, PCH. Shooters Hill, G.M.B. Ruxley pits, S&S. Pond in Farningham Wood, PCH.

2) Dikes Dartford Marshes 541761, 62. Higham Marshes PCH. High Halstow Marshes, 1958 **MNE.** All Hallows, Dike, AGS. Tonge Marshes, DMcC, 58, **MNE.** Graveney Brickworks, H.M.W. 06 Seasalter ditches, HMW.

3) Str[eam] N. of Brotherhood Fm, Blean, 135603, 1955, P. Furneaux. Pond, W side of Bldean CAS, '56.

4) Minster Marshes. Worth. Hacklinge.

6) pit N of Shorne 694735, PCH.

10) Meadows N. of Bat & Ball, Sevenoaks, 1950 **MNE.** Wildernesse Park Seal '44 **MNE.** Wood Childsbridge Kemsing 543585 (Gault) CAS. Pond, Rose Wood, Ightham, 1944.

11) Addington Place, DMcC. Pond, The Quest, Harrietsham, BD. W. of Teston Bridge 59 **MNE.** Pond E of Hale St[reet] '56 **MNE.** By Straight Mile, Tonbridge, 1960, CAS. Poundsbridge, nr Medway, 1963, R.E. Sh. Pond E. of Golden Sq[uare], Smarden, 886415, '62. Kelsham Pond, Headcorn '56 **MNE.**

¹⁶⁰ Placed at the end of *Glyceria* in the manuscript.

¹⁶¹ Grid reference is plainly wrong: perhaps TQ849437?

12) SE of Lenham Church, Marsh on Gault, 60 **MNE**. Marsh N. of Willesborough [sic] '55 **MNE**. Willesbrough Lees '45 **MNE**. S. Willesborough [sic] Marshes. Gibbons Brook ES. "Scotts Pond", Stubbs Cross '52 **MNE**. Stile Fm., Chilham, RGW. Dikes, Thannington Ford, 127567, P. Furneaux 1955.

13) By Stream, High Rocks Lane, T[unbridge] Wells, CAS, 1960. Pond, Broadwater La[ne], T[unbridge] Wells, CAS 1960. Stone Cross Gill Ashurst, '59, CAS. Ditch S. of Ch[urch], Lamberhurst 684365, CAS. Pond, Kippings Cross, 1957, CAS. Southborough Pest. F[iel]d, HNC. Bayham Abbey, CAS. Combwell Wood, 1979.

14) Pond nr Palustre Court, Wittersham 58 **MNE**.

15) Windmill Channel Rolvenden '59, **MNE**. Shirley Moor, 1965.

16) Holywell, Folkestone.

G. fluitans x plicata = G. [x] pedicellata Townsend

1) Bowman's Hollow, Plumstead, 1934, LRA **G**.

2) Snodland Marshes, JPMB. Tonge, DMcC.

4) Marsh NE of Wickhambreaux '56 **MNE**.

7) Marsh, Whitehill, Ospringe, 1959, **MNE**.

10) Marshy Meadows N. of Bat & Ball, 1950. R. Darent, Westerham, AGS, 1957.

11) Ryarsh Wood '43 **MNE**. Maidstone, EGP, '61, **MNE**. Bearsted EGP & GHM, '59 **MNE**. Nr Boxley Abbey, EGP. Ayleford, EGP. Harrietsham, 1944, FR & LJM.

15) Ditch, Burmarsh Rd, Hythe, LJM.

G. declinata Bréb.

[Small Sweet-grass]

1) Brook Hosp[ital] Woolwich, LRA **G**.

4) Hacklinge, 1945-1991. Plucks Gutter 1955 **MNE**. Little Britton Fen, Wingham, 1960 **MNE**. 36 Minster Marshes, 1963.

8) Gate Inn Pond, DACL.

10) Squerries Park, Westerham, 1957, RAC. Westerham Wood, 82. Wilderndesse Park, Seal 1944 **MNE**.

11) Ditch, Straight Mile, W of Tonbridge, 1960, CAS. Gilridge, Penshurst, 1944, **MNE**. Hoads Wood, 1946.

12) Hothfield Common, P.R.B. 1946. Little Chart, 1946. SE of Lenham Ch[urch] on Gault '58 **MNE**. Cuckoldscombe, 1995!

13) T[unbridge] Wells Common, JPMB, BEC 1938 rep. P.65. By stream, High Rocks Lane, T[unbridge] Wells, 1960, CAS. Brighton Lake, T[unbridge] Wells, 1960, CAS.

G. notata Chevall.¹⁶²

[Plicate Sweet-grass]

2) Plumstead Marshes, 1944. Gravel pits, Aylesford, EGP, '58 **MNE**. Stream, L[owe]r Halstow, 857669, '62. Oare Pond Meadow 59 **MNE**. Abbey Fm, Faversham, HJN.

3) Denstroude, Pond, HMW.

4) Fen N of Wingham. Fen SE of Wingham 49 **MNE**. Wenderton dikes BN. Ham Fen. Hacklinge 1956 **MNE**. Worth Minnis. Ditch, NE of Sandwich PWW. 36 Minster Marshes, 1963. Chislet Marshes MEM.

10) Chipstead by R. Darent '55 **MNE**. NE of Riverhead. Meadows N of Bat & Ball, Sevenoaks, 1950 **MNE**. Shoreham. Darent. Westerham Wood 82.

11) Leybourne. Ham Hill, Birling. Trottiscliffe. Ryarsh. Bearsted EGP 57 **MNE**. Nr. Boxley Abbey, EGP '58 **MNE**. Maidstone H.L. 1895 **MNE**; EGP, 61 **MNE**. Harrietsham, R. Len Fairbourne Lane, BD. Mote Park, '58, '59, EGP **MNE**. Hartlake Br[idge] JRW '43 **MNE**. By Nedway, Poundsbridge, 63 R.E.Sh. Marden. Headcorn. W of Teston Bridge, 59 **MNE**. Barming by Medway '59 EGP **MNE**.

12) Coldridge Wood S. of Lenham, 1958, Miss M.E. Milward **MNE**. SE of Lenham. Stowting Fen, '54 **MNE**.

13) Ditch by Hawkenbury Bog, CAS. Pond N. of Kippings Cross, 6444901, 1957, CAS. Cranbrook, DS.

14) 50 Acre Wood, Woodchurch, ES.

16) The Lince, SE of Etchinghill, 54 **MNE**.

Melica L.¹⁶³

M. uniflora Retz.

[Wood Melick]

1) Abbey Wood, 1862 **MNE** – RAB. Elmstead Kane Bickley, 1965. Holwood Park PCH. Woods W. of Keston Common. Bukers Hill Wood, N. Cray PCH. Joydens Wood PCH. Farningham Wood PCH (82!). Eden Park, Beckenham 1918 AGD **MNE**. Shooters Hill GMB. Dartford Heath GMB. Hollows Wood.

¹⁶² Given as *G. plicata* Fr. in the manuscript, and placed before *G. declinata*.

¹⁶³ Placed after *Briza* in the manuscript.

- 5) Brasted Hogtrough Hill 396611 PCH. Wood on downs W. of Shoreham PCH. Darwins Bank Wood, Downe, 1962. Lane SE of Downe 1962. Pilots Wood PCH. Woods by A21 Polhill. Shady R[oa]d banks Foxendown Hill 62, Birling Holt top 62, N of Harvel 62.
- 6) Darenth Wood PCH. Lords Wood Darenth PCH. Mounts Wood border PCH. Horton Kirby Wppd PCH. Fawkham by ch[urch] DVS Woods. Woods above Wrotham, Wrotham Water→Vigo, Trottiscliffe. Dunstall Woods PCH. Preston Hill Woods on chalk PCH. Magpie Bottom Woods. Pilgrims Way E of Wrotham PCH. Wingate Wood, Halling 1945 **MNE** 1954 PCH.
- 7) Warren La[ne], L[owe]r Bell, '62 **MNE**, 1951... Squirrels Wood, Stockbury 1953 **MNE**. R[oa]dbank, Coxett Wood (Thanet S[and]) 1945 62 **MNE**.
- 8) Spong Wood, MJ Comyn. Copse N. of Bavinge (basic loam) '62. Lane N. of Bossingham '62. Bank, Wood W. of Misling Fm Elmstead (loam) '62. Reinden Wood (on Pliocene) by track '62. Rd. Below Hawkinge Church. Larkey Valley Wood (albiflora) ES 1955 **MNE**. Hurst Wood, Hassel St[reet], Wye, CAS 1961 (albiflora). Coombe Vale Woods Dover '55.
- 10) Westerham Wood 82! Brasted Chart 82!
- 11) Sandling Wood 1957 EGP **MNE**. Warren Wood, E. Malling 1963.
- 13) Springline W. of Southborough HNC. Lane S of Bullingstone, 1966. Groombridge Hill, E. Shorrock. Combwell Wood 1979.
- 14) Gill (Ash S.) S. of Pigeon Hoo, SE of Tenterden, '62.
- 16) Blackhouse Shaw Saltwood Brockhill, LJM.

Helictotrichon Besser ex Schukt. & Schult. f.¹⁶⁴

H. pubescens (Huds.) Pilg.

[Downy Oat-grass]

Native. Chalk grassland, very common and general; also on fixed dunes at Sandwich Bay, locally abundant

- 4) Fixed dunes, St. Georges Links, Sandwich Bay, 1950-63 **MNE**.
- 5) Chevening Park 1961 **MNE**. Darwin's Bank Downe, 1961 **MNE**. Down 426577 W of Westerham Hill RAC.
- 6) Magpie Bottom, 1949, **MNE**. Upper Halling Downs 1943 **MNE**. N. of Cuxton 1951 **MNE**.
- 7) Burham Downs 1946-63 **MNE**. Bluebell Hill **MNE**. Thurnham 1959 EGP **MNE**. Harrietsham Ch[urch] y[ar]d, B.D. Down, Filmer Wood, '62. Belmont Park, Throwley, 1959 **MNE**.
- 8) o[ccasional] – l[ocally] f[requent], Broad Downs, 1962. Downs ENE of Giddy Horn '62. Down N of Podlinge '62. Postling Downs 1945 **MNE**. N. of Pean, BW. Free Down, N of St Margarets DPY. Down SW of Lydden DPY. Charlton Park, Bishopsbourne, 146, **MNE**. Ch[al]k Bank, Bonnybush Hill, Kingston '62. S. of Wolverton, Alkham, 1949 **MNE**. Lydden Sput, 1951 **MNE**. Woodville Downs, 1952-55 **MNE**. Langdon Bay, Dover, 1954 **MNE**.

H. pratense (L.) Besser¹⁶⁵

[Meadow Oat-grass]

- 5) Darwins Bank, Downe, 1958-1961 **MNE**. Chevening Park, 1961 **MNE**.
- 6) Upper Halling Downs.
- 7) Burham Downs, 1946 **MNE**. Down, Foxbury Wood, E. of Lenham, 1946 **MNE**. Downs ½ to 1m. NE of Lenham, 1956-58 **MNE**. "Simia" down, HMW. 94 Westwell Downs, ES.
- 8) Winchcombe Fm, Crundale, 1956 **MNE**. Charlton Park, Bishopsbourne, 1946 **MNE**. S. of Hastingleigh 1960 **MNE**. A[bundant], Broad Downs, Brook, 162 **MNE**. Postling Downs. Down at Shuttlesfield, Lyminge. SE of Etchinghill. Summerhouse Hill, 1948 **MNE**. E. of Folkestone, above Abbots cliff, on loam head, 1960, **MNE**. Free Down, 1954, **MNE**. Kingsdown Golf Course, 1954 **MNE**. N of Alkham 1955 **MNE**. Temple Ewell (Woodville Downs) 1955 **MNE**. Coombe Vale, W of Dover, 1959, **MNE**. Down SW of Lydden DPY.
- 9) Chalk grassland, Kingsgate, Thanet, 1959 **MNE**.
- 11) Meadows, Aylesford, 1943.

Arrhenatherum [P.] Beav.

A. elatius (L.) {P.} Beauv ex J & C. Presl

[False Oat-grass]

- 1) R[ai]l[wa]y banks Erith PCH. Crofton Heath PCH. Bexley Ch[urch] y[ar]d PCH. ByR[iver], N. Cray PCH. Blackheath GMB. R[oyal] M[ilitary] A[cademy], Woolwich 1934, LLAG **MNE**. Shooters Hill. Ruxley pits. Farningham Wood 82.
- 2) Woolwich Arsenal PCH. Sewer Bank, Plumstead PCH. R[ai]l[wa]y Brambledown '55. Shellness. Medway above Aylesford Br[idg]e 45. Medway below Aylesford Br[idg]e 45. By str[eam], L[owe]r Halstow 857669, '62.

¹⁶⁴ Cited as Bess. In the manuscript and with the order of species reversed.

¹⁶⁵ Cited as (L.) Pilg. In the manuscript.

- 3) Old Park, Canterbury '55. Shelving Wood and copse to W, Highstead, Hoath (Thanet and Wool[wich] Beds). (**var. tuberosum** –common in Blean, copses and wood borders, RGW.)
- 4) Rear of fixed Dunes, Sandwich Bay. Shingle Beach, Walmer; Kingsdown.
- 5) Farningham R[oa]d St[a]t[io]n Approach PCH. Chalk W. of Eynsford, PCH.
- 6) Mounts Rd, PCH. Horns Cross pit '62. Preston Hill PCH. R[oa]dside Luddesdown PCH.
- 7) Below Downs N. of Village Boxley 62.
- 8) 137608 Down SE of Petham MEM. R[oa]dside (ch[al]k) Bonnybush Hill Kingston '62. Beech pla[nta]t[io]n (ch[al]k) E side Goodnestone P[ar]k '62. Wolverton crossroads, Alkham '62.
- 10) St Johns Jerusalem PCH. Westerham Wood 82.
- 11) Rag[stone] Quarry N. of Yalding 62. Green lane E of Headcorn 849137, '62. R[ai]l[wa]y bank Hildenborough 563482 CAS. W. R[oa]dside Whetsted 1945.
- 13) Stone Cross, Ashurst, '59 CAS. Southborough Garden HNC. Bayham Abbey CAS. Combwell Wood 1979.
- 15) Dungeness Beach, v[ery] abund[ant]. Hythe Beath, v[ery] a[bundant].

Avena L.¹⁶⁶

A. strigosa Schreb.¹⁶⁷

[Bristle Oat]

- 8) Adisham, 1948.

A. fatua L.

15, 16

[Wild Oat]

Alien, usually only casual in waste ground and in crops: rare.

- 1) Woolwich, near stadium, 1934, L.R.A.G. M[ar]k[e]t g[ar]d[e]n, Bromley, DPY, 488675. W Arsenal, PCH. Swanscombe Marshes, PCH. [Stone Marshes, 1831, R.P. **BM.**] W. of Seasalter HMW. Conyer Creek Mrs B. Dodds.
- 2) Bobbing, Mrs Henson. Tonge DMCC.
- 4) Wingham Well, 1958 MNE. Worth, oatfield, 355555, DACL & KDR.
- 6) N of Stansted 605625 DVS Woods. Trottiscliffe, Mrs Bigg.
- 7) Belmont Park DMCC. Westwell cornfield, G. Morgan.
- 8) Selstead in oats 211454 / W of Halfway Ho[use], Barham 228488, 1955, DACL. Denton 1955 DACL. Bourne Park DACL.
- 9) Cornfield W of Minster, Thanet, 1958 MNE.
- 10) 7oaks tip CAS.
- 11) Edenbridge Tip, D.P.Y., 1955.
- 15) Arable N.W. of Wittersham, 1958, MNE.

var. pilosissima Gray

- 11) Staplehurst, E.S.M., Hb. Dr., det. Marquand; *BEC Rep.* 1921, p.402.

A. fatua x sativa (A. sativa) L.

- 2) Sandpit W of All Hallows, 1958, AGS.
- 7) Between Bluebell Hill and Boxley, 1899, H.L., MNE. Near Highsted, DMCC.
- 9) Joss Bay, Mrs B. Dodds.

A. sterilis L.¹⁶⁸

[Winter Wild Oat]

Alien, only casual in Kent in arable land, etc.: rare.

- 1) Woolwich Common, 1934, LRA **MNE.**
- 3) Medina Av[enue], Seasalter, HMW.
- 4) SW of Grove, 28.7.1963, E.G. Philp **MNE.** Near Chislet, 1958, Miss M.E. Millward **MNE.** S of Plucks Gutter MEM
- 7) In crops, Godmersham, 1946, DHK, **K.**
- 9) N. of Minster in arable '63.
- 10) Rubbish Dump, Dunton Green, 1958, R.C. Palmer, det. C.E. Hubbard.
- 11) E. Farleigh, 1957, E.G.P., **MNE.**

¹⁶⁶ Follows *Koeleria* in the manuscript.

¹⁶⁷ In the manuscript, with *A. byzantina*, placed at the end of the *Avena* species.

¹⁶⁸ In the manuscript given as *A. ludoviciana* Durieu.

A. byzantina

6) Longfield tip DMCC.

Trisetum Pers.¹⁶⁹

T. flavescens (L.) P. Beauv.

[Yellow Oat-grass]

- 1) Woolwich common 34 Lrag **MNE**. Blackheath GMB. Repository Grounds 34 Lrag **MNE**. Ruxley pits.
- 2) I[sle] of Grain 1945 **MNE**.
- 4) Sandwich Bay.
- 5) S. of Green St[reet] Green, '34, Lrag **MNE**. Larches Wood W. of Farnborough PCH. Down NE of Pilgrim Ho[use] Westerham '62.
- 6) A.2 verge, Swanscombe Wood, PCH. Trottiscliffe Downs '45 **MNE**. Downs E of Shoreham PCH.
- 7) Bluebell Hill, EGP, 1957 **MNE**. Down E. of Lenham 1956 **MNE**. Glade foot of hanger W of Westwll 62.
- 8) I[ocally] f[requent] Broad Downs 1962. L[ocally] a[bundant] Down NNE of Giddy Horn '62.
- 10) Meadow, Darenth, 1954 **MNE**. St Johns Jerusalem PCH.
- 11) Sandling Wood EGP 57 **MNE**. Tonbridge CAS. Pluckley 1943 **MNE**.
- 12) Stubbs Cross 1952 **MNE**. R[oa]dside, G[rea]t Priory Wood, Bilsington '56 **MNE**.
- 15) Hythe W Shingle Beach BW. Shirley Moor '65.
- 16) Shornecliffe, KDR.

Koeleria Pers.

K. macrantha (Lebed.) Schult.¹⁷⁰

[Crested Hair-grass]

- 1) [Chislehurst Common, 1885 **MNE**.] Blackheath G.M.B.
- 4) Deal Links. St Georges Links. Sandwich Bay, 1945-63 **MNE**.
- 5) Chevening Park? Darwin's Bank, Downe, 1961 **MNE**.
- 6) E) Green Street Green Common, 1944 **MNE**. By Windmill, Shorne (grass-heath on Blackheath Beds) 1946 **MNE**.
Downs above Trottiscliffe, PCH. Upper Halling **MNE**.
- 7) Burham Downs 1947-54 **MNE**. Bluebell Hill 1945 **MNE**. Boarley Warren, 1945 **MNE**. Queen down Warren '54 **MNE**. Pilgrims W[ay] E of Lenham 1958 **MNE**. Downs E of Lenham (Foxbury) 1946 **MNE**.
- 8) Chartham Downs, 1949 **MNE**. Broad Downs, I[ocally] f[requent] '62. Ch[al]k bank, Bonnybush Hill, Kingston, '62. Folkestone Warren **MNE**. Abbots Cliff **MNE**. Free Down, I[ocally] f[requent] 1962. Ringwould Lince, 1954 **MNE**. Kingsdown Golf Course 1954 **MNE**.
- 9) Cliff top, Kings gate, Thanet, 1959, **MNE**.
- 11) Ryarsh Sandpits, 1945 **MNE** (F[olkestone] sand).
- 12) A.20 bank 2m E of Ashford, 1954 **MNE** (F[olkestone] sand).
- 15) Fixed dunes, Romney Warren, by A.259, '62 **MNE**. Greatstone dunes, + Littlestone **MNE**. Old Dunes S. of W. Hythe '62. Hythe Shingle beach 1955 **MNE**. Dungeness, 1954 **MNE**.

K. albescens DC. was reported at Sandwich by W. Barton (*BEC Rep.* 1914). Dr C.E. Hubbard considers the Briish plants reported under this name as indistinguishable from *K. cristata*.¹⁷¹

Deschampsia [P.] Beauv.¹⁷²

D. cespitosa (L.) [P.]. Beauv.

15, 16

Tufted Hair-Grass

Native.

- 1) Eltham Common 34 Lrag **MNE**. High Wood, Crofton PCH. Crofton Heath PCH. Kesron PCH. N. Cray Wood, PCH. Joydens Wood PCH. Farningham Wood on Wool[wich] Beds, PCH, 82! Ruxley pits, S&S.
- 2) Grain, PCH.
- 5) Wood on c[lay] w[ith] f[lints] on plateau, W. of Shoreham, PCH. Copse 396611 PCH.
- 6) E) Mounts Wood, PCH. On Wool[wich] Beds, Darenth Wood! HMP. G[rea]t Chattenden Wood. Plateau Wood above Kemsing PCH. Stoneyfield Wood, Up[pe]r Halling, PCH.
- 7) Kenneling Wood on chalk loam, o[ccasional], '62.

¹⁶⁹ In the manuscript, placed after *Koeleria*.

¹⁷⁰ In the manuscript, *K. cristata* (L.) Pers.

¹⁷¹ i.e. *K. macrantha*.

¹⁷² Follows *Holcus* in the manuscript.

8) by Track in coppice on Pliocene Reiden Wood, 1962. Copse, clay loam, N. of Bavinge '62. Wood on loam W. of Podlinge 62. Yocketts Bank, 1963. Hall Wood Swingfield (ch[al]k) 1962. Sladden Wood Alkham (ch[al]k) 1962. Wood S. of Chilton (ch[al]k) 1955. Woolwich Wood (Ch[al]k loam) '55. Reiden Wood. Puckland Wood (ch[al]k) '62. Stafflands Wood (ch[al]k) '62.

10) Westerham Wood PCH, 82! Bradbourne Meads FSEF. ByR[iver] above S. Darenth PCH.

11) Sandling Wood 1957, EGP, MNE. Kings Wood, Ulcombe. S. of Lock, Yalding, 1957, EGP, MNE. Kiln Wood Lenham, a[bundant] on sandgates [?] and in Alnetum '62. Beult bank S. of Headcorn Ch[urch] 831440, 1962.

12) Hothfield Common 1957 EGP **MNE**.

13) Stone Cross Ashurst 518381 CAS. Wet Wood, S. Park, Penshurst, 1962. PenshurstPark by Pond, M. Mallinson. Brookhurst Wood / Vauxhall Lane, Southborough HNC. Combwell Wood 1979. Shadwell Wood, Speldhurst, 1966. Bayham Abbey CAS. Roundabout Woods, Sherwood estate, S. of Pembury, CAS. Angley Wood, 1957, EGP, **MNE**. Chittenden Wood, 1950 MNE.

14) Robin's Wood. Parsonage Wood, on clay, 1966. (Wad[hurst] Clay) top of Gill W of Tophall Fm, Wittersham. College Wood, Wittersham.

15) Dungeness, 19445 **MNE**.

(D. setacea Huds. Hack.¹⁷³

D. flexuosa (L.) Trin.

15, 16

Wavy Hair-Grass

Native. Dry woodlands and dry heaths on acid sandy or gravelly soils; locally common in such places, but absent from the chalk districts (except where light drift soils occur), from the clay areas from the marsh districts 2), 4), 5), and indeed from the whole coastline. Common in 1), 3), 6E), 10), 11), 12), 13) and 14). An "atlantic " species, much at home in the humid climate of the western Greensands and the High Weald.

1) Hayes Common. Keston Common, **MNE**. 36 W. Wickham Common PCH. Chislehurst Common. St Pauls Cray Common. Shooters Hill, GMB. Hollows Wood, NW of Shoreham. Joydens Wood, PCH. Farningham Wood, 82! Dartford Heath. Abbey Wood, 1862 **MNE**. Woolwich Repository 1934 CH Grindling **MNE**.

2) Bysing Wood. Perry Wood, Selling. Church Wood, RGW. Bigberry Wood RGW.

6E) Darenth Wood. Shorne. Heath at Danaway Newington 1957 **MNE**.

7) R[oa]d bank, Top of Coxett Wood, on Thanet Sand, '62.

8) Whitehill Wood L[owe]r Hardres, on acid capping. B.N. Grassheath on Pliocene N end, Stelling Minnis '62. Oak Wood on Pliocene SW of Lit[tle] Waddenhall '61. Oak w[oo]d, West Wood, Stowting (Piocene) '60.

10) Seal Chart, abund[ant] on Q. pet[raea]-Call[una]-Bet[ula] assoc[iation], '62. Oldbury Hill. Rose Wood Ightham. Brasted Chart. Crockham Hill.

11) Platt Woods. Valley Wood, Wrotham Heath **MNE**. Mereworth Woods. Comp Wood. Oaken Wood, Ditton. Kings Wood Ulcombe.

12) Ashford Warren. Hothfield Common 1943-63 **MNE**.

13) Stone Cross, Ashurst, 523388, '59 CAS. Southborough Common: E of Bidborough HNC. Combwell Wood 1979.

Holcus L.¹⁷⁴

H. lanatus L.

[Yorkshire-fog]

1) Woolwich Lrag, 1933 **MNE**. Blackheath GMB. Shooters Hill GMB. Ruxley pits, S&S. Crofton Heath PCH. Holwood Park PCH. Dartford Heath PCH. Farningham Wood PCH, 1982! Joydens Wood PCH. Bexley Ch[urch] y[ar]d PCH. N. Cray Wood PCH.

2) Woolwich Arsenal PCH. Sewer Bank Plumstead PCH. Shellness.

3) Whitstable, REW. Copse S. of Highstead Hoath, 62.

4) Sandwich Bay.

5) 396611 PCH. Pilgrims Way, Polhill PCH. Chevening Park PCH. Darwin's Bank Downe.

6) Mounts Rd PCH. Swanscombe Park. Horns Cross pit 62. Downs E of Shoreham PCH. Preston Hill c[lay] w[ith] f[lints] PCH. Kemsing Downs PCH. Pilgrims Way E of Wrotham PCH. Wingate Wood, Halling PCH.

7) Base of Hangers W. of Westwell, '62.

8) R[are], Down ENE of Giddy Horn, '62. Wolverton crossroads '62.

10) By R[iver] below Shoreham PCH. By R[iver] above S. Darenth PCH. St Johns Jerusalem PCH. Westerham Wood 82.

¹⁷³ Follows *D. flexuosa* in the manuscript. No entry given, but this is not a Kent plant.

¹⁷⁴ Follows *Arrhenatherum* in the manuscript.

- 11) East Malling. R[ai]l[wa]y bank Hildenborough 563482 CAS. Past[ure] SE of Buckhall, Bethersden 62.
 13) South Park Pasture, Penshurst, '62. Stone Cross, Ashurst, 518381, '59 CAS. Southborough HNC. Bayham Abbey CAS. Combwell Wood 1979.
 14) Felled Copp[ice], Gills of Pigeon Hoo, '62. College Wood Wittersham '62.

H. mollis L.

[Creeping Soft-grass]

- 1) Keston Common. Blackheath, 1946, ECW. Sparrow fields, Swain. 36 W. Wickham Common, PCH. Shooters Hill Woods GMB. Ruxley Pits, S&S. Gattons Plant[atio]n, PCH. Joydens Wood, PCH. Farningham Wood PCH, 82!
 3) Bysing Wood. Perry Wood 1959 **MNE**. Thornden Wood. W. Blean Wood. Ttrenley Park Wood. Shelving Wood Hoath (Oldhaven Beds) '62.
 5) Andrews Wood, Badgers Mount PCH.
 6) **E**) Darenth Wood. Mounts Wood, PCH. Randall Wood, Shorne. Great Wood, Cobham. Holly Hill (Black[heath] Beds) '62.
 7) Top of Coxett Wood (Thanet S[and]) '62. Filmer Wood (sandy loam of valley bot[tom]) '62.
 8) Covert Wood DACL. By Track and in coppice on Pliocene Sand, Reinden Wood '62.
 10) Westerham Wood 82! Brasted Chart 82!
 11) Fairbourne Lane, Harriesham, BD.
 12) Hothfield Common, 1957, E.G.P., **MNE**.
 13) Southborough Common HNC. Pembury Woods, 1952 **MNE**. Combwell Wood 1979.

(Corynephorus canescens (L.) [P.] Beauv.¹⁷⁵

This was reported in Kent by L'Obel in 1655, and by GES in C.P.S.K., but the evidence is slender and unconfirmed, though it could well have existed on the Sandwich dunes. It is not uncommon on the fixed dunes in Pas de Calais: in Britain it is probably only native on the Norfolk and Suffolk coast, and formerly occurred in Breckland.

Aira L.¹⁷⁶

A. caryophyllea L. 15, 16

Native. Dry open grassland or disturbed ground on sand or gravel, usually on leached soil: widespread, but not common generally.

- 1) Chislehurst Common. Keston Common, A.G.D., 1906 **MNE**. Hayes Common, 1946, **MNE**. Dartford Heath 1946. Farningham Wood, 1946.
 2) On Bagshot Sand, E of Minster, 1954 **MNE**.
 4) Deal Links. Richborough Port, '55, PCH. St Georges Links, Sandwich (Sand) 1946, W.J.L.S.
 6) **E**) Lane End Common, Darenth, **MNE**. Darenth Wood, on Bl[ackheath] Beds. Mounts Wood, on Bl[ackheath] Beds **MNE**. Heath by Windmill, Shorne, on Bl[ackheath] Beds.
 8) On Pliocene Sand in old pits, above Wye Crown, 1954, F.H.P. West Wood, on Pliocene, B.N.
 11) Wrotham Heath, 1945 **MNE**. Ryarsh Sandpits 1944, 1945 **MNE**. Ride, Oaken Wood, E. Malling. Eythorne Street, Hollingbourne, 1960, EGP.
 12) Hothfield Common, 1950 **MNE**.
 13) Wood N. of Penshurst, 1945 **MNE**. Pitts Gate, Lamberhurst, 1943, JRW. Pembury Walks, 1957, CAS. Bedgebury Pinetum, 1954. Angley Wood 1955 **MNE**. Bayham Abbey CAS.
 14) R[ai]l[wa]y bank NE of Sta[tion], Tenterden, 1959 **MNE**.
 15) Denge Beach, J. Hubbard.
 16) Kiln Heath, Sandling, LJM.

A. praecox L.

15, 16

Early Hair Grass

Native. Dry open grassland, usually on leached soils: common in suitable places.

- 1) Chislehurst Common 1945. Hayes Common 1946 PCH. Joydens Wood, PCH. Heath SW of Joydens Wood 1947 **MNE**. Bexleyheath GMB. Wynn's Common, Plumstead, LRG, 1934 **MNE**. Heath Abbey Wood, GAM. Ruxley pits, S&S. 55 Heath on W border of Farningham Wood, 1946; PCH. 57 Dartford Heath. 56 Hollows Wood, NW of Shoreham, 1945.
 3) 05 Grass heath S. of Dunkirk **MNE**. 15 Trenley Park Wood, 1946. (Fordwich JG.)

¹⁷⁵ Follows *Aira* in the manuscript.

¹⁷⁶ Follows *Deschampsia* in the manuscript, and begins with *A. praecox*.

- 4) 35 Fixed Dunes E. of Downs Fm, Sandwich, 1962. 34 Fixed Shingle S. of Walmer Castle, BN, 1959. 35 Deal Links.
- 6) E) Swanscombe Wood PCH. Green Street Green. Randall Wood, Shorne. Grass Heath by Windmill, Shorne. By A2, N. of Cobham Park, 1945 **MNE**. Top Holly Hill 668628 (Black[heath] Beds), 62. Fawkham St[at]io[n] 602688, DVS Woods. Longfield Hill 622674 DVS Woods.
- 7) Heath, Danaway, Newington, 1957, **MNE**.
- 10) Sandpit E. of R[ai]l[wa]y, Riverhead, CAS.
- 11) Wrotham Heath, 1944, **MNE**. By A.20 W. of Hollingbourne 1954 **MNE**. R[ai]l[wa]y bank, Hildenborough 563482, CAS. Ryarsh Roughetts 1945 **MNE**. Warren Wood, Leeds 1945 **MNE**. On sandy path, Birch Wood, Bethersden, 915405, 62.
- 12) Hothfield Common, 1945→ **MNE**, 1963, EGP. Mersham Park, F.R. & E.S., 1960 **MNE**.
- 13) By Luke Rd, T[unbridge] Wells Common, 1944 FR **MNE**; 1961, CAS. Southborough Common, HNC. Langton Green, 1944 **MNE**. Angley Wood 1955 **MNE**. Lodge Wall, Scotney Castle, 1961 **MNE**.
- 14) Glade on T[unbridge] W[ells] S[and], Moor Wood, Benenden '62.
- 15) Fixed dunes, Romney Warren, 1962, by A259. Hythe Beach. Dungeness.
- 16) Folkestone Lees. Shorncliffe, 1955 **MNE**.

Anthoxanthum L.

A. odoratum L.

[Sweet Vernal-grass]

- 1) Blackheath GMB. Eltham Common 1934 LRA **MNE**. Ruxley pits, S.&S. Farningham Wood, PCH. 82.
- 3) 110650, Grassland on clay, Duncan Down, Whitstable, 1961, H.M.W. Bysing Wood HMW. Shelving Wood Hoath (Oldhaven Beds) '62.
- 4) Sandwich Bay.
- 5) Chevening Park PCH.
- 6) Darenth Wood, PCH. Lords Wood, Darenth PCH. Green Street Green. Preston Hill, PCH.
- 6E) Randall Wood, Shorne (Thanet S[and]) 1953 **MNE**.
- 7) Squirrels Wood '45. Coxett Wood (Than[et] S[an]d) '62. FilmerWood (valley bot[tom] sandy loam) '62. Tassels W[oo]d Norton (loam) '62.
- 8) N. Stelling Minnis Grass Heath '62. Reinden Wood Pliocene loam '62.
- 10) Bradbourne Meads FSEF. Knole Park PCH.
- 11) Wrotham Heath. Roughetts Ryarsh 55. Leybourne Wood 55. Larkfield H[ea]th. E. Malling 1943 **MNE**. Pendenden Heath 1944 **MNE**. Oaken Wood Barming 1954 **MNE**. Maidstone EGP 1957 **MNE**.
- 12) Hothfield Common. Ashford Warren.
- 13) Wood NE of Cobhambury '55. Combwell Wood 1979. SW of Leigh '55. Stone Cross, Ashurst, 523388→ CAS '59. Southborough Common, HNC. Bayham Abbey CAS. Bedgebury Pinetum '55.
- 14) Knock Wood, E of Tenterden by B.2007, '62.
- 15) Dungeness Beach nr Lighthouse 55. Beach to N '62 - l[ocally] d[ominant]. Beach to W'57 - l[ocally] d[ominant]. SE of Boulderwall Dungeness 62 - l[ocally] d[ominant].

Phalaris L.

P. arundinacea L.

[Reed Canary-grass]

- 1) Holwood Park. Crofton Heath, by stream, PCH. Ruxley pits, S.&S. R. Cray, N. Cray PCH. Ponds, Beckenham, 1955, J.M. Sherwood. 37 Beckenham Place, PCH. 36 Near Hayes Sta[tion], PCH.
- 2) Sewer Bank, Plumstead, PCH. Plumstead Marshes. Northfleet, Ebbsfleet Channel. 66 Birling Marshes PCH.
- 3) Oare Meadow HMW. Near Waystreet Fm Hernhill HMW,
- 4) Wingham. Ham. Hacklinge. Minster Marshes, 1963. Sandwich Bay.
- 6) Swanscombe Wood, in marshy cutting PCH.
- 8) Dour head Chilton KDR. Bridge, Nail Bourne, JG.
- 10) Bradbourne Meads, Riverhead, 1944 **MNE**. R[iver] bank below Shoreham PCH. R[iver] bank Eynsford, PCH. R[iver] above S. Darenth, PCH. R[iver] St John Jerusalem PCH. Darenth, 1944 **MNE**.
- 11) Mote Park, 1958, EGP **MNE**. R[iver] W of Tonbridge. River ½ mW of Penshurst 1953→ **MNE**. Ditch 676493 Hale St[reet] CAS. Ditch Leighbridge 814454 '62. Ditch E of Golden Sq[uare] 887413 '62. Pond E of Headcorn 849137 '62. Beult E of Buckhall 918398 '62. Beult S. of Headcorn Ch[urch] 831440 '62. By Beult, Buckmans Green 889419 '62. ...Fm, Pluckley, V.F.P.D.

12) Stour: Wye, Ashford, E of G[rea]t Chart, NW of G[rea]t Chart, SW of Hothfield. Willesboro[ugh] Br[idge]. Stour S. of Sevington. Stour S. of Mersham. Withersdale.¹⁷⁷ Wye Brickworks. Kennington B[rick]works. NE of Bybrook. Kingsnorth Mill. Brisley Fm W. of K[ings]north. Chilmington. R[ai]l[wa]y Marshes SE of K[ings]north. Rowling Street Ruckinge. Broad oak Mersham, SE of.

13) Bayham Lakes, CAS.

15) E of Ham St[reet]. R[oyal] M[ilitary] C[ana] S of Ham St[reet]. Shirley Moor. Dungeness gravel workings, J. Harper. Romney Warren Pond, 1945 **MNE**.

16) L[owe]r Sandgate Rd, Folkestone VFPD.

var. picta

8) Coldred Pond.

11) Bourne Fm, Plaxtol, 1960, DMcC.

13) Toad Rock Tavern, Bishopsdown, KEB.

†P. canariensis L.

1) N. Cray tip, PCH. Pokeridden Wood, Swain. Hayes Gravel pit 1915 AED **MNE**. Eltham Common by Police Sta[tion] 1934 LRA **MNE**.

2) Conyer KDR.

3) Dargate, Denstroke Rd, HMW.

4) Worth, DACL.

6) Cotton Lane, Stone, tip side, 563746, 1961, HMP. Longfield tip DMcC **MNE**. A.2 verge E of Darenth Wood 583730, H.M.P.

7) near Westwell, EGP 1958 **MNE**. Kennaways, Mrs W. Verschoyle.

9) North Foreland, L.W.W., 1949! **MNE**.

10) Sevenoaks tip DMcC.

11) E. Malling '53 MNE, 57. Vintners Quarry 1956 LRA **MNE**. Edenbridge Tip DPY. Runham sandpit Mrs B Dodds.

12) Canterbury Station MEM. Chylmington tip ES.

13) High Rocks La[ne], T[unbridge] Wells, CAS, 1959. Cranbrook DS. Garden, Southborough HNC.

14) Woodchurch Green RAC.

16) Folkestone Brickfields DMcC.

†P. minor Retz.

Shoddy alien:

4) Ash: Sandwich, 1960, DMcC.

†P. paradoxa L.

Shoddy alien:

1) Green St[reet] Green, 1938 DMcC.

4) Sandwich.

9) Birchington; 1960, DMcC.

†P. brachystachys Link.

1) Green Street Green, J.P.M.B., *BEC Rep.* 1939-40, p.302.

Agrostis L.¹⁷⁸

A. capillaris L.¹⁷⁹ [Common Bent]

1) Crofton Heath, PCH. N. Cray Wood, PCH. Joydens Wood, PCH. Shooters Hill GMB. Keston Common. Hayes Common. Dartford Heath. Ruxley Pits, S&S. Blackheath GMB. Plumstead c.1934 LRA **MNE**. Woolwich Common 1934 LRA **MNE**. Chislehurst Common. Pickhurst Mead, PCH. Farningham Wood '82.

3) Clayhill Wood '55. Blean Wood N of Dunkirk '5. Canterbury golf course '55. Shelving Wood Hoath '62. Field to W. of Shelving Wood.

6) 668628, Holly Hill (B. Bels) 62. Darenth Wood, H.M.P.

¹⁷⁷ Sic, =Withersdane?

¹⁷⁸ Follows *Calamagrostis* in the manuscript and gives species in sequence: *A. curtisii*, *canina*, *vinealis*, *capillaris*, *gigantea*, *stolonifera*, *avenacea*

¹⁷⁹ Given as *A. tenuis* Sibth.

- 8) Grass heath, N end Stelling Minnis, '62. West Wood, Stowting, 1959 **MNE**.
 10) Sandpit by r[ai][wa]y E. of Riverhead CAS. Bat and Ball tip CAS.
 11) Wrotham Heath **MNE**. Roughetts Common Ryarsh 55. Oaken W[oo]d Rd, Barming '55. Park Wood Boughton ...'55.
 12) Ashford Warren **MNE**. Hothfield Common, 1903, HL to 1963! **MNE**.
 13) Timberlog Wood, 1939 JRW / Shoemith Wood 1939 JRW / Gibbs Fm 1939 JRW: awned forms. All Lamberhurst. Southborough Common HNC. N end Penshurst P[ar]k 55. South Park Pastures Penshurst '62.
 14) Knochheath, Tenterden, 1956 **MNE**. T[unbridge] W[ells] S[and], Moor Wood, Benenden '62. On Ash[down] S[and], Knock Wood Tenterden 62. Ash[down] S[and], College Wood, Wittersham 62.
 15) Blackwall Farm, Dungeness, 1956 **MNE**.

A. gigantea Roth.

- 1) Bexley ch[urch] y[ar]d PCH. Lewisham, Mrs. Teagle, det. E.B.Ba. Gravel pit, Hayes, 1915 AED **MNE**. Woolwich 1934, LLAG **MNE**. Ruxley Pits, S&S.
 2) Dartford 1898 H.L. **MNE**. Tonge, DMCC. Snodland, 1898 H.L. **MNE**.
 5) Arable, Blackmans, 397684, PCH.
 6) Greenhithe Waste Ground, H.M.P.
 7) 95 Field below Timbolds Hill, Wichling, 1959 **MNE**. 95 Eastling, C.T. 86 Field, Guildsted, Stockbury, 960 **MNE**.
 8) Field N. of Winchcomb Fm. 04 Godmersham, 1960 **MNE**. 25 Arable S of Fredville, DMCC. 25 Chalky arable, Woolage Village, BN. 35 Track, Willow Wood, Tilmanstone, B.N.
 10) Sandpit by R[ai][wa]y, E of Riverhead, CAS.
 11) Holt Wood, Aylesford, 1946 **MNE**. E. Malling, 1958 **MNE**. Sandpit Aylesford, 1957, E.G.P., **MNE**. Brickworks, Pluckley, 1949 **MNE**.
 12) Ashford Warren Woods, 1955 **MNE**.

A. stolonifera L.

[Creeping Bent]

- 1) Blackheath GMB. Shooters Hill GMB. Ruxley Pits, GMB.
 2) Woolwich Arsenal PCH. Waste G[roun]d, Crossness PCH. Chetney Marshes, g[ras]sl[an]d Dike banks, Creek shores. Higham Marshes. Cliffe Marshes. Cuxton '43 **MNE**. L[owe]r Stoke **MNE**. Stoke Junction Halt **MNE**. W of Seasalter H.M.W. '58 **MNE**. Luddenham Marshes HMW.
 9) Past[ure] S. of Highstead, Hoath, '62.
 4) Sandwich Bay. Marshside, Chislet 225661, '62. Dike N. of Stuart 270686, 62. Bank Stuart 271690, 62. Salting edge Stuart 266692, 62.
 5) A.20 NW of Farningham PCH. Chevening Park PCH.
 6) Horns Cross pit 1962. By Str[eam] L[owe]r Halstow 857669, '62.
 8) I[ocally] a[bundant] foot of Westwell Hanger '62. Swingfield Garden Wood PWW. Brook Hillock 62. Cornfield Wolverton 62. Clavertyes Wood, Elham, 1956 **MNE**. Down 1m NE St Margarets 62.
 9) East Wear Bay 1947 **MNE**. Lydden Spout 1955 **MNE**. Abbots Cliff 1956 **MNE**.
 10) Sandpit E of R[ai][wa]y, Riverhead, CAS. Bat and Ball tip CAS.
 11) Sandling Wood, 1957, EGP **MNE**. W. Malling, near Airfield, 1960 **MNE**. Yalding, EGP, 1957 **MNE**. Track E of Headcorn 849437, '62. Leighbridge Pond Headcorn 813454, '62.
 13) Trodden area near Lamberhurst Ch[urch], 1942, JRW: Ditch S. of Ch[urch], CAS, 684365. T[unbridge] Wells Common, E. Shorrocks.
 15) Lydd Airport DMCC.

A. avenacea J.F. Gmel.

[Shoddy alien.](#)

- 4) Sandwich 1959 **MNE**. 11) Comp, 1960 **MNE**: both D.McC.

(A. curtisii Kerguelen¹⁸⁰

A. canina L.¹⁸¹

- 1) Keston Common, 1946. Joydens Wood, PCH.

¹⁸⁰ Given as *A. setacea* Curt. without any entry; it is not a Kent plant.

¹⁸¹ Given as subsp. *canina* and distinguished from subsp. *montana* (now *A. vinealis*).

3) Church Wood Blean, SE part, RGW.

10) Fawke Common 1954 **MNE**. Westerham Wood '82.

11) S of Wrotham Heath, 1946 **MNE**. Oaken Wood, NE of the North Pole Inn 1958 **MNE**. Sandway Bog, Lenham 1954 **MNE**.

12) Hoads Wood 1946 **MNE**. 915405 Birch Wood, W of Bethersden, on sandy loam, 1962. Park Wood, Bonnington, 1950. Hothfield Common. Willesborough Lees 1955 **MNE**.

13) Redleaf Wood, W. of Penshurst 1950 **MNE**. Hawkenbury Bog.¹⁸² South Park, Penshurst (T[unbridge] W[ells] S[and]) '62. Pinetum /Louisa Lake, Bedgebury Forest. Kilndown Wood 1946→ **MNE**. Southborough Common HNC. Combwell Wood 1979. Bayham Woods, JRW. NE of Kippings Cross. Bayham Abbey CAS. AngleyWood 1946- 1957 **MNE**. Wood SW of Folly Hill, Colliers Green, 62. Wood 1m S. of Biddenden 1954 **MNE**. Rogers Wood SW of Biddenden 1954 **MNE**. Chiddingstone Hoath. Free Heath, JRW (unawned). Chittenden Wood! JRW: 1954 **MNE** (var. **varians** Asch & Graebn.). N of Bayham Abbey JRW, 1941 (var. **fascicularis** (Curt.) Sinclair). Sissinghurst Park Wood 1979.

14) Farnell Wood, SW of Rolvenden (T[unbridge] W[ells] S[and]) '62. College Wood, Wittersham (Ash[down] S[and]) '62. Standen Wood, Benenden, 1960 **MNE**.

16) Ride, Kiln Wood, Sandling Park (F[olkestone] Sand) 1958 **MNE**.

A. vinealis Schreb.¹⁸³

1) Keston Common.

12) Hothfield Common.

Agrostis x Polypogon = X Agropogon P. Fourn.

A. stolonifera x P. monspeliensis = X Agropogon littoralis (Sm.) C.E. Hubbard

[Plumstead Marshes, by Practice Butts, 1845, 1846, 1850, **MNE**. Extinct here now.]

2) All Hallows, J.E.L. Brackish dikes E. of Stoke Junction Halt. 1949 **MNE**. Brackish dikes S. of Village, Grain. 1947, 1949, W. of Fort **MNE**. Near Grain Crossing Halt, Grain, 1946.

Calamagrostis Adans.

Native. Roadside ditches, woodborders, etc., on heavy moist soils; also in old quarries: rather rare, but widespread. Rare in Surrey and Sussex, commoner in Essex; v[ery] common in Pas de Calais, even on the dunes. 10 localities 9/51.¹⁸⁴

1) 46 Roadside Ditch, Hayes Common, D.McC; 1946-62! **MNE**.

3) 16 Roadside on clay, A.291, E. of West Blean Wood, 1946 **MNE**.

6) 57 Horns Cross Chalk pit, 1964, Mrs AG Side. 77 Damp floor of chalk pit, SW of Cliffe, 1963.

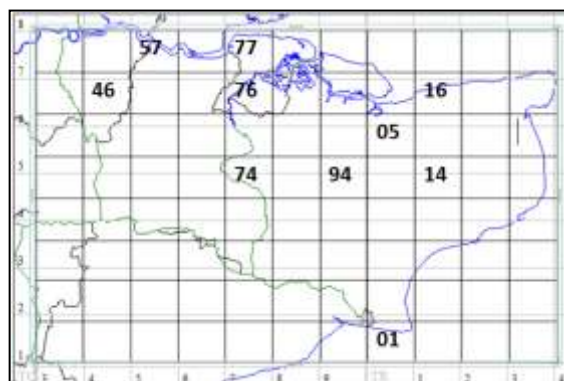
6) E) 77 edge of Chattenden Wood, Lodge Hill, 1954 **MNE**.

7) 76 Edge of flooded clay pit, Burham, 1955, P.C.H. **MNE**. 05 Valley on loam over chalk, Kings Wood E. of Molash, 1956; to S., E. Scott, 1961. Highsted pits, Tunstall, 1958, DMcC.

8) 14 Border of West Wood, Stowting, W. of Gate Fm, on Pliocene loam, 1956, Miss DAC Long 1958 **MNE** (1956!). Near Winterage Wood Acrise DACL.

11) 74 Wood SW of Staplehurst, J.P.M. Brennan. 94 Wood near Pluckley, JE Chambers, comm. C.E.S., *J.Bot*, 1924, p307: prob=) Wood 1m W. of Rippers Cross, 949439, Hothfield, E. Scott, 1953 **MNE** (1954!): 1962, C.A. Stace.

15) 01 Damp ground, old shingle workings E. of Old School, Dungeness, 1956, Miss DACL: 1961! **MNE**.



C. canescens (F.H. Wigg.) Roth¹⁸⁵

15

1/51

¹⁸² In vc14, East Sussex.

¹⁸³ Given as *A. canina* subsp. *montana* (Hartm.) Hartm.

¹⁸⁴ Contradicted by the total above of 10/52.

¹⁸⁵ Cited as (Weber) Roth.

Native. Swamps; extremely rare, and now apparently confined to one locality. Very rare in Sussex and Essex; rare in Pas de Calais. Commoner in Suffolk and Norfolk, unrecorded in Surrey.

Reported at 1) Charlton, FIK; and Walmer see FIK: (probably errors).

11) Pond W. of London Beach, N. of Tenterden, 1959, E. Scott: 1959!

12) Swamp below Lit[tle] Hoddiford, Sellindge, FGEK].

16) Woods near Hythe, Ann Pratt.]

(*Ammophila arenaria* x *Calamagrostis epigejos* = *X Calammophila baltica* (Flüggê ex Schrad.) Brand¹⁸⁶ occurs on the dunes at Ambleteuse, Pas de Calais (C. Stace, 1959, det. C. Melderis 1962). In Britain it occurs in Norfolk, Suffolk and Northumberland; it may appear on the Kent coast.)

Ammophila Host¹⁸⁷

A. arenaria (L.) Link 15, 16 Marram Grass 7/51

Native. Sand dunes and sandy beaches: very local but locally abundant in all suitable habitats: the chief agent in sand-dune building in Britain. Unrecorded in Surrey. Very local in a few places in Sussex and in Essex, abundant on the extensive dunes of Pas de Calais and Somme.

2) 87 Grain S. Beach, 1946-59 **MNE**. N. Beach, 1945; gone, 1959, **MNE**. Beach opp[osite] "Rose in Bloom" Seasalter, 1959, HMW, 098657 and to W. 06 Shell sand beach, Shellness, Sheppey, l[ocally] d[ominant]. 07 Beach N. of Leysdown, 1918 AGD **MNE** 1945!

4) 35 Abundant, to dominant on white dunes, Deal Links to Shellness, 1946-62 **MNE**. 36 Beach, Pegwell Bay, 1946. Old Fixed Dunes E of Downs Fm '62.

9) 36 Cliffsend, Pegwell, 1946.

15) 02 Lydd on Sea, a small patch, 1946. 02 Lydd Common, on ancient dunes 2 miles inland, 1946-62, **MNE**. 02 Greatstone Dunes, l[ocally] d[ominant], 1946-60 **MNE**. Romney Warren, abundant near sea wall, and rarer inland, 1946 **MNE**. 01 W of Dungeness, 1957, E.G.P. **MNE**.

Gastridium [P.] Beauv.¹⁸⁸

G. ventricosum (Gouan) Schinz & Thell.

6E) Ride on clay, G[rea]t Chattenden Wood, Cliffe, 1954, **MNE**. [Swanscombe Wood, C.C. Babington (**CGE**).]

†**Lagurus** L.

†**L. ovatus** L.

Escape in waste places 51/58-36; 52-54; 56;68; 54-74. Normandy, Brittany, S[use]x, S. Hants, Channel Is[lands] – native, Dawlish Warren. Could be an old native, or more likely is extending its range with walmer climate on this side of the Channel.

4) Sandwich Bay, nat[uralise]d and abund[ant] 61/34-60, 1985-92.

6) Longfield tip, DMCC.

11) Ditton, 1933, FF.

Apera Adans.

A. spica-venti (L.) [P.] Beauv.

(vc15)* Top. Bot. Suppl.1.

1) Plum lane Brickfield, Elmstead, AHWD, 1893 **MNE**. Green Street Green (casual) J.P.M.B. Marlborough La[ne], Shooters Hill, G.M.B.

7) Upper Bell, .F.F.

8) Arable field, at Lydden, 1964, Miss D. Moore.

Polypogon Desf.

P. monspeliensis (L.) Desf. 15, 16 2/51 Annual Beard-Grass

Native. Brackish marshes, and alluvial dikes, usually on mud drying out in late summer; very rare, but locally plentiful. It also occurs as a shoddy casual. In Sussex, very rare in extreme west only: unknown in Surrey: very rare in Essex. Only as an adventives in Nord: not in Pas de Calais.

¹⁸⁶ Given as *Ammocalamagrostis baltica* (Schrad.) P. Fourn., and following *Ammophila*.

¹⁸⁷ Placed between *Aira* and *Calamagrostis* in the manuscript.

¹⁸⁸ Follows *Polypogon* in manuscript.

[Woolwich, F. Barham, 1846 **MNE**: =Plumstead Marshes, 1850 **MNE**.] [~~57~~ Stone Marshes, 1930, G.C. Pownall.]
2) Open muddy parts of brackish *Phragmites* swamp, N. of Stoke Junction Halt, abund[ant], J.E.L. 1945-61! **MNE**. Brackish dikes S. of village, Grain. Dikes E. of Stoke Junction Halt **MNE** 1945-61. Dikes near Grain Crossing Halt, 1945 **MNE**. ± dry Salting behind S. beach, Grain **MNE**. Brackish marsh E. of Binney Farm, All Hallows, 1954, J.E.L.: 1954! **MNE**. Brackish marsh behind beach, N.W. of Leysdown, 1948-1958-1962, C.A. Lister **MNE**-1963!
 [77 Siding, Sharnel Street, with shoddy aliens, PCH]
4) [~~36~~ Dikes, alluvial flats, N.E. of Sandwich, Fl. K.]
 [As a shoddy casual alien at:
4) Sandwich: **11)** Comp and Wrotham, all 1960, D.McC. **MNE**].

Alopecurus L.¹⁸⁹

A. pratensis L. [Meadow Foxtail]

- 1)** Blackheath GMB. Shooters Hill, GMB. Chislehurst Common. Ruxley pits, S&S.
- 2)** Meadows W. of Upnor, 1945-1960 **MNE**. Sheerness Canal, OD.
- 4)** Wenderton Meadows, BN. Mead[ow]s, ½ m N. of Wingham.
- 5)** Meadow 396611 PCH.
- 7)** Upper Bell '55.
- 10)** Bradbourne Meads FSEF.
- 11)** R[oa]d S. of Bough Beech '55. Tonbridge Castle 55. Hildenborough R[ai]l[wa]y bank 563482, CAS. 849437 grassy track 1m E of Headcorn '62. 88419 by Beult N of Buckmans Green '62.
- 13)** Meadow by Teise S. of Lamberhurst Ch[urch], 684365, CAS. Southborough, HNC (common).
- 14)** Meadow W. of Pigeon Hoo, E of Tenterden '62.
- 15)** Dungeness near Bird Obs[ervatory], J. Harper.

A. geniculatus L. [Marsh Foxtail]

- 1)** Beckenham Place, PCH. Chislehurst Common **MNE**. Keston Common. Woolwich Common 1934 Lrag **MNE**. Sparrowfields, Swain. Old r[oa]d cutting, on clay, W. Wickham, 1955 JM Shorrocks.
- 2)** Wet field, Crossness, PCH. Meadows SW of Upnor 1960 **MNE**. NW part Elmley I[sle], 1954 **MNE**. Brackish Creek, Chetney Marshes, 1962. Luddenham Marshes, 1961, H.M. Wilks. Below Oare Mill Pond 1959 **MNE**. Pasture by Pit, N of Shorne, 694735 PCH.
- 3)** Pond by Church, Blean, 1945.
- 4)** 26 Stodmarsh 1955 **MNE**. 26 Levels N. of Paramour Street, Ash, 1956 **MNE** det. A. Melderis. 26 Minnis Bay, Miss T. Webber. 25 Wenderton Meadows, Wingham, BN.
- 6)** Pond, Cobham, 1945.
- 8)** Pond NE of West Wood Stowting 1956 **MNE**.
- 10)** Otford 1904 H Elgar **MNE**. Bradbourne Pits FSEF. N of Shoreham 1954 **MNE**. Westerham Wood, 82.
- 11)** Goddington, Harrietsham, Mrs B. Dodds. Aylesford gravel pits 1958 EGP **MNE**. Ham Hill Boxley 1943 **MNE**. Near Teston lock H.L. 1897 **MNE**. Meadows Edenbridge DPY. Pond E of Hale Street 1956 **MNE**. 94 Pond, Lovelace Fm, Bethersden, 921402, ES.
- 13)** 63 Ditch by Teise S. of Lamberhurst Ch[urch] 684365, CAS. 54 Pentecosts field Southborough HNC.
- 15)** 82 Sandhurst Levels 1954 **MNE**. 83 Windmill Channel SE of Rolvenden 1959 **MNE**. 93 Shirley Moor ES. 01 01 Dungeness KDR. 02 Canal St Marys Bay LJM. 13 Willow Tree Fm, Burmarsh Rd, LJM.

A. geniculatus x pratensis = A. x brachystylus Peterm.¹⁹⁰

A. bulbosus Gouan Bulbous Foxtail

Native. Brackish meadows: extremely rare, and only seen in recent years¹⁹¹ at Frindsbury. Very rare in Sussex and Essex.

- 2)** Brackish alluvial meadows between Frindsbury and Upnor, abundant, JHL. & FR., 1944 to 1960! **MNE**. Below Gravesend, C.P.Hurst, 1890 **MNE** probably equals: Higham Marshes near Kralite, J.B. Marshall 1938. Seasalter Marshes, abundant, H.M.W., 1965.

¹⁸⁹ Placed after *Phleum* in the manuscript, and with species in order *A. myosuroides*, *pratensis*, *geniculatus*, *x hybridus*, *aequalis*, *bulbosus*.

¹⁹⁰ Cited as *A. x hybridus* Wimm. No records given.

¹⁹¹ 'Recent years' will have been before 1985, possibly well before. It since transpires that, although rare, the grass is more widespread than this.

A. aequalis Sobol.

- 1) Hayes Common. W.C.R.W.
- 2) Harty, R.D. English.
- 6) Thong, in Pond, 1956, P.C.H. det. A. Melderis.
- 11) Pond in NW part of Ryarsh Wood, 1944 **MNE**.
- 12) Dried up pond, Willesborough, C.N.P., 1946. The Moat, Sevington, C.N.P., 1946. Mersham-le-Hatch, Miss E. Davies, 1960 **MNE**. Gibbons Brook, Sellindge, 116386, 1958, L.J. Margetts **MNE**.
- 13) Finchcocks Road, J. Stirling TLS.

A. myosuroides Huds.

- 1) Ravensbourne, Bromley 1912 AED, **MNE**. Near Chelsfield Station 1946 **MNE**.
- 2) Arable, Scocles Fm, Minster in Sheppey, 1958.
- 3) Corn Fields E of Seasalter Church, 0964 0965, H.M.W.
- 4) Chislet Marshes MEM. Beet field, Ebbsfleet, MEM.
- 5) Chelsfield, 1945. 426577 W. of Ebbsfleet, MEM.
- 6) Near Ash Ch[urch], DVS Woods 603645.
- 8) St. Radigunds, K.D.R.
- 10) Arable N of Westerham, 1958 RAC.
- 11) East Malling, JHL. [Maidstone, 1903 HL **MNE**.] Watringbury, 1942 **MNE**. Platt, 1949, DMcC. Field E of Edenbridge 1950 **MNE**. Edenbridge tip DPY. S. of Cheveney Bridge, SW of Marden, 1956 **MNE**.
- 12) Arable, Hinxhill, 1956 **MNE**. Arable, New Street Fm, G[rea]t Chart 972407, 1952, DMcC & CNP.
- 13) Southborough Garden HNC.
- 14) Arable, Wittersham 1956 **MNE**.

Phleum L.¹⁹²**P. pratense** L.

- 1) Beckenham (Elmers End) 1915 AED **MNE**. 36 Near Hayes Sta[tion] PCH. Eltham Common 1934 Lrag **MNE**. Ruxley pits, S&S. Past[ure] by R. Cray, N. Cray PCH.
- 2) Woolwich Arsenal PCH. Meadow near Fort grain, AGS.
- 3) Hernhill 1955 **MNE**.
- 6) Mounts Rd, PCH. Romney St[reet] PCH. Kemsing Downs PCH. Field above Trosley.
- 8) 24 R[oa]dside, Hawkige BN.
- 10) By R[iver] above S Darenth, PCH. St J[ohns] Jerusalem, PCH.
- 11) Sandling Wood 1957 EGP **MNE**.
- 12) Hinxhill, 1956, **MNE**.
- 13) Meadow by Teise S. of Ch[urch] Lamberhurst 684365 CAS. Hawkenbury 592888, E. Shorrocks. Bayham Abbey CA.
- 14) 50 acre Wood Woodch[urch] ES.
- 15) Shirley Moor ES.

P. bertolonii DC., **P. nodosum** auct.

- 1) Chiselhurst Common. Hayes Common. Dartford Heath. Blackheath GMB. Woolwich 1934 Lrag **MNE**. Pickhurst Mead PCH. Shooters Hill GMB. Ruxley pits S&S. Farningham Wood 82. Crofton Heath, PCH.
- 2) Woolwich arsenal, PCH. Grain, PCH. All Hallows 1945 **MNE**. Aluvial pasture, Chetney Marshes '62.
- 3) Barley Feld W of Shelving Wood Hoath '62
- 4) Deal Links 1954 **MNE**. Sandwich Bay dunes 1963. Track bank N. of Shuart, St Nicholas 271690, '62.
- 5) Pilgrim's Way, Polhill PCH.
- 6) Darenth Wood HMP. Downs E of Shoreham PCH. Kemsing Downs PCH. Trottiscliffe Downs 1945 **MNE**.
- 7) Burham Downs '57 EGP **MNE**. Bluebell Hill '57 EGP **MNE**. Above Lower Bell 1951 Lrag **MNE**. Down above W[ater] Works, Boxley '62. Boarley Warren.
- 8) 137508 Down SE Petham MEM. Brook Hillock (ley) '62. Copp[ice] Wood W. of Podlinge 62. Wolverton Wood borders '62. Track 1/2m NE of St Margarets '62.
- 10) Horton Kirby PCH.

¹⁹² Follows *Lagurus*, and gives species in order *P. bertolonii*, *pratense*, *phleiodes*, *arenarium*.

11) Meadows W. of Penshurst, 1953, **MNE**. By Pond E of Hale St[reet] CAS. 1m E of Headcorn 849437, in green lane '62. Pasture Field SE of Buckhall, Bethersden, '62.

13) South Park pasture, Penshurst '62. Meadow by Teise S. of Ch[urch], Lamberhurst, CAS. Southborough HNC.

15) Dungeness, 1945 **MNE**.

(**P. phleoides** (L.) [H.] Karst.

It occurred formerly in Essex; plentiful in Suffolk Breckland! In Somme! but now extinct in Pas de Calais.)

P. arenarium L. 15 4/51 Sand Cat's tail grass

Native. On sanddunes, particularly on loosersand; rare, but very locally abundant in 2), 4) and 15).

2) Shell sand beach, Shellness, Sheppey, 1945-62 **MNE**. 06 Seasalter Beach, 1951 **MNE**.

4) Deal Links 1954 **MNE**. Sandwich Bay to Shellness, abund[ant] on loose sand, rarer on fixed dune sand, 1945-63 **MNE**, 1996.

15) Near RomneyWarren, MNE, '45-'62. Littlestone Beach. Greatstone dunes **MNE**.

....

Bromus L.¹⁹³

†**B. arvensis** L.

A casual: many old records for 1) and 2), 3), 6), 7), 8), 9), 10) and 13: (see Fl.K.) none recent.

13) Meadow, Scotney Castle, JS (TLS).

B. commutatus Schrad., *B. pratensis* Erh. ex Hoffm. non Lam. [Meadow Brome]

2) Stone Marshes, 1945 **MNE**. AllHallows, 1946 **MNE**. Tonge, DMCC. Seasalter, 1959 **MNE**.

3) Herne Bay, 1868, N.T. **BM**.

4) W of Minnis Bay.

6E) N. of Chattenden Wood, Cliffe, 1954, **MNE**.

13) Ditch near Skiffs Cottages, Lamberhurst, 1940, JRW.

B. racemosus L. [Smooth Brome]

*Top Bot Suppl.1.

1) Bexley, EMH.

2) Meadow, New Hythe 1947 **MNE**.

4) Hacklinge Fen, 1946 **MNE**. Deal Links, 1954 **MNE**.

11) Meadow, The Brooks, Fairbourne Mill, Harrietsham, 1962, Mrs. B. Dodds (sp!). W. of Edenbridge, 1947-1950 **MNE**. W of Penshurst, 1953 **MNE**.

12) Stowting Meadows, 1947 **MNE**: 1954 **MNE**. Meadow, Stubbs Cross, Kingsnorth, 1952 DMCC **MNE**. Meadow E of Gibbons Brook 1954 **MNE**. By Birchett Wood, 992358, 1952, D.McC. Cuckolds coomb, Brooke 1954 **MNE**. S of Brabourne Church. E of Cadmans Wood.

13) Lamberhurst on Roadside, 1943, J.R.W. Bedgebury, 1952, **MNE**.

14) Wittersham in hedges, Col. R. Meinertzhagen, **BM**.

15) Maytham Wharf, Wittersham, 1958 **MNE**. Sandhurst Levels, 1954 **MNE**.

B. hordeaceus L. subsp. **hordeaceus**¹⁹⁴

1) Blackheath, GMB. Woolwich Common, 1934, Lrag. Ruxley pits. N. Cray tip PCH. Farningham Wood 82!

2) R[ai]l[wa]y bank Cuxton 1945 **MNE**. Burham Marshes **MNE**. Shornmead Fort 1945 **MNE**. Shorne Marshes, 1946 **MNE**. Grain, 1947 **MNE**. E of Minster Sheppey, 1954, on Bagshot Sand **MNE**. Shellness. Tonge, DMCC, 1958 **MNE**. Oare Road, Faversham. 1946 **MNE**. R[oa]dside, SE of Chetney Cottages, 1960.

4) Meadows, Hacklinge 1946 **MNE**.

5) 3964 Well Wood PCH.

6) (var. *glabrata*) Eynsford, 1893, ESM **BM**. Above Trottiscliffe in field, 1945 **MNE**.

¹⁹³ The treatment of *Bromus* as a broad family under the one name, but covering what was separated as *Anisantha* in the first edition of Clapham, Tutin & Warburg's *Flora of the British Isles* (1952) and *Ceratochloa* in the second edition (1962), appears to be a very conservative 'lumping' approach. The sequencing given was: *Bromus erectus*, *ramosus*, *sterilis*, *madritensis*, *diandrus*, *scoparius*, *tectorum*, *schraderi*, *patulus*, *mollis*, *ferronii*, *thomii*, *commutatus*, *molliformis*, *rubens*, *interruptus*, *arvensis*, *secalinus*, *unioides*, *macrostachys*, *lepidus*, *racemosus*.

¹⁹⁴ In the manuscript, given as *Bromus mollis* L.

7) L[owe]r Bell 55 by A269. Upper Bell 55 by A229.

8) Langdon Bay, 1955 **MNE**.

10) Bradbourne Meads FSEF.

11) Wrotham Heath 1945, **MNE**. Roughetts Common, Ryarsh 55. Ryarsh sand pit '45 **MNE**. R[oa]d .E. of Lenham 1945 **MNE**. R[ai][wa]y bank Hildenborough, 563482, CAS. S. of E. Peckham 1956 **MNE**. Kelsham, Headcorn 1956 **MNE**. 917397 Field SE of Buckhall, Bethersden 62.

12) Rippers Cross 1954, **MNE**. Near Mill E of Hothfield, 1948, **MNE**.

13) Blind Lane, Lamberhurst, 1943, JRW. Southborough Common HNC. T[unbridge] W[ells] Common CAS.

15) Romney Warren by A259, '62. Shirley Moor, 1947 **MNE**. Fairfield, 1952 **MNE**. Maytham Wharf, Wittersham 1958 **MNE**.

16) Shorncliffe 1955 **MNE**.

B. hordeaceus subsp. **divaricatus** (Bonnier & Layens) Kerguélen.¹⁹⁵

Shoddy alien.

4) Sandwich, 1960, DMCC, **MNE**.

9) Birchington, 1960, DMCC **MNE**.

11) Wrotham, 1960, DMCC **MNE**.

B. hordeaceus subsp. **ferronii** (Mabille) P.M. Sm.¹⁹⁶

4) Sandhills N. of Deal, ESM (det. Häckel as *B. mollis* var. *confertus* Mabille: probably this: see Fl. K.): Deal Links, 1961 **MNE**. Fixed dunes E. of Downs Fm, Sandwich, 1962, KFC; 1963 det. A. Melderis. Sandwich Bay, 1960, EGP **MNE**. Abundant on fixed dunes in several places between Deal and Princes Golf Links.

8) Shakespeare Cliff. Abbotscliff, 1953 **MNE**, 1960 **MNE**.

15) Old Dunes S. of West Hythe, 1962.

B. hordeaceus subsp. **thominei** (Hardouin) Braun-Blanq.¹⁹⁷

2) Chalk gravel pits, 1946 **MNE**. Grain S. Beach, 1945 **MNE**; 1955 **MNE**. Horrid Hill, Rainham, 1952 **MNE**. 56 Ham Hill, Birling, PCH.

4) Sandwich Bay, on dunes, 1956 **MNE**, 1963, KFC, det. A. Melderis.

6E) Lane End to Green Street Green, 1945 **MNE** 1951 **MNE**.

8) Shakespeares Cliff, 1955 **MNE**. Barham Downs 1955 **MNE**.

11) Meadow W. of Penshurst 1953 **MNE**.

12) Hothfield Common 1945 **MNE**.

13) Tunbridge Wells Common, 1961, CAS ("common here").

15) Dungeness, 1953-56 **MNE**. Old shingle Palmarsh, LJM.

B. lepidus Holmberg

* 16: BEC (1929) pp.41-42. *15: BEC (1935) pp.47-48.

2) Shorne Marshes, 1956. P.C.H.

4) Sandwich Bay, KFC.

5) By field W of Shoreham, 1951 **MNE**. Chevening Park 1955 **MNE**. Farningham, AHG Alston, 1934 **BM**. In field of *Lolium multiflorum*, Eynsford, ESM, **BM** det. I.A. Williams: *J. Bot.*, 1929, p.68.

6) Roadside above Trottscliffe 1945. Ranscombe Fm, Cuxton 1946. Fields near Lads Fm, Snodland, 1945, **MNE**. Green Street Green.

7) W. of Thurnham Castle, 1961, **MNE**.

8) Below Juliberry Downs, Chilham, in pasture, 1945, **MNE**. Cliffs E of Dover, 1955 **MNE**.

11) 64 Beltring, J.P.M.B. 54 W. of Penshurst, 1947 **MNE**.

12) R[oa]dside, Hothfield, Common, JMPB.

13) 64 North Fm. Sewage W[or]ks, Sherwood Park, T[unbridge] Wells, 1954, CAS.

B. interruptus (Hack.) Druce

¹⁹⁵ In the manuscript, given as *B. molliformis* Lloyd.

¹⁹⁶ In the manuscript, given as *B. ferronii* Mabille.

¹⁹⁷ In the manuscript, given as *B. thominii* Hardouin. It may be that many of these records, especially the inland ones, should be placed in *Bromus x pseudothominei*, which was not named until 1968.

Colonist, of doubtful origin; cultivated fields; not seen recently. See *Fl. K.*, p.413-4; *J.Bot.* 1895, p.344; *J. Linn.Soc.* 32, p426-430, 1896.

1) Eltham, 1894, A.H.W.D. Sainfoin field near Dartford Hospital (W of Darenth Wood), 1893, A.H.W.D. **BM**.

6) Cultivated field, Snodland, J.M. Roper, *BEC Rep.* 1923, p.413. Lads Fm., Snodland, J.E.L. Upper Halling, J.P.M.B. Sainfoin field, Singlewell→Cobham, CEB, 1912 **BM**.

It has been found also in Surrey, Cambridge.

†*B. secalinus* L.

Colonist or casual in fields and waste ground: many old records for 1), 3), 4), 5), 6), 7), 8), 11), 12), 13) and 16) (see *Fl. K.*); recently only as follows:

11) 94 Elvey Farm, Pluckley, ES. 84 E of Headcorn. Egghill Fm., Smarden, in wheat, Mr. Miller, teste L. Hawkins (sp!).

15) Lydd Common, 1946? Var *grossus* Desf. Cornfield Appledore, 1 pl[ant], ESM, 1893 **BM** conf[irme]d Melderis.

†*B. lanceolatus* Roth.¹⁹⁸

1) Woolwich, C.H. Grinling, *BEC Rep.* 1921, p.403.

†*B. scoparius* L.

8) Near Dover, Mr. C. Moore, June 1897, **BM**, ex Herb. Roy. Bot. Soc. det. Melderis.

†*B. schraderi* Steudel¹⁹⁹

1) & 2) Casual about Woolwich and Greenwich AHWD (see *Fl.K.*).

†*B. patulus* L.²⁰⁰

Casual 2) Woolwich Arsenel, AHWD, 1892.

Bromopsis (Dumort.) Fourr.²⁰¹

B. ramosa (Huds.) Holub²⁰²

1) High Wood, Crofton PCH. Copse by N. Cray Ch[urch] PCH. Wet wood by R[iver] N. of N. Cray PCH. N. Cray Wood PCH.

2) Oare Meadow HMW.

5) Larches Wood W. of Farnborough PCH. Near Knockholt, Lrag 1934 **MNE**. Wood S. of Cudham 1949 **MNE**.

6) Mounts Wood PCH. R[oa]dbank in shaw, Foxendown Hill, Meopham, '62. Downs E of Shoreham PCH.

Preston Hill Wood PCH. Kemsing Downs PCH. Copse E of Wrotham PCH. Wingate Wood Halling PCH. Cockham Woods, DMCC.

7) Chalk pit by A2, E of Preston HMW.

8) Wolverton Wood border, Alkham, '62. Frandham Wood, KDR. Reinden Wood BN.

10) Bradbourne pits FSEF. R[iver] path below ShorehamPCH. Eynsford PCH. St Johns Jerusalem PCH. Wood S. of Darenth Ch[urch], 1944 **MNE**.

11) Sandling Wood, Maidstone, E.G.P., 1957, **MNE**.

13) Holden Corner Southboro[ugh] Common HNC. Bayham CAS.

16) Seabrook, 1955, **MNE**.

B. erecta (Huds.) Fourr.²⁰³

1) S. side Eltham Common 1934 Lrag **MNE**.

5) Cross R[oa]ds on chalj A20 N of Farningham PCH. Down W. of Shoreham. Darwins Bank, Downe, 1962 Downe Golf Course, 1957. Down NE of Pilgrim Ho[use] Westerham 1962. Chevening Park, 1961. Downs below Polhill. Pilgrims Way Polhill PCH. Chevening Park, PCH. 426577 W of West[erha]m Hill RAC.

¹⁹⁸ In the manuscript, given as *Bromus macrostachys* (without citation; presumably Desf. Intended).

¹⁹⁹ Nomenclature as given; may best relate to *Ceratochloa*.

²⁰⁰ May belong under *B. squarrosus* L.

²⁰¹ In the manuscript, all *Bromopsis* species are subsumed into *Bromus*.

²⁰² In the manuscript, given as *Bromus ramosus* Huds. and placed after *Bromus erectus*.

²⁰³ In the manuscript, given as *Bromus erectus* Huds.

- 6) E)** Green St[reet] Green Common, FR. Down S. of Purvil Wood, Priestwood 61. Swanscombe Wood Borders PCH. Greenhithe 1838 HCW **MNE**: 1946! Horton Kirby PCH. Down by Fawkham Ch[urch] DVS Woods. Shoreham Rifle Range Downs d[ominant]. White Hill, Downs E. of Shoreham, PCH & FR. Preston Hill Down DVS Woods. Dunstall Woods, in glades, 1960. Otford Mount d[ominant] **MNE**. Down W of Greenhill Wood Otford, d[ominant]. Kemsing NW downs l[ocally] d[ominant]. E of Beechy Lees, l[ocally] d[ominant]. W. of Wrotham d[ominant]. Down E of Wrotham d[ominant]. Wrotham Water Down. Trosley Pilgrims Ho[use] W. d[ominant]. Trosley N. of Ch[urch] d[ominant] on downs. Ryarsh Downs d[ominant]. Birling Downs d[ominant]. Down N. of Crookhorn Wood d[ominant]. Down NW of Crookhorn Wood d[ominant]. Down Mount Ephraim Snodland d[ominant]. Upper Halling Downs d[ominant].
- 7)** Down above Boxley W[ater] Works '62. Bluebell Hill 57 EGP **MNE**. Down E of Whitehorse Stone 62. Scarborough Spur, Church Spur, Delta Down, Burham '55 **MNE**. W coombe: Detling Hill. Thurnham Castle. Broad Street. Allington Down. Hollingbourne Hill. Down in Filmer Wood, l[ocally] d[ominant].
- 8)** Rare on scarp E of Wye. Down N. of Crundale Ch[urch], l[ocally] d[ominant], 1960. Ch[alk] bank, Bonny Bush Hill, Kingston, v[ery] l[ocal], '62. Beech Plant[atio]n E side Goodnestone P[ark], '62. Tolford Hill 1945 **MNE**. Postling Downs 1945 **MNE**.
- 9)** N. Foreland Golf Course 1954 **MNE**.
- 11)** R[ail]w[ay] Bank by Straight Mile, W of Tonbridge, 1960, CAS.
- 12)** R[oad]side, A.20, Mersham.
- 13)** R[ail]w[ay] bank, W of T[unbridge] Wells West Sta[tion], CAS, 1956, **MNE**. Calverley Grounds, T[unbridge] Wells, 1955 CAS: K.E.B. 1961.

Anisantha K. Koch²⁰⁴

†**A. diandra** (Roth.) Tutin ex Tzvelev²⁰⁵

Alien, occasionally naturalised. * vc15, BEC Rep. 1937, p.519.

- 1)** Woolwich Common, GMB.
- 4)** Pegwell Bay Beach, 1961, Mrs. B. Dodds. Beach N. of Sandwich Bay, opp[osite] Princes Club Ho[use], 1962. Sandwich Shoddy 1960 DMCC **MNE**.
- 11)** Fairbourne Heath, 1960, Mrs B. Dodds, det. D.McC. **MNE**.

A. sterilis (L.) Nevski²⁰⁶

- 1)** Crofton Heath PCH. Bexley Ch[urch]y[ar]d PCH. Ruxley pits S&S. Upper Hockenden PCH. Blackheath GMB. Woolwich Common Lrag 1934 **MNE**. Farningham Wood 82!
- 2)** Waste G[roun]d, Crossness PCH. Medway Bank above Aylesford Br[idg]e, '55.
- 5)** Farningham R[oad] St[at]io[n] Approach PCH. Field W. of Shoreham PCH. 3964 Well Wood PCH.
- 6)E)** Green Street Green Common PCH. Mounts R[oad] PCH. R[oad]side E of Kemsing PCH.
- 7)** L[owe]r Bell / Up[pe]r Bell, A229. '55. Warren L[a]n[e] L[owe]r Bell '62. Tassels Wood Norton (edge on broken ch[alk] soil) 62. R[oad] Hedge, the Valley, Otterden 62.
- 10)** Otford, PCH. R[oad]side, Eynsford, PCH. S. Darenth PCH.
- 11)** Old wall, The Friars, 1962. Sandling Woods 1957 EGP, **MNE**. R[oad]side F[olkstone] Sand, Forstal – Sandling 62. E. Malling common 62. W. Haver, 1955. R[ail]w[ay] bank, Hildenborough 563482, CAS.
- 13)** Southborough Common HNC.
- 14)** 93 Woodchurch ES.
- 15)** Ancient dunes S. of Hythe 1962. Romney Warren 1962.

†**A. tectorum** (L.) Nevski²⁰⁷

- 2)** 1 pl[ant] on sea wall, Dartford Marshes, 1961, M. Swain.

†**A. madritensis** (L.) Nevski²⁰⁸

It could have been native near Sandwich.

²⁰⁴ In the manuscript, all *Anisantha* species are subsumed into *Bromus*.

²⁰⁵ In the manuscript, given as *Bromus diandrus* Roth.

²⁰⁶ In the manuscript, given as *Bromus sterilis* L.

²⁰⁷ In the manuscript, given as *Bromus tectorum* L.

²⁰⁸ In the manuscript, given as *Bromus madritensis* L.

Old records for **4)** Sandown Castle (Petiver 1716) and Walmer Beach, 1866, **16)** C.P.S.K. "frequent": none since 1866 (see *Fl.K.*).

A. rubens (L.) Nevski²⁰⁹

Shoddy alien.

4) Sandwich, 1960, DMCC **MNE**.

Ceratochloa DC. & P. Beauv.

C. carinata (Hook. & Arn.) Tutin²¹⁰

†C. cathartica (Vahl) Herter²¹¹

1) Hayes, Mrs. Wedgewood, *BEC Rep.* 1921, p.403. Bickley, Garden Wood, 1955, D.P.Y. – Hb. DPY.

13) Waste ground, High Brooms, J.P.M.B., *BEC Rep.* 1939-40, p.304.

Brachypodium Beauv.

B. pinnatum (L.) Beauv.²¹²

5) 45 Chevening Park, 1955 **MNE** – l[ocally] d[ominant].

6) 66 S. of Cobham Park. 76 S, edge of Great Wood, Cuxton 1955 **MNE**. 66 Downs S, of Purvil Wood, Priestwood (ploughed 1945) 1962.

7) 85 Down NW of Broad Street, E of Thurnham 1950-62, increasing patches. Hollingbourne Hill, a[bundant] and E to Harrietsham. Hart Hill. Charing Gill and E to Westswell. Eastwell Park. Belmont Golf Course, Throwley, CT. Lees Park, Sheldwich, Down of W. aspect 62. 94 V[ery] l[ocally] d[ominant] Foot of Weswell Hangers '62. 05 Godmersham Downs. 05 Down NW of Bilting, Whitehill.

8) Broad Downs 1962 open d[ominant]. Brook Hillock 62. L[ocally] d[ominant] ENE of Giddy Horn '62. D[ominant] above Cuckolds Coomb 62. A[bundant] Down N. of Podlinge 62. L[ocally] dominant Down SW of Lydden 62. SE of Swingfield 62. Wolverton [cross]r[oad]s 62. By Sladden wood Alkham '55. Chilton '62. Woodville- Lydden 1960 **MNE**. Down 1m NE St Marg[aret]s at Cliffe l[ocally] a[bundant] '62. Free Down f[requent] – l[ocally] a[bundant]. Brabourne Downs. Stowting Downs W. Postling Downs d[ominant]. Tolsford Hill d[ominant]. Brockmans Bushes d[ominant]. E. of Etchinghill l[ocally] d[ominant] → Newington. N of Beachborough d[ominant]. Newington Down d[ominant]. Cheriton Downs d[ominant]. Folkestone Downs d[ominant]. Dover Hill l[ocally] d[ominant]. Top of Abbotscliff l[ocally] d[ominant]. Grassheath on Pliocene, Stelling Minnis N, 62. Chalk Bank Bonny Bush Hill Kingston '62. Down NW of Misling Fm, Elmsted, '62. Little Fredville, 4' high, DMCC. Barham Downs. Chartham Downs. Folkestone Warren, **MNE**. Lydden Spout and above. Shakespeares Cliff. E Cliff Dover. Langdon Barracks. Langdon Bay. Fan Bay. S. Foreland.

11) Warren Wood, Leeds, R[ail]w[ay] cutting on gault.

13) Horsmonden New Church, abund[ant] on road verge.

16) Ragstone scarp W. of Hythe. R[oad]side, Sandling Junction.

B. sylvaticum (Huds.) Beauv.

1) Woolwich LRA 1934 **MNE**. Abbey Wood PCH. High Wood Crofton PCH. Holwood Park PCH. Joydens Wood. R[oad]side, Bexley → N Cray PCH. N. Cray Wood, PCH. Ruxley pits. Shooters Hill GMB. Beckenham Place Park Woods '55. Elmstead La[ne], Bexley. R[ail]w[ay] bank, Orpington, 1944. Farningham Wood, 82!

2) Brambledown by R[oad], 55. Copse S of Brambledown Farm 55. Oak Wood, Brambledown 55. R[oad] W. of Eastchurch 55. R[oad] E of Eastchurch 55. Warden Ash copse 55. Eastchurch cliffs 55.

3) Shelving Wood (Wool[wich] Beds) Hoath, 62.

5) Hedgebank on chalk W. of Eynsford PCH. Larches W[ood] W of Farnborough PCH. Darwins Bank, Downe 1962. Knockholt LRA 34 **MNE**. 426577 W. of West[er]ham Hill RAC. 398811 PCH. Pilots Wood PCH. Pilgrims Way Polhill PCH. Chevening Park PCH. Down E of Pilgrim Ho[use] Westerham 62.

6) Mounts Rd PCH. Mounts Wood PCH. Darenth Wood. White Hill Shoreham. Preston Hill PCH. Shoreham R[ifle] range PCH. Magpie Bottom PCH. Greenhill Wood, Otford PCH; 62 FR. Kemsing Downs PCH. Downs W. of Woodlands Hill, N of Ightham 55. Downs, Woodlands Hill, 55. NW of Wrotham village '55. Halling Warren.

²⁰⁹ In the manuscript, given as *Bromus rubens* L.

²¹⁰ In the manuscript, given as *Bromus carinatus* Hook. & Arn., without any records.

²¹¹ In the manuscript, given as *Bromus uniloides* Kunth.

²¹² In the manuscript, preceded by *B. sylvaticum*.

Recolonised Down S. of Purvil Wood Priestwood 1961. Down E of Molehill Wood Buckland 61. Foxendown Hill, 62.

E) G[rea]t Chattenden Wood. Northward Hill Wood.

7) Burham Down, Church Spur/ Scarborough Spur (scrub) **MNE**. Boxley W[ater] Works Down 62. Rainham Park Wood 1961 **MNE**. Queen Down warren '55. Down N of Bredhurst Hurst '55. Wood, Bredhurst Hurst '55. Down E of Whitehorse Stone Bluebell Hill '62. Pilgrims View L[owe]r Bell '62. Filmer Wood Chalk down '62. Tassels Wood edge, Norton (ch[al]k) '62. Border of Spuckles Wood Stalisfield 62. Hanges NW of Westwell '62.

8) rare, Broad Downs Brook '62. Copse (ch[al]k) N. of Bavinge 62. Wood W. of Podlinge (ch[al]k) 62. Land N. of Bossingham '62. Bourne P[ar]k, Bridge '55. Bridge Hill N, '55. N of Wolverton in wood and by lane (ch[al]k) '62. Wood NW of S. Alkham '55. Beech Pl[antatopn] S. side Goodnestone P[ar]k '62. Opp. Puckland Wood (ch[al]k) '62.

9) Sevenscore E of Minster, 1956 **MNE**.

10) Rooks Hill, '55. Westerham Wood 82! Pastures N. of Farningham PCH.

11) Wood SE of L[owe]r St Clere Kemsing '55. Larkfield Heath '55. Oaken W[oo]d R[oa]d Barming '55. E end of Mote Park. Springfield copse, E. Malling '55. Kiln Wood Lenham (Sandgates) '62. R[ai]l[wa]y bank Hildenborough 563482, CAS. R[oa]dside N. of Hildenborough '55. Starvecrow Woods. Tonbridge Castle. ¼ m N of Bough Beech. Wood by Stre[am] 1m N of Bough Beech. R[oa]dside, Whetsed '45. Wood, Golden Sq[ua]re S. of Smarden '62, 885915. Birch Wood, Bethersden 915402, '62. Beult N of Buckmans Green 889419, '62.

13) Stone Cross, Ashurst, 523388, '59 CAS. Damp Wood on clay, S. Park, Penshurst, 62. Southborough Spring Lane HNC. Bayham Abbey CAS. Bedgebury Pinetum '55. Combwell Wood, 1979.

14) 1½ m S of Hawkhurst '55. Knock Wood, Tenterden by R[oa]d, '62. Ash[down] S[and] gill, College Wood, Wittersham 62. Shaw E of B2082 on clay loam over Ash[down] S[and], Underhill Wittersham 62.

Elymus L.²¹³

E. caninus (L.) L.²¹⁴

15, 16

Native.

1) Elmstead Lane, by Kid Brook, Sundridge Park, Chislehurst 424703, 1957; 1965. Shooters Hill Woods, G.M.B. 1958. Sutton art Hone, bank by church, 553705, HMP, 1949.

2) Bank of River Path, NW of Aylesford (Elm copse on Valley Terrace gravel, 1955 PC & JH; 1962! 718600) **MNE**. Copse S. of Snodland on alluvium, 705613, 1955 **MNE**. 66 Ham Hill stream, PCH.

5) Saltbox hill, Shade on chalk, 408605, 1955, **MNE**.

6) Darenth Wood, on Thanet Sand, 1960 **MNE**. Birling Hill top by R[oa]d (shady bank) 670625, 1962. Vigo Hill, banks, 633609. Land W. of Cuxton 1960 **MNE**. R[oa]d verge E of Stone Castle 587742 HMP. Copse, NewBarn, hay field< Longfield, 620691, 1958. Copse E of Southfleet, 621707, 623708, PCH.

7) Shady track in Ash/hazel Wood, Burham Down, 1955, 739622. E. border of Belmont Park, Throwley in light shade by r[oa]d, 1959 **MNE**. Rainham Park Wood (Ash Wood) 1961 **MNE**. Copse (hornbeam) E of Marshall Rd, Rainham, 1958. Old Wives Lees, Chilham, 087547. 13 clumps on bank, Ash tree nearby, 1956, D. Royle. Mountain Street, Chilham DHK.

8) Thruxted Mill, Denge Wood, 095509, under Ash, 1956, D. Royle. Edge of Larkey Valley Wood. Thanington, 127559, 1956, D. Royle (V[ery] a[bundant] under Ash and Elm) **MNE**.

10) By Darent, S. of Darent Church, 1944, 560711 **MNE**. Copse by Darent, Roman Villa, Darenth, 563707, 1957 **MNE**. Wooded river cliff of Darent, SW of Eynsford, 533645, 1956 **MNE**. By Darent, S of Lullingstone Castle, 529641, 1956 **MNE**. Bradbourne Meads, Riverhead, F.S.E. Fawkes, 1957.

11) Nettlestead, 684523, by B.2015. By Medway, S of Teston Br[idg]e 709530. Sandling W[oo]d 1957 EGP. By Medway E of Barming Br[idg]e 725539. E Farleigh 739538. Maidstone (Archbishops palace) **MNE**. Bydews Wood Tovil, 745542. NE of Hadlow by A26, 640509 **MNE**. Lane, Frittenden to Lashenden, RAC. 889419 1 pl[ant] by Beult N of Buckmans Green, Smarden 1962. By Medway, S.E. of Watlingbury, 699527, 1957 **MNE**. Beult SE of Burford Hunton 742983. Beult S. of Cheveney Yalding 709941. Beult W. of Cheveney Yalding 704995. Teise SW of Marden, 725426, 1956 **MNE**. S. of Elphick Fm Hunton 715482. S. of Laddingford 690470 **MNE**. Lunsford Osiers 695595. Wall, Larkfield, 700582 **MNE**. Medway S. of Yalding 690496 / 685492 **MNE**. Medway E of Hale St[reet] 679493 to 682495. Med[way] E of Brandbridges 677486 **MNE** 681487. Med[way] SW of E Peckham 652471 to 659473. E of Hartlake Bridge 634473 **MNE**. W of Hartlake Bridge 627473. Above Tonbridge 571465 to 577467 **MNE**. S. of Bridge, SW of Leigh 546452. Below Tonbridge 599467 / 613471 **MNE** (617471). Trib[utary] Stream Rof Beult, E of Golden Square, Smarden, 1962, in shade, l[ocally] f[requent]

²¹³ Treated, with *Elytrigia*, as *Agropyron* Gaertn.

²¹⁴ In the manuscript, given as *Agropyron caninum* (L.) Beauv.

887412. By Len, Fullingmill, Hollingbourne, 818542, 1856, 1959 **MNE**. W. Malling nr. Startled Saint, 1960, **MNE**.

12) Thanington, ash copse by A.28 on calc[areous] alluvium 1955, **MNE**. Under ash, NE of Chilham nr. R. Stour, 085539, D. Royle **MNE**. Chilham, W of Mill under Ash trees, 1955 **MNE**. [Wye, Lady D.]

Elytrigia Desv.²¹⁵

E. repens (L.) Desv. ex Nevski²¹⁶

1) Blackheath. Shooters Hill. Ruxley pits. Crofton Heath PCH. Pickhurst Mad PCH. N. Cray tip PCH. Farningham Wood 82!

2) Woolwich Arsenal PCH. Dartford Marshes 541761, '62. R[iver] wall Dartford 545777, '62. Medway bank above Aylesford Br[idg]e '55. Funton Creek edge '62. S. Minster Marshes '55. Scrub S. of Scrapsgate 55. Brambledown '55. Shellness '62. Sheerness canal O.D.

3) Hernhill village banks '55. Boughton Street banks '55.

4) Track N. of Shuart, St. Nicholas 271690, '62. Richborough Port 1946 **MNE**. Stodmarsh PWW, '63.

6) Mounts Rd, PCH. Swanscombe Wood 1945 **MNE**. R[oa]dside Foxendown Hill, 62, Romney St[reet], PCH.

7) Longbeach Wood ES.

8) Bridge JG.

10) R[oa]dside 1m. E. of Westerham 1955 **MNE**. 7oaks tip CAS. R[iver] bank N. of Shoreham PCH. By R[iver] S. Darenth PCH. St Johns Jerusalem PCH. Bradbourne pits FSEF.

11) E. Malling, 1963. W. Malling. Maidstone, 1957 EGP **MNE**. By Beult Buckmans Green 889419, '62. By Beult E of Buckhall, Beth[ersden], 62. Lane E of Golden Square Smarden, 886913, 62. 1m E of Headcorn 849437, '62. W. Marley Fm Smarden 863439, 62.

13) Southborough Gdn HNC. Bayham Abbey CAS.

15) Fixed dune, by A.259, Romney Warren, '62.

Var. lasiorachis Hack.

1) Abbey Wood, C.H. Grinling & St.J.M., *BEC Rep.*, 1922, p.754.

E. atherica (Link) Kerguelén ex Carreras Mart.²¹⁷

[Sea Couch]

2) River Bank, Erith Marshes, PCH. River Bank, Dartford Marshes, 1962, 545777 & 541779. Stone Marshes '62 HNS. Greenhithe, 1862 **MNE**. River bank, Salting top, Cuxton 1943-44 **MNE**. Snodland 1890, '98, HL, **MNE**. Conyers Creek 1943 **MNE**. Oare Sea Wall, CT. Higham Saltings. Cliffe Saltings. High Halstow. Egypt Bay. All Hallows. Grain N. Beach, 1945 **MNE**. Funton Saltings, '62. Shellness, '62. [Sheppey AGD 1918 **MNE**.]

4) Track N. of Shuart, 270686, 62. Salting edge, N. of Shuart 266692, 62. Pegwell Bay, 349641, D Rolye, '56. Sandwich Bay. Behind dunes; Shellness.

15) Denge Beach, J. Hubbard.

E. repens x **E. atherica** = **E. x oliveri** (Druce) Kerguelén ex Carreras Mart..²¹⁸

[Frequent where the parents meet along the coast and estuaries.](#)

2) Greenhithe 1862 **MNE**. Cuxton 1944 **MNE**. Conyers Creek 1944 **MNE**. Sheppey, AGD, 1918 **MNE**.

E. juncea (L.) Nevski²¹⁹

[Native. Sanddunes, the main primary colonist and builder of foredunes: locally common in such habitats on the coast from All Hallows to Greatstone. Frequent in suitable places in Sussex, Essex and N. France.](#)

2) Beach, All Hallows. N & S Beach, Grain, **MNE**. Beach N. of Leysdown. Sandy Beach, Shellness. Castle Coot, N. of Graveney. Beach opp[osite] "Rose in Bloom", Seasalter, 1959 HM Wilks **MNE**.

4) Beach, Pegwell Bay, 1946 **MNE**. Sandwich Bay to Shellness, abundant on foredunes and strand, 1946-62.

9) Below cliffs, Pegwell Bay, 1946.

15) Greatstone Dunes, 1946 **MNE**. Near shore, Romney Warren, 1946. Denge Beach, J. Hubbard.

²¹⁵ Treated, with *Elymus*, as *Agropyron* Gaertn

²¹⁶ In the manuscript, given as *Agropyron repens* (L.) Beauv

²¹⁷ In the manuscript, given as *Agropyron pungens* (Pers.) Roem. & Schult.

²¹⁸ In the manuscript, given as *Agropyron pungens* x *repens* = *A. x oliveri* Druce.

²¹⁹ In the manuscript, given as *Agropyron junceiforme* (A & D. Löve) A. & D. Löve.

E. atherica x E. juncea = E. x obtusiuscula (Lange) Hyl.²²⁰

Not infrequent with the parents, on the dune systems.

2) N. of Cuxton, 1943, **MNE**: but *junceaforme* does not occur here, and perhaps never did. Grain S. Beach, 1949, 1959 **MNE**. Shellness, Sheppey, 1959, **MNE**.

4) Sandwich Bay, 1945 **MNE**.

15) Romney Warren, 1945 **MNE**.

Leymus Hochst.²²¹

L. arenarius (L.) Hochst.

Native. White Sand dunes: extremely rare, and only recently found. Probably planted in Sussex.

[Casual at 1) Murray Avenue, Bromley, 1946, G.W. Coxhead.]

4) Sandwich Bay, c. ¾ m. N. of Princes Club House on fore-dunes, about seven clumps, 1962, C.A. Lister, who showed it to me shortly afterwards.

Hordelymus (Jess.) Jess. ex Harz

H. europaeus (L.) Jess. ex Harz²²²

16

1/51

Wood Barley

Native. In one Beechwood on calcareous soil derived from ragstone; extremely rare. It is strange that this species has not been found on the chalk downs of Kent: it occurs rarely (Effingham, Ranmore, Chipstead, etc.) on those of Surrey. It occurs in a wood on boulder clay near Thaxted in N. Essex, but is unknown in Sussex. The nearest French locality known to me is Forêt d'Eu in Normandy. It is of course common in the Chiltern and Cotswold Beechwoods.

10) Copse by Roadside, Riverhill, 1842, W. Borrer; Fl. Tonbr. suppl. p.26; 1955! in Beechwood on ragstone scarp on E. side A.21, not seen in 1960. It is remarkable that this locality appears to have been overlooked from Borrer's time until 1955, but it does not appear every year.

Hordeum L.²²³

H. distichon L.²²⁴

H. murinum L.

1) S. of Woolwich Common '34 Lrag **MNE**. Crofton Heath PCH. R[oad]side Upper Hockenden PCH. Banks, Bexley Mill Pond PCH. Banks, R[iver] Cray, N. Cray, PCH. N. Cray Wood, PCH. Blackheath GMB. Pickhurst Mead, PCH. Shooters Hill GMB. Ruxley Pits, GMB. Farningham Wood 82.

2) Woolwich Arsenal PCH. Sewerbank Plumstead PCH. R[oad]side, Funton Marshes, '62. Shellness '56.

3) Dry Pasture S. of Highstead, Hoath, 62.

6) Mounts Rd PCH. Swanscombe Wood PCH.

10) Otford PCH. R[iver] path N of Shoreham PCH. S. of S. Darenth PCH. St Johns Jerusalem PCH. E of Farningham R[oad] St[at]ion PCH. Headcorn Ch[urch] y[ar]d, '62.

11) West Street, Harrietsham, BD. E. Malling. Maidstone **MNE**. By Pond E of Hale St[reet] CAS. Edenbridge Tip DPH.

13) Southborough Common HNC.

14) Wittersham Ch[urch] y[ar]d '62.

15) Lydd Airport DMCC.

H. murinum subsp. glaucum (Steud.) Tzvelev²²⁵

Shoddy alien

4) Sandwich 1960, **MNE**.

9) Birchington 1960 **MNE**.

10) Brasted 1960. All DMCC.

H. secalinum Schreb.

[Meadow Barley]

1) Shooters Hill, GMB.

²²⁰ In the manuscript, given as *Agropyron junceaforme x pungens* = *A. x obtusiusculum* Lange.

²²¹ In the manuscript, given as *Elymus*, and its representative species as *Elymus arenarius* L.

²²² In the manuscript the genus is cited as (Jessen) Harz and the species as (L.) Harz. The entry follows *Hordeum*.

²²³ The sequence of species in this genus is given as *H. secalinum*, *H. murinum*, *H. marinum*, *hystrix*, *glaucum*, *trifurcatum*.

²²⁴ Included in a note: *Guizotia abyssinica*, *Hordeum distichon*, *Secale cereale* – Longfield tip, 3657, PCH.

²²⁵ Given as *H. glaucum* Steud.

- 2) Erith Meadows PCH. Barnes Cray, '44 **MNE**. Stone Marshes. Swanscombe Marshes. N. of Cuxton 1945 **MNE**. All Hallows 45 **MNE**. Grain. Lower Stoke 1959 **MNE**. Pastures, S. Chetney Marshes, 62. Oare Meadow HMW. N. of Leysdown '56 **MNE**. Sheerness AED [sic, for AGD?], 1918 **MNE**. Shellness 1960 **MNE**.
- 3) Swalecliffe.
- 4) Marshside Chislet 225661, 62. Past[ure] N. of Shuart, 270686. Sandwich Bay, meadows to rear.
- 8) Denton, meadow, DACL. Kingsdown, above Knights' Bottom, B.N.
- 10) S of Darenth Ch[urch] 1954 **MNE**. Meadows above S. Darenth PCH. Meadows N. of Bat & Ball, S[even]oaks 1950 **MNE**.
- 11) Meadow on Gault SE of Trottisliffe 1945 **MNE**. E of Edenbridge 1950 **MNE**. W. of Penshurst, 1949 **MNE**, 1963. E. of Chiddingstone, 1949 **MNE**. R[ai][wa]y bank, Hildenborough, 563482, CAS. Goose Green, CAS. Meadows above Tonbridge. Meadows below Tonbridge. R[oa]dside, Ulcombe to Grafty Green, B.D. Yalding meadows 1957 EGP, **MNE**. R[oa]dside Leighbridge, Headcorn 813454, '62. Past[ure] E of Buckhall Bethersden, 917397, '62. Past[ure] ¼ m SE of Smarden, 879417, '62. E of Headcorn 1956 **MNE**. By Pond E of Hale St[reet] CAS.
- 12) 93 Stubbs Cross Kingsnorth, 1952, **MNE**. 95 Meadow E of Ch[urch], Lenham, 1960 **MNE**.
- 13) 63 By pathway to church, Lamberhurst, 1939, J.R.W. Weed Forest plots, Bedgebury, '58, LJ Davies. [Tun[bridge] Wells, W.W.R. **TLS**.]
- 14) 83 R[oa]dside E of Cranbrook, DS.
- 15) 13 Hythe JG. Dungeness F. Swain. Shirley Moor, 1965.
- 16) 13 Postling Wents KDR.

H. marinum Huds. 15, 16 SeaBarley

Native. Sea-walls and dry banks near the sea, usually of clay: frequent to locally common in the Thames estuary from Stone to Shellness in Sheppey and Whitstable in 2), but rare in 4) and 15).



- 2) Stone Marshes, 1945. Northfleet Marshes, 1946. Seawall, Higham 1962, HAS. W. of Yantlet 1954 **MNE**. All Hallows, 1945 **MNE**. Grain, 1945, **MNE**. L[owe]r Stoke 1949 **MNE**. Seawall N. of Oare, C.T. Seawall, Nagden, B. Dodds. Chetney Marshes, seawall, dike banks and creek margin, '62. N. of Blacketts, Tonge, 1958 **MNE**. Cuxton 1890, H.L., **MNE**. Faversham Creek 1956, Rev. D. Murray. N. of Leysdown 1949, '56 **MNE**. Shellness, 1956 **MNE**. Graveney DHK, 1957 HMW. W of Seasalter, 1951, DMcC.
- 3) 16 Shore W of Whitstable HMW.
- 4) Kingsdown, beach, KDR.
- 15) Between the long pits, Denge Beach, J. Harper. [Dymchurch, 1902, Lady D.]

†**H. geniculatum** All.²²⁶

Shoddy alien.

- 4) Sandwich, DMcC 1960; **MNE**.
- 11) Comp, DMcC 1960, 61 **MNE**.

†**H. trifurcatum** Jacq. Belvedere, Poore & St.J. M., *BEC Rep.* 1922, p.754.

Secale cereale²²⁷

Triticum aestivum L. Yalding, E.G. Philp, 15-6-1957.

Danthonia DC²²⁸

D. decumbens (L.) DC²²⁹

- 1) Chislehurst Common, 1945- **MNE**. Hayes Common, 1944-. St. Pauls Cray Common, 1946-. Keston Common, 1945-. Dartford Heath, 1960 **MNE**. Sparrow Fields, Swain.
- 3) Minching Wood, Blean 1957 **MNE**. Heath, Church Wood, Blean, RGW.
- 4) Worth Minnis, 1950, **MNE**. Ham Fen, in meadow, 1956 **MNE**.
- 5) Downs in Chevening Park, 1961 **MNE**.

²²⁶ Given as *H. hystrix* Roth.

²²⁷ Included in a note: *Guizotia abyssinica*, *Hordeum distichon*, *Secale cereale* – Longfield tip, 3657, PCH.

²²⁸ Given as *Sieglingia* Bernh. In the manuscript.

²²⁹ Given as *S. decumbens* (L.) Bernh. in the manuscript.

8) Chalk Downs, E. of Etchinghill. 1946-. Covert Lane, Kingston, 1946 JG.

10) S. of Sevenoaks, 1944. Rose Wood, Ightham, 1944.

11) Wrotham Heath, 1946-. Oaken Wood, by Barming Rd., 1943 JHL. Kings Wood, Langley, 1949, DMcC. Platt, DMcC, 1949. Sandway bog, SW of Lenham, 1954 **MNE**. Hoads Wood, 1946, **MNE**.

12) Hothfield Common, 1943-62 **MNE**. Ashford Warren. Wuillesborough Lees. Monks Horton bog, 1953 **MNE**. Fen meadows, Cuckoldscomb, Brook, 1945 **MNE**. Gibbons Brook, 1954 **MNE**.

13) Hawkenbury Bog, JRN, 1944-6; 1963, R.E.Sh. Free Heath, Lamberhurst, JRW. Pembury Woods, 1961, CAS. Combwell Wood. Kilndown Wood. Pinetum, Bedgebury IGMB. Old Park Wood, 1946. Angley Wood. Stone Cross Gill, Ashurst, '59, CAS. By Brighton Lake, T[unbridge] Wells c. 1960, CAS. Chittenden Wood 1944-58 **MNE**. Southborough Common HNC.

14) Heath nr. Breeches Pond, 1947.

Molinia Schrank

M. caerulea (L.) Moench.

15, 16

23/52

1) Chislehurst Common **MNE**. St Pauls Cray Common. Keston Common, on damp heath and in the bog, AG Davis, 1915 **MNE**, 1944-62! **MNE**. Joydens Wood. Hayes Common. Woolwich Repository Grounds, Lrag, 1934 **MNE**.

3) 16 W Blean Wood, 1945. 15 W of Rough Common, 1954. 15 Church Wood, L.W.W.; RGW. 05-.

4) 35 Worth Minnis, 1946 **MNE**.

10) 55 Boggy bottom, SW corner of Seal Chart, 1954. 55 E part of Whitley Scrubs, 1949. 55 By Ponds, Rose Wood, Ightham, 1945-62. 55 Bog, Oldbury Hill. 45-.

11) 65 Heath in Valley Wood, Wrotham Heath, 1945-61, **MNE**. 65 Platt Woods. 85 Sandway Bog, Lenham, 1965, B. Dodds. 94 Hoads Wood, 1946, **MNE**.

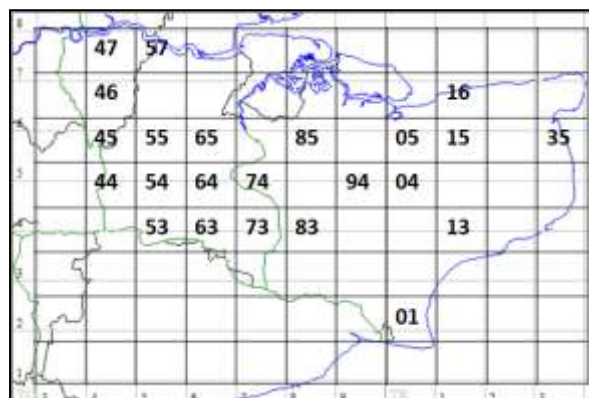
12) 94 Hothfield Common 1944-62 **MNE**. 04 Ashford Warren 1944-. 04 Wuillesborough Lees, 1944-55 **MNE**.

13) Highfield, Chiddingstone, 1954, **MNE**.

Southborough Common. Broke Wood, Southborough, 1953-54. Tun[bridge] Wells Common, 1895 HL, 1945! **MNE**. Hawkenbury Bog, to '63. Pembury Woods. Hayes Wood, Pembury, 1953. Bog by Furnace Pond, Horsmonden, 1954. R[oa]dside NE of Kippings Cross 1946. Hook Green JRW. Chingley Wood. Kilndown Wood. Combwell Wood l[ocally] d[ominant] in NE. Pinetum, Bedgebury. Louisa Lake, Bedgebury. Brewers Wood, 1946-60. Angley Wood, 1946-61. Oaks Wood, Cranbrook, 1945. Chittenden Wood 1946-62 **MNE**. Causton Wood, 1946-62. Rogers Wood, 1954, **MNE**. Roundshill Park Wood 1954. Sissinghurst Park Wood 1948-62.

14) Sandpits Wood, 1948. Brogues Wood, 1948.

15) Dungeness, old ballast pit workings, 1958, Miss B. Nash, **MNE**.



Phragmites Adans.

P. communis²³⁰ (Cav.) Trin. ex Steud.

15, 16

/51

Common Reed

Native.

*Bronze Age, Roman: macroscopic remains, Crossness, Spurrell, 1889.

1) R[ai]l[wa]y Brockley to Honor Oak, 1946, ECW. Ruxley pits, S&S. 424640 Pond, Lakes Wood, Keston., 1957, DPY.

2) Woolwich Arsenal, 1944; PCH. Sewer Bank, Plumstead, PCH. Erith Marshdes. N. of Abbey Wood 1934 Lrag **MNE**. Stone Marshes. Dartford Marshes 541761, '62. Barnes Cray. Greenhithe. Northfleet Marshes. Holborough Marshes. S. of Snodland **MNE**. Opp. New Hythe. 1m below Aylesford. Above Aylesford. Below Allington lock. Grain 1952 **MNE**. Cliffs, N. Coast, Minster. Harty. Elmley 1954 **MNE**. L[owe]r Halstow Fen, 857669, '62. Dikes by Oare Creek. Faversham Creek dikes. Seasalter. Luddenham Marshes HMW. Highham Marshes. East Church Marshes 1917, A.G.D. **MNE**. Sheerness Canal OD.

3) Swale Cliffe. Ditch by W. Blean Wood.

²³⁰ Cited as Trin. In the manuscript.

4) Wingham N. Wenderton BN. Hacklinge. Ham Fen. Worth Minnis. Preston Marshes '62. Marshside, Chislet, 225661, '62. Stodmarsh. Dikes N. of St. Nicholas 270686, 271692, '62.

6) Flooded chalk pits, Swanscombe, /S. of Northfleet.

10) The Moors, Bat & Ball, 530575 CAS.

11) Pond E of Bethersden ES, 941402. Pluckley Brickworks 919435, ES.

12) S.W. of Chilmington ES, 973400. Spot Ho[use], 973341, ES. Halfway Ho[use] S. of Kingsnorth by B2070, ES. E. of R[ai][wa]y, Rowling St[reet], 017367, ES. S Ashford 012420. S. Willesborough 010410, 017394, ES. Marshes N. of Willesborough 040445. Pond at Smeeth 067383, ES. Pond at Blackwall 040440 ES. Troytown 070442 ES. Potters Corner 990550 ES. Hothfield Lake 980545 ES. Carr E of Rooting Street, 963457 ES. Pond Kingsland, Westwell S, 995455 ES.

13) Furnace Pond, Horsmonden. [Tun[bridge] Wells, WWR TLS.

15) R[oyal] M[ilitary] Canal S of Ham Street ES, 003324. Shirley Moor, ES, 940320 etc. & N. of B2080, '65. S. of Appledore, 1952 MNE.

16) Folkestone Brickworks. The Warren.

Leptochloa fusca (L.) Kunth²³¹

1) Stonehill Green, shoddy, 1948, DMcC, det. CEH.

Eragrostis curvula (Schrud.) Nees

Sandwich, D.McClintock, 1960.

Eragrostis cilianensis (All.) Vignolo ex Janch.²³²

Sandwich, D.McClintock, 1-11-1959. Wrotham, D.McClintock, 1960.

Eleusine indica

1) Chicken run, Bromley, 1952, T.R. Eagles.

Eleusine africana O'Byrne

Wrotham, D.McClintock, 1960.

Dactyloctenium radulans [(R.Br.)] P. Beauv.²³³

1) Stonehill Green Shoddy, DMcC, det. CE Hubbard, 1948.

Chloris Sw.²³⁴

Shoddy alien, at 4) Sandwich, 1959, DMcC, MNE.

Cynodon Rich.²³⁵

C. dactylon (L.) Pers.

1) Woolwich near Dock. 1934. PHC. Plumstead Marshes, 1934, Lrag & Miss Spratt MNE: = N. of Abbey Wood, 1953, 1954, G.M. Brown MNE.

2) Sheerness, 1964, Mrs. Hewson, plentiful on waste ground.

6) Longfield tip, DMcC, 1956 MNE.

†**Cynodon incompletus** Nees²³⁶

Shoddy alien: 4) Sandwich, 1956, DMcC.

Spartina Schreb.²³⁷

S. maritima (Curt.) Fernald]

²³¹ Given as *Diplachne fusca* (L.) Beauv.

²³² Cited as (All.) Link ex Vign.

²³³ Placed after *Digitaria*. No 'introduced' symbol (†) given.

²³⁴ Cited as L. and placed after *Setaria*.

²³⁵ In manuscript, follows *Spartina*. No 'introduced' symbol (†) given.

²³⁶ Given as *C. hirsutus* Stent. In the manuscript.

²³⁷ Follows *Nardus* in the manuscript.

2) St Marys Bay, St Mary Hoo, rare, 1958, **MNE**. Shellness! JEL: 1946-1960 **MNE**. Harty Ferry, Fl. Fav; 1945 **MNE**. E. Harty Marshes, 1946 **MNE**. W. Harty Marshes, 1947. Windmill Creek, E end of Elmley, 1949. Nagden Marshes, 1924, CES, BEC rep. 1924: 1949! et seq. 1945-1960 **MNE**. W. side Oare Creek, REW.

3) Whitstable, RGW.

S. alterniflora x maritima = S. x townsendii H. & J. Groves²³⁸

Native. Salt marshes, now abundant. This allotetraploid hybrid appears to have arisen naturally in this country in Southampton Water. It is an aggressive colonist of mud flats and even of the lower *Aster* saltmarshes. It is not easy to separate natural and planted localities; it is often planted now to consolidate mud flats prior to reclamation. App[ear]ed 1870 in Brit[ain]. 1.st record for 15: for 16. Now common on the Essex coast.

2) Longreach Dartford, mudbank by R. Thames, Mrs. AG Side: 1962! Egypt Bay 1950. St Marys Bay 1958. E of AllHallows, 1946 **MNE**. Grain N coast 1948, 856756-893758: SE Coast 1946. Hoo Marshes. E of Frindsbury to Upnor. W. of All Hallows, 1954. Harty **MNE**. Elmley. Shellness, 1938 JEL, 1946-62 **MNE**. Stone / Gravesden, (fertile) 1962 HAS. Shorne Marshes W of Fort, 1961, 695748, HMP. Higham Marshes (fertile), PCH. Seasalter (Sportsman) 1946. Graveney 1946 **MNE**. Nagden 1946. Faversham Creek. Saltings, Funton Creek, '62. Cuxton Saltings, 1943-62 **MNE**. Borstal Saltings. Temple Marsh, Strood, rare, 1954 Fowey I[sland], EGP. Conyer, KDR.

3) W of Whitstable. Mouth of Swalecliffe Brook, 1950.

4) 61/36 Pegwell Bay. E. of Reculvers 1946. Saltings of Stour, Shellness to Richborough. Saltings, below Sandwich, 61/35, 1961, Miss B Nash.

15) Littlestone, 1902, ex Hb. Lady Davy, in Hb. ND Simpson. Saltings, South Brooks 1935 J.P.M.B., BEC 1935, p.46; 1947, JHL.

Tragus racemosus (L.) All,
Wrotham, D.McClintock, 1960.

†**Panicum** L.²³⁹

P. schinzii Hack.²⁴⁰

7) Cobham Fm, Lenham, in Buckwheat, 1950, DMCC.

†**P. capillare** L.

11) Edenbridge, G. Talbot, BEC Rep. 1922, p.752. Addington, DMCC, 1947: 1947! Det. J.E.L. 1950! **MNE**.

†**P. miliaceum** L.

1) Bromley 1939 H. Newey. B[ritish] O[il] [and] C[ake] M[ills] Erith, DMCC, 1956. Beckenham, A.E.D., 1934 **MNE**. E. Wickham tip DMCC. Green Street Green (Farnborough) 1938, D.Mc.C. **MNE**.

2) Snodland, 1955 MNE.

6) Longfield tip, 1956, DMCC MNE,

9) Pegwell Bay Cliffsend, 1958 LRAG MNE.

10) Sevenoaks tip DMCC.

11) Yalding Rubbish tip, 1961, CAS.

12) Deanery Canterbury MEM. Stadium C[anter]bury MEM.

13) Dunorlan T[unbridge] W[ells] CAS.

Echinochloa [P.]Beauv.²⁴¹

E. crus-galli (L.) [P.] Beauv.

1) Hayes gravel pit, 1915, AED **MNE**. 1934, DMCC.

2) By Canal E. of Gravesend, 1945. Motney Hill, Rainham, DMCC 1951.

6) Allotments, Stone, HMP. Longfield tip, 1956, DMCC, **MNE**. Tip in Greenhithe pits, 1965, J.R. Palmer.

8) Walmer allotments, 1959, BN.

11) Bracken Hill Platt, 1949, DMCC. Boro[ugh] Green DMCC '48.

12) Goldwell qy, 64 ES. Chylmington quarry ES.

²³⁸ Given thus, but most of these records must be of *Spartina anglica*.

²³⁹ Placed after *Dactyloctenium*,

²⁴⁰ Given after *P. capillare* and named as *P. laevifolium* Haeck.

²⁴¹ Follows *Cynodon* in the manuscript.

†**E. frumentacea** [Link]

6) tip in pit, Greenhithe, 1965, J.R. Palmer.

Setaria {P.} Beauv.²⁴²

S. pumila (Poir.) Schult.²⁴³

1) Beckenham, A.E.D., 1934 **MNE**. Shortlands, 1897, 1900, Dr D.T. Playfair. Green Street Green, Farnborough, 1938, DMcC **MNE**.

4) Carrot f[iel]d, Stodmarsh, MEM. Beet f[iel]d, Ebbsfleet MEM.

6) Broomhill, Strood, G.C.P. Bush Rd, Cuxton, GCP.

8) Denton, garden, Miss D.A.C. L., 1958 **MNE**. Ottinge, Elham, 1940, EH Solly.

S. verticillata (L.) P. Beauv.

1) Eltham FF.

6) Longfield Dump, DMcC. Wickham (Strood) F.F.

S. viridis (L.) [P.] Beauv.

1) Woolwich Common, 1926, CH Grinling **MNE**. Beckenham, AE Davis 1934 **MNE**. S. of Farningham Wood 1947 DMcC. Green Street Green, 1938 DMcC.

4) Walmer, Miss Schon & Miss B. Nash, 1960, **MNE**.

6) Longfield Dump DMcC.

8) Walmer, 1960, BN. Ottinge, Elham, 1936 EH Solly.

10) Sevenoaks tip, B[at] & Ball CAS.

11) East Malling, JHL. Allotments close to Tonbridge Castle, 1950, KEB.

12) Deanery G[ar]d[e]n Canterbury MEM.

var. **weissmanii** Sturry DMcC.

S. italica (L.) [P.] Beauv.

1) Green Street Green, Farnborough, 1938, D.McC, **MNE**. E Wickham tip, DMcC.

6) Longfield tip, 1956, D.McC., **MNE**.

11) Yalding rubbish tip, 1961, CAS.

Digitaria Haller²⁴⁴

†**D. ischaemum** (Schreb. ex Schweigg.) Muhl.²⁴⁵

†**D. didactyla** Willd.

1) Stonehill Green, shoddy, 1948 DMcC, det. CEH.

†**D. sanguinalis** (L.) Scop.

1) Chislehurst; Bickley, DMcC (BEC (1937) 516).

8) (Garden of Miss Hutchence Elmer's End) Lyminge, 1955-56, Miss D.A.C. Long.

11) Addington, in arable, 1950, **MNE**.

16) Garden weed, Folkestone Lees, 1957, F. Clarke, Hb. DPY.

†**Sorghum halpense**

6) tip in pit, Greenhithe, 1965, J.R. Palmer.

Zea L.²⁴⁶

Z. mays L.

10) Sevenoaks Dump, DMcC, '51.

13) Several plants, edge of Matfield Green, 1953, K.E.B.

²⁴² Follows *Panicum* in the manuscript. Given in order *S. viridis*, *verticillata*, *lutescens*, *italica*.

²⁴³ Given as *S. lutescens* (Weigel) Hubbard.

²⁴⁴ Cited as P.C. Fabr.

²⁴⁵ Cited as (Schreb.) Muhl. and no entry given.

²⁴⁶ Placed after *Chloris*.

Sparganium L.²⁴⁷**S. erectum** L. 15, 16 9/51 [Branched Bur-reed]**subsp. erectum**

Native. Streambanks, ponds and ditches, in fresh base-rich water: widespread but only locally common: the distribution of the segregate, however, is incompletely known.

- 1) By small Pond on Keston Common, 1961, H.A.S.
 2) 57 Dartford Marshes, 543772 & 541761, '62. 57
 4) 26 Marshside, Chislet, 1962 **MNE**. 36 Minster Marshes, 1963. 26, 35
 6E) 77 Pond, Northward Hill, High Halstow, 1958 **MNE**. 77
 11) Medway, above and below Tonbridge CAS. 84 Pond at Leighbridge Headcorn 813454, '62. 84 Beult S. of Headcorn Ch[urch], 831440, '62. 84 Pond ¼ m SE of Smarden 879417, '62. 84
 12) Ashford JG.
 14) 82 Pond, Palstre Court, 1½ m W. of Wittersham, Oxney, 1958 **MNE**. 02 Brenzett; New Romney.
 15) 93 Shirley Moor, near B.2080, 1945 **MNE**. 92 Appledore, dike near Station, 1959 **MNE**. 82, 93, 92, 02

S. erectum L (agg.)

* Bronze Age, Roman: fruit stone, Crossness, Spurrell, 1889, Reid, 1899.

- 1) Elmers End, Beckenham, 1915 AGD **MNE**. Shooters Hill, GMB. Ruxley Pits, S&S. R. Cray, N. Cray PCH.
 2) Erith Marshes, PCH. Birling Common, 1943 **MNE**. High Halstow 1958 **MNE**. (Sheppey AGD, 1918 **MNE**.)
 Ripney Hill Fm, 942735, O.D. 86 stream, Lower Halstow, 1962. Waystreet Fm Hernhill, HMW. Luddenham Marshes, HMW. 46, 76, 86, 96, 06, 47, 57, 67, 77, 87, 97
 3) pond, Denstroude, 093608, H.M.W.
 4) Grove Ferry. Stodmarsh, 1955 **MNE**. 36 Minster Marshes 1963. Hacklinge. W. of Brooksend, Birchington, 1947, LWW. Wenderton dikes, B.N. Westbere Marshes, 1965, MEM. 25, 35, 16, 26, 36
 10) 45, 55, 56
 11) Barming 1895: Maidstone 1888 **MNE**. N. of Marden 1948 **MNE**. ½ m W. of Marden 1956 **MNE**. SW of Headcorn 1960 **MNE**. Kiln Wood Pond, Lenham, 1962. Addington Place DMCC. 44, 54, 64, 74, 84, 65, 75, 85, 66
 12) Gibbons Brook, Mrs MJ Comyn 94, 04, 95, 05, 15
 13) 63 Ditch S. of Lamberhurst church, 1960, CAS, 684365. Dunorlan, CAS. Bayham CAS. 53, 63, 73, 83
 14) Beals Fm Ponds, Redbrook St, Woodchurch, HW Adams. Palstre Court, Wittersham, 1958, **MNE**. 01, 72, 82, 92, 02, 93, 03, 13, X
 15) Shirley Moor, by B.2080 1945 **MNE**. Appledore by Station 1959 **MNE**.

(sspp. **oocarpum** and **microcarpum** have not yet been recorded in Kent.)

subsp. neglectum (Beeby) [K. Richt.]²⁴⁸ 15, 16 20/51

Native. Streamsides, ponds, swamps and ditches: common in such habitats, but segregate distribution probably not fully worked out.

- 2) 67 Northfleet. 77 S. of Cliffe. 76 Holborough Marshes. 65 Lunsford. 06 Faversham Ponds. 77 Higham. 77 Cooling. 76 Birling Common 1943 **MNE**. 86, Stream, L[owe]r Halstow 857669. 57 Ditch by Cray below Crayford, 1944. 76, 86, 57, 67, 77
 4) 26 Stodmarsh, 1955 **MNE**. 35 Dike W. of St Georges Club House, Sandwich Bay, 1963. 26, 35
 10) Stream, Westerham, 441536, 1955, DPY. 57 Darenth.
 11) 44 Edenbridge, E.S. Salmon. 74 N. of Marden, 1948 **MNE**. 74 ½ m W. of Marden, by Teise, 1956 **MNE**. 54 Pond, Hildenborough, ESM. Medway, above and below Tonbridge, CAS. 74 Beult, Cross at Hand. Staplehurst 1963. 74 Beult E of Staplehurst 1963, 74 Pond W. of Staplehurst 1963. 84 R. Beult / Moatenden, Headcorn. 84 Sherway, Headcorn. 74 E of Marden 1963. 54 W & E of Tonbridge. 54 Leigh. 64 Beltring. 74 Yalding. 54 W. of Penshurst. 54 N of Penshurst. 84 S. of Smarden. 84 Pond by River ½ m SE of Golden Square, Smarden, '62, 886411. 93 Beult E of Buckhall, Betersden, 1962, 917397. 849437, 1m E of Headcorn in Pond 1962. Near Brook Wood, SW of Headcorn, 1960 **MNE**.
 12) 94 Pond W. of Hothfield Common. 04 Ashford, ESM. 04 Willesborough Lees ESM. 03 E. Stour near Sellindge, ESM.
 13) 54 Pond N. of Penshurst. 54 South Park Lake, Penshurst, 1962. 54 Pond ½ m N. of Penshurst, 1955.

²⁴⁷ Follows *Wolffia* in manuscript.

²⁴⁸ Cited in manuscript as (Beeby) Schinz. & Thell.

15) Shirley Moor, N. of B.2080, 1965.

45, 44, 54, 65, 64, 85, 84, 82, 94, 93, 04, 03

S. emersum Rehm. (**S. simplex** Huds. pro parte)

[Unbranched Bur-reed]

2) Greenhithe, 1860 **MNE**. Snodland Brook, 1870 **MNE**. 06 Nagden Marshes, C.T.

06

4) 35 Hacklinge Fen, 1946 **MNE**. 35 Worth Minnis. 16 Fordwich Marshes 1949 E. Robinson; 1963 MEM. West Bere Marshes, 1965, MEM. Littlebourne, by river, Mrs B. 25 Fen, Lit[tle] Britton, N of Wingham, 1960 **MNE**. 26 Preston Marshes. W of Birchington/ Brooksend, 1947, L.W.W.

25, 35, 16, 26

10) 45 Pond N of Westerham, RAC, 1958. Marsh near Brasted Ch[urch], RAC, 1960.

45, 57

11) Medway below Maidstone, 1897, H. Lamb **MNE**. 54 Medway, above Tonbridge, CAS. 74 Ditch by B.2162, N. of Collier St[reet], Yalding. Bubhurst, Frittenden, RAC. 84 R. Shreway, Headcorn, 1944. 94 New Ho[use] Fm, Pluckley, V.F.P.D.

54, 74, 84

12) 03 Mersham Mill, E.S. 04 Stour. 94 Stour.

13) 63 Ditch S. of Lamberhurst Ch[urch], 1937, JRW: 1956! **MNE**. 53 Groombridge Park (vc.16) G.E. Shaw.

94, 53, 63, 04, 05, 15

15) 83 Ditch by Windmill Channel, 867305, E. of Rolvenden Layne 1959.

83, 93

S. natans L.²⁴⁹

15

1/51

[Least Bur-reed]

Native. Dikes in calcareous fens: very rare, but still locally abundant between Worth and Hacklinge: a relic of the flora of the primaeval fens of this area.

4) Fen dike, Worth Minnis, 1950-1960 **MNE**. Dike, ½ m E. of Hacklinge, 1960, **MNE**.

Typha L.

T. latifolia L.

15, 16

50/51

Greater Reed-Mace

Native. Ponds, streamsides, swamps, and ditches: common in these habitats and occurring in all districts except 5), 7) and 9), but (naturally) rare in 6) and 8).

1) Ruxley pits, S&S.Pond S. of Joydens Wood, PCH.

36, 46

2) Plumstead Marshes, 1944. Northfleet Brooks, 1944. Dartford Marshes (Longreach) PCH. Snodland S. Marshes, 1944. Tonge Pond, J.M. 96 Luddenham Marshes, H.M.W. Oare Meadow and Pond HMW. Pits E of Oare Creek, HMW. 06 Seasalter HMW.

76, 86, 96, 06, 47, 57, 67, 77, 87, 97

3) Denstroude, Pond, 093608, HMW.

4) Hacklinge Marshes. West Bere Marshes MEM.

25, 35, 16, 26, 36

5) Pond, Downe village, 1960, FHB.

6) Marshy chalk pit SW of Cliffe, 1963. 6G) Northward Hill, 1958.

8) Dour, River, KDR.

24, 34

10) Noahs Ark, Kemsing. Greatness Moors RAC. St Johns Jerusalem PCH. Pond, Westerham Wood, '82. Dartford Mill pond.

45, 55, 56

11) Pond on Gault, W of Ryarsh Wood, Trottiscliffe. Pond E of Hale St[reet], CAS. 886414, Pond E. of Golden Sq[uare] Smarden '62. 849437, Pond E of Headcorn '62. Pluckley Brickworks ES. New H[ou]s[e] Fm Pluckley VFPD.

44, 54, 64, 74, 84, 65, 75, 85, 66

12) N of Brabourne RAC. Hothfield Common. Stowting Marshes ES. Mersham le Hatch CNP. Pond, Westwell, CNP. New Lake E of Chilham ES.

94, 04, 14, 95, 05, 15

13) Lake, South Park, Penshurst '62. Southborough Common, SW pond HNC. Bayham CAS. Boggy Wood SW of Pembury, 614395 PCH.

53, 63, 73

15) Romney Warren.

72, 01, 82, 92, 02, 83, 93, 03, 13, 23

16) Gault ponds, Folkestone Warren, '65, BN.

T. angustifolia L.

15, 16

28/51

Lesser Reed-Mace

Native. Ponds, swamps, and ditches, in base-rich fresh or brackish water: locally common in 2), 4), 15), and on the Weald Clay in 11) and 12): rare in 1), 6), 10) and 13): unrecorded in 3), 5), 9), 14) and 16).

1) Ruxley pits, GMB; S&S.

46

2) N. of Abbey Wood. Dartford Marshes (Longreach) PCH. Shorne Marshes. Warden, Sheppey, 1917, AGD **MNE**. Higham Marshes, 1956, PCH **MNE**. Grain, 870752, DMCC. East church Marshes 1917 AGD **MNE**. Cliffe Marshes '62 HAS. St Marys Hoo Marshes. Snodland S. Marshes. Holborough Marshes, '63 EGP. Luddenham Marshes, HMW. Oare Marshes, C.T. Pits E of Oare Creek.

86, 96, 06, 57, 77, 87, 97

²⁴⁹ In the manuscript, **S. minimum** Wallr.

- 4) 96 Ditches N of Stuart, St. Nicholas, 270686, '62. E of Reculver 1947 DHK. Westbere Marshes, MEM, '65. Ham Fen 1991. 36 Minster Marshes, 1963. 35, 26, 36
- 6) Marshy chalk pit, SW of Cliffe 63.
- 10) Greatness moors RAC. 55
- 11) Edenbridge, A. Beadell. Pluckley Brickworks ES. Hartlake Bridge, JRW, 1943. 44, 54, 64, 74, 84, 65
- 12) Eastwell Lake ES. 94, 04, 14
- 13) Penshurst Place.
- 15) Shirley Moor. Brezett. Hoppen Pits, Dungeness, 1952 **MNE**. Ditch by R[oyal] M[ilitary] C[anal], Appledore, 958294, 1962 HMP. Palmarsh, F. & F.A.Swain. Dymchurch. 01, 92, 02, 83, 93, 03, 13
-

LILIACEAE²⁵⁰

Narthecium Huds.

N. ossifragum (L.) Huds. 15, 16 Bog Asphodel 3/51

Native. Valley bogs and wet-heath: very rare, but very abundant locally at Hothfield Common; elsewhere now only at Keston Bog and Hawkenbury. Still locally common on bogs and greensand heath in W Sussex and in E. Sussex on Ashdown Forest: unknown in Essex, and long extinct in Pas de Calais.

* 1746: Bogs nr. Caesars Camp, Bromley, *Blackstone*, p.72.

- 1) Bog, Keston Common, A.G. Davis 1915 **MNE**: 1944-62! **MNE** →1990!
- 12) Hothfield Common, GES in FGEK; abund[ant] in Valley bogs II, also in III and IV; H. Lamb, 1900-01 **MNE**; 1943-62 **MNE** →1996!
- 13) [small bog S. of Hawkenbury, JRW, 1942; 1946!; CAS, 1957; 1963, R.E.Sh.; by now destroyed, 1994.] [Kilndown Wood, J. Stirling, 1896, **TLS**; not refound though searched for thoroughly.]

†**Hemerocallis** L.

†**H. fulva** (L.) L.

- 1) Ruxley pits, S&S.

Convallaria L.

C. majalis L. 15, 16 Lily of the Valley 16/51

Native. Dry woodlands, particularly of sessile oak, on light acid soils: on Eocene sands and gravels in 1), 3) and 6E), on Pliocene sands in 8), on lower Greensand in 10), 11) and 12), and on Tunbridge Wells Sand in 13); widespread but only locally frequent; but locally dominant in the field layer in many woods in 1), 3), 6E) and 11). Much rarer in Surrey, Sussex and Essex: locally frequent in Pas de Calais.

- 1) [Sydenham, J. Britten, Phyt. N.S. VI, 1863, p.592.] [Abbey Wood, 1870, Hb. Lamb **MNE**.] 46 Spring Park Wood. 46 In the drier shaded part of the valley bog, Keston Common, 1948. 57 Joydens Wood, 1945-64 **MNE**. 46 Holwood Park, 1949 **MNE**. 56 Farningham Wood, 1945. 56 Ram Wood, E of Old Swanley, 1951. 47 Chislehurst, in wood in grounds of S.I.R.A. [British Scientific Instrument Research Association], apparently a native relic. 47 Sessile oak Wood W. of Elmstead Lane, on pebble beds, abund[ant], 1965.

47, 46, 45, 57, 56, 67, 66, 65, 64, 73, 85, 99, 05, 16, 15, 14

- 3) 16 Blean Rifle Range, REW. 15 Bigbery Wood, 1951 **MNE**. 15 Trenley Park Wood, 1950-. 15 Brotherhood Wood. 05 Joan Beech Wood. 16 Thornden Wood. 15 Church Wood, D. Stanier, REW. 15 Just E of stream, Oldridge Wood, 1950, **MNE** REW: a[bundant] 1956, R. Gorer. 15 Homestall Wood, REW.
- 6) E) 57 Darenth Wood, 1945-60 **MNE**. 67 Randall Wood, Shorne, 1949. Cobham Park, 685691, D.V. Woods. Holly Hill 668629, wood on Blackheath Beds, 1962 **MNE**.
- 8) 14 West Wood, Stowting, on Pliocene sands and to E: 1947-62 **MNE**. Whitehall Wood, E. Robinson. Alk Wood, Garlinge Green, petham, 1964, ES.
- 10) 45 Brasted Chart, probably an escape, 1957, RAC.
- 11) 65Mereworth Woods. 65 Valley Wood, S. of Wrotham Heath, 1956 **MNE**. 65 Wood E. of Church, Offham. 65 Platt Woods. Harrietsham. 85 Kings Wood, Ulcombe, 1883, H. Lamb **MNE**; 1950! **MNE**. 85 Kings Wood, Langley, 816515, 1959, 1960 Mrs. B. Dodds **MNE**.
- 12) 94 Ashford Warren, E. Scott: 1954!

²⁵⁰ The sequencing of Liliaceae here is as given in Stace (1997), on the basis that Francis Rose had begun revisions which might have been expected to bring the various species ordered in accordance with that sequencing. But the manuscript treats Liliaceae, beginning with *Narthecium*, as starting after Zannichelliaceae, and has a narrower concept of Liliaceae (so separating out some species under Amaryllidaceae, so as to follow *Luzula*).

13) [Tun[bridge] Wells, WWR, **TLS.**] 64 Wood, Pembury Walks, on T[unbridge] W[ells] S[and] nr Rd, 1961, CAS. 73 S. end Angley Wood, 1956, D. Streeter: 1957! **MNE.** S of Milfield. Glassenbury Wood / Chittenden Wood: A.W. Hudson. †Naturalised, Stone Cross Gill, Ashurst, 518381, 1960, CAS.
(16) †Naturalised at Brockhill LJM.)

Polygonatum Mill.

† **P. odoratum** (Mill.) Druce Alien in Kent.

[1] Reported at Joydens Wood in Hooker, Fl. Lond., Fl. K.: evidently an error, or confusion of nomenclature. I suspect that *Convallaria* was intended!]

13) Naturalised in planted woodland, Capel Place, Horsmonden, 1946.

P. multiflorum (L.) All. 15, 16 Solomon's Seal 15/51

Native. Dry woodlands, mainly on sands and gravels: widespread and certainly native in old woodlands on the Eocene sands and gravels (especially the Blackheath Pebble Beds) in N. Kent, in 1), 6) and 3), and also on Pliocene and other sandy drift soils, and the chalk in 8): less certainly native, thought probably so, in 10) and 7). Only naturalised in 13), the plants appear to be of hybrid origin at least at Lamberhurst. As a native, very rare in Surrey and confined to the extreme west in Sussex: extinct in Essex (formerly in Epping Forest), abundant in woods on a range of soils in Pas de Calais.

1) 46 On Black[heath] B[eds] nr stream, Petts Wood, 1954 **MNE.** 46 On Black[heath] B[eds], Hockendell Wood, E. of St Mary Cray, 1954 **MNE.** 56 Thanet Sand, Farningham Wood, 538682, 1949-56 **MNE** 1982! 57 On Black[heath] B[eds], Joydens Wood, 1946 **MNE.** 57 Wood, E. of Bexley, PCH. 47 S.I.R.A., Chislehurst, 1957. Black[heath] B[eds], Ram Wood, E. of Swanley Village, 1951-53 **MNE.** 46 Ravensbourne, Keston, A.G. Davis, 1912 **MNE**; 1955! 8 loc[ation]s in 1). 56, 46, 47, 57

3) 05 Hunstead Wood, Chartham Hatch, 1956-1965 **MNE.** 15 Brotherhood Wood, 1947 Miss DACL. 15 Fishpool Hall Wood, RE Wood, 1950. [Hales Place Wood, 1948, Miss DACL – since destroyed.] 3 [locations] in 3) 05, 15

6) 57 On Black[heath] Beds, Darenth Wood, F.J. Epps. 1 [location] in 6).

7) 75 By old lane up downs, 794588, on chalk, Detling, Coombe to N.W., 1944: 1957, HMW. Chalk Wood, Cades, Whitehill, REW. 76 Wood nr Westfield Sole, on loam over chalk, E. Philp. 75, 76

8) 13 Postling Wood, on sandy drift, 1954! **MNE.** 24 Walderchain Wood, 1953 Alan Clough: 1955, Miss DAC Long. 24 Garratt Wood, Wickham Bushes, Lydden, JG: on chalk, 1956, DACL. 34 Napchester Wood on chalk, Miss B. Nash: 1959! **MNE.** 24 Winterage Wood, 200412, Acrise, Miss DACL, 1963. 14 Garden Wood, Acrise, Miss D.A.C.L., 1963. 6 [locations] in 8). 13, 14, 24, 34

10) 45 Parson's Marsh, Brasted Chart, on Hythe Beds chert, 1958, P.A. Hitch & FR. † 505556, copse N. of Bessels Green, 1955 FSEF. † 512555, by stream Montrea Park, 1955, FSEF. 45

12) 05 on alluvial gravels, Shalmsford St[ation], alder wood by Stour, 2m NE of Chilham.

13) † By stream, Ashurst, 1940, Hon. Mrs Nightingale, comm.. AHWD, BEC Rep. 1939-40, p.296; naturalised, Stone Cross, Ashurst, 513381, 1960, CAS. † Naturalised by track N. of Lamberhurst Quarter, 1944, JRW & FR. † Garden outcast, W. end Tun[bridge] Wells Common, 1962, CAS.

16) 13 Asholt Wood, R.E. Wood, on Gault. 05, 13

(Maiathemum Weber

M. bifolium (L.) Schmidt

It formerly occurred in Ken Wood, Middlesex, where it may have been native. This Continental species is abundant in dry, acid woodlands in the more inland parts of the Pas de Calais and Nord departments.

13) Naturalised in the grounds of Scotney Castle, Lamberhurst, teste K.E. Bull.)

Paris L.²⁵¹

P. quadrifolia L. 15,16 Herb Paris 24/51

Native. Woodlands on moist base-rich or calcareous soils: very common in coppice on moisture-retaining loams derived from the chalk, over the greater part of districts 7) and 8), though apparently absent in 8) NE of the line L[ower] Hardres – Womens wold – Barfreston – Waldershare – Dover, and in 7) E. of the line Milsted – Doddington – Stalisfield. Unrecorded in 5); in 6) only near Halling. Frequent and characteristic of coppice-woods on the Gault belt from Westerham in 10) across 11) and 12) to Postling Wents in 16). In eighty ash-elm

²⁵¹ In the manuscript, this entry follows that for *Colchicum*.

woods on the ragstone between Plaxtol and Elmstone Hole in 11): on Folkestone Sand at Sandling 11), and on Sandgate Beds at Kiln Wood, Lenham and Park Wood, Smeeth. Very rare and possibly now destroyed on the Thanet Sand in 7), still in 5 locations on this formation in 3): in the Weald only at Hawkhurst on calcareous Wadhurst Clay in 14), absent elsewhere. Probably commoner on the E Kent chalk area than elsewhere in Britain. It is very rare in Surrey (nearly confined to the extreme east) and has one E. Sussex [location] and a few West Sussex ones. Rare in Essex (except in the north on Boulder clay; abundant in N. France. Its rarity on the chalk of West Kent is at first sight strange, but the cause may be climatic: there may be an association between the wetter climate of the East Kent chalk country and the development of the deeper, moisture-retentive calcareous loams that *Paris* seems to require; other species (*Allium ursinum*, ..., *Stellaria*, *Angelica*) show a similar pattern.

1) 439663, High Wood, Crofton, WCRW, 3 infl[orescences] LFB C. Swain, 1957! **MNE**, now destroyed. 462679, Broom Wood, St Mary Cray, WCRW. 432647, ...Ninians²⁵² Wood, Locks Bottom, WCRW. **46**

3) 15 Oldridge Wood, LWW, 1950. 15 Trenley Park Wood, NE end, 1949 **MNE**; SE of Rd, REW. 16 Calcott Hill, 175620, Jane Hyde. 16 Dengrove Wood, 1955. West Blean Wood, E.P. **15, 16**

5) no records

6) SE of Cooling, E.P. 66 Bavins Shaw, Bush Valley, Halling, abundant, PCH. 76 Tunbury Wood 1955 **MNE**. 76 S. of Bredhurst Ch[urch], 1961, 797616.

76 Westfield Wood. 86 Bredhurst Hurst 1944 **MNE**. 76 Wigmore, 1944. 75 N. of Detling 1942. 96 Cromer Wood, N of Milsted, 907604, J. Felton. 85 Wood S of 3 Squirrels [pub], 1958, 840605 **MNE**. 85 Longton Wood, 827597. Squirrels Wood, 45. Lords Wood, BC. Hempstead, BC. Monkdown Wood, BC. 85 Hucking, NW of Pond Fm, 838593. SE of Rumsted Court, 842595. 85 Wood in valley W. of Worms hill, 1943, 875575 & to SW, 871569. 85 Trundle Wood, Milsted, 1956 **MNE**, 888586. 95 Wrinsted Wood, Wichling, 901553, 1958 **MNE**. 95 Filmer Wood 925558. 95 Oaken pole Wood, 922546. 95 coppice ½ m N of Ch[urch], Stalisfield, 970531. 95 coppice ½ m E of Ch[urch], Stalisfield, 971518. 95 Wichling Wood 909555 **MNE**. 95 W. of Payden St, 916542. 95 Spuckles Wood, Stalisfield, 960525. 95 Kennelling Wood, Stalisfield, 956520. **85, 95, 66, 76, 86, 96 (also 05)**

8) Wood SE of Longport, Crundale, 075483, 1955 **MNE**. The Junipers, Wye, 067474, PCH.; FR 42-55 **MNE**. SW of Podlinge 109467 DR Glendenning 1953. E of Grandacre Fm 104474. 04 Wood W. of Big Coombe Fm, 076463. 04 Hurst Wood, 085465. 04 Fanscombe Wood, 076473 & 082476. 04 SE of Crundale Ch[urch], 090475. 04 N of Hassell St, Park Wood, 091471, ES. 14 Wood N. of Bavinge Farm, Hastingleigh 62, 104469. 14 Copse SW of Hastingleigh Ch[urch], ES, 100444, 099444. 24 Wood E. of Acrise Rectory, 204428. 14 (ch[al]k) Hunts Wood, Upper Hardres 147498, '62 **MNE**. Copse, N of Bossingham, 148495, 62. 24 (ch[al]k) Reinden Wood, Hawkinge, 221417, etc. 62. Spong Wood, RAC. 15 Burstard Wood, 163505. 14 Atchester Wood, 162485, 1961. 14 Elham Park, 155457 on Pliocene. Denge Wood 106515. Waddenhall, SE of Petham, 125493, 128493, 1956 **MNE**. 15 Iffin Wood, Petham, 137535, 1959 **MNE**. 14 Yockletts Bank, 1962, D. Cattlin, 127473. 14NW of Maxted Street, Elmsted, 126450. Winterage Wood / Garden Wood, Acrise, DACL. 14 Coombe Wood Stowting, 1954 **MNE** – 1972! 115423. 14 Sibton Wood, 143424, 1956 **MNE**. W. of Woodlands, 144413, '56, **MNE**. 14 Blacklands Carvet N of Woodlands, 147417, '50. 14 N. of Postling Wood, 146402. 14 Clavertye Wood 165453, 164455, **MNE** 1954. 14 NE end Elham Park Wood, 171469. 14 Coppice Lynsore Bottom, 159472, 1939-. 14 Copse E of Wingmore, 193467, 1955, **MNE**. Lords Wood, T[emple] Ewell HMW. 24 Swanton Banks, 252447. 24 Lit[tle] London, 255447. 24 Hall Wood, Swingfield, 233431, 1962. 24 E. of Swingfield, 236434, 1955. 24 North Court, Swingfield, 243440, 1955. 24 Copse (ch[al]k) S of S. Alkham 251415, 1962. 24 Woolwich Wood, 232485 & 236487.²⁵³ 34 2 copses N. of Lit[tle] America WAdershare, 303480 & 305481, 1954 **MNE**. 24 NW of Drellingore, 237415. 24 Sladden Wood, Alkham, 258428, '55 **MNE**. NW of Wolverton, 263431, 55 **MNE**. 24 SE of Chilton, 280431. 24 S. of Chilton 277427. 24 Coombe Vale, W of Dover, 286417, '55 **MNE**. (ch[al]k) Puckland Wood, Sibertswold, 62. 24 Frandham Wood KDR. Reinden Wood. 24 Elms Wood, Hougham, 286415, '55. 24 SW of Chilveton Elms 277405. 24 E of Hougham, 257403. 23 Lady Wood, Capel, 236393 & 238390, **MNE** 1959. 23 S. of Hawkinge, 217393, 1960. **04, 14, 24, 34, 23, 15, abs[ent]25.**

10) 45 Westerham Wood, 445553. Gault copse SW of Chevening (S. of Combe Bank Fm), EP. 55 Copse S. of Kemsing, 563585. **45**

11) 65 Lit[tle] Wrotham 54 **MNE**. 65 Boot Wood Plaxtol 54 **MNE**. 65 Swanton Valley, 640537, 1960, **MNE** & copse to E, 1962. 65 S of Mereworth, in damp Frax[inus] copp[ice] 655534 & 655530 **MNE**. 65 S. of Pizien Well, 672523. 75 Quarry Wood, W. Farleigh, **MNE**, 1957, 717521. 84 Elmstone Hole, 868497, coppice on basic loam, 1955, **MNE**. 85 Kiln Wood, Lenham, in Alder carr, '62. 85 Wood N/ of Templetree, Harrietsham, 875523, Mrs B. Dodds. 66 Ryarsh Wood **MNE**, 1923 ASK; 1946. 75 Sandling Wood, 1955 **MNE**. 75 Park Wood, Boxley,

²⁵² Presumably Ninehams Wood.

²⁵³ Annotations of '(ch[al]k)' and '**MNE**' belong either to this entry or the next.

779580, 1956 **MNE**. 75 Horish Wood, 784575. 75 Palace Wood, G. Morgan. 85 Snarkhurst Wood, Hollingbourne, 1944 **MNE**. SE of Boxley, 7858, EP. 55, 65, 75, 84

12) 95 Gault: S. of E. Lenham, 906515 & 909512, 1944 **MNE**. [95 Cobham Wood, 924507, G.L. Davidson (wood destroyed).] 94 Wood E of Westwell Leacon, 966477, E.S. 94 Westwell, by springs, ES. Copse, 109406 Water Fm, Stowting, ES. SW of Weswell Leacon, 9547, E.P. 04 N. of Wye Station, 047476 & 048479, JHPS. 04 Wood E of Nackholt Wood 074427 ES. 04 Wood 073434, SW of Beddlestone, ES. 04 Troy Town (Wood to N.E.) 075442, ES. 04 Cadmans Wood, 082432. 03 Park Wood, Smeeth, 073384, E.S. 14 Stowing, by stream, 122413, 1954 **MNE**. 94, 03

14) 73 Copse, Ockley, Hawkhurst, 1954, on calc[areous] flush (on Wadhurst Clay?) 763313, 1954, **MNE**. 73

16) 13 Gault: Postling Wents, 150377 & 152375. 13 Coombe Wood, Newington, 173391, 1960 **MNE**. 13 Asholt Wood, 175382. 13

Asparagus L.

A. officinalis L. subsp. **officinalis** 15, 16 7/51

Alien, inland: but it may well be native on coastal fixed dunes as at New Romney and Sandwich. This subspecies occurs on dunes in Sussex, and in Pas de Calais, where it is common on the dunes, and is regarded as a native by some French Botanists.

1) Ruxley pits, S&S. Ravensbourne, Bromley, 1915, AG Davis **MNE**. Dartford Heath, in scrub, 1962, HAS.

2) Escape at Upnor, 1944 **MNE**, 1949. Edge of saltings, Cuxton, 1944. Stone Marshes, 565571, 1962, HAS: HMP. Edge of Faversham Creek, 1943. W. of "Sportsman", 1960, HMW.

4) Deal Links: plentiful on fixed dunes, Sandwich Bay, H. Elgar, 1896 **MNE**: St George's: Prince's Links; Shellness 1946-62 **MNE**. First noted here by E.s.M. in Fl. K., but it may have been here for a long time. Lampen Wall, Stodmarsh, Mrs. B.

6) Stone, 1960, H.M.P.

11) Roadside of A.20; on F[olkestone] Sand, 1m W of Hollingbourne, 1943.

15) Greatstone Dunes. Romney Warren, Fl. K.: 1946.

Asphodelus L

† **A. fistulosus** L. ²⁵⁴

Alien: waste ground.

1) Beckenham, A.G. Davis, 1934 **MNE**.

1) Eltham, Mrs. Wedgewood, BEC Rep. 1921, p.400.

[**Colchicum** L. ²⁵⁵

C. autumnale L. Meadow saffron, Autumn Crocus

Alien

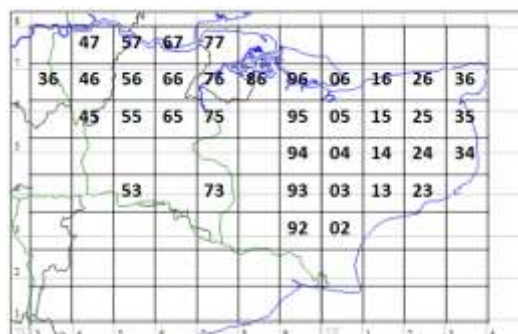
3) Swalecliffe churchyard, 1950, R.E.W.

This may have been native formerly NE of Shooters Hill in moist fields (Cooper, *Fl. Met.*, p51) but it is certainly now extinct: the other records are improbable as *native* localities (Littlebourne and Cranbrook, Fl. K., N of New Hythe F.F.) for this species whose British distribution is markedly midland to western, though it is common in Central Europe. It has been commonly cultivated in Kent gardens for a long time. In Surrey it is probably extinct, if ever native, but may still occur very rarely as a native in both E. and W. Sussex. Extinct in Essex: not uncommon *inland* in Pas de Calais and Nord, but absent near the coast.]

Ruscus L.

R. aculeatus L. 15, 16 Butcher's
Broom 36/51 (31/52 native)

Native. Dry woods, mostly of oak or beech; commonest on the Eocene Sands and gravels of N. Kent (in 1), 3) and 6E), but also frequent on the chalk and on the moderately acid soils of the Lower Greensand country: rare in the Weald, absent



²⁵⁴ This species appears twice in the manuscript, with different records for district 1), both given here.

²⁵⁵ In the manuscript, this entry follows that for *Muscari*.

from the alluvial marsh areas. Locally frequent in Surrey and Sussex, though rare in the Wealden areas: rare in Essex: very rare in Pas de Calais: Oceanic Southern.

- 1) 47 Abbey Wood, 1944. 57 Joydens Wood, 1946. 47 Shooters Hill Woods '54 GMB. 56 Farningham Wood, 1945-56; (BB) 82. 56 Rams Wood, Swanley, 1951 **MNE** (BB). 36 W. Wickham Common: CEB, 1899; 1958, PCH. 46 W side Common, Keston, 1947. Bexley Churchyard (planted?) PCH. 47, 55, 36, 46 Orp[ington], 56 Farn[borough]
2) 86 Newington 1918, A.G. Davis, **MNE**. 86 Nr. Gore, Upchurch (T[hanet] Sand) 1959. 86
3) 05 Perry Wood, Selling, DHK. 26 Copse NW of Shelving Wood, Hoath, 1962. 16 Ellenden Wood nr Pean Hill, REW. 16 Clowes Wood, PRB. 15 Brotherhood Wood, 1947. 25 Elbridge RGW. 05 Hawkins Wood, Chilham 1944; DHK 1945. 05 Iron Hill, Boughton (T[hanet] Sand) 1960 **MNE**. 06 Holly Hill, REW. 16 Thornden Wood, fairly common, P.R.B. 16 trenley Park Wood 197599 REW. 15 Church Wood Blean RGW. 16 Tyler Hill RGW. 16 Hempsall Wood REW. 16 Kingsdown P[ar]k, Whist[able], REW. 16 E. Blean Wood, REW. 16 West Blean Wood, REW. 25 Wenderton Manor, copse on Thanet S[and], BN. 26, 06, 55, 16, 65, 15 C[anter]bury, 26 Littleb[ourne]
4) (Planted by D.... Road, Sandwich 35 planted only
5) 45 Copse, Chevening Park, 1943, JRW.
6)E) 57 Darenth Wood, 578729, 1945: 1951. 57 Stone Castle, 582742, HMP. 57 Mounts Wood, 1945 **MNE**: PCH. 57 The Thrift, Bean²⁵⁶, 1945. 67 Swanscombe Wood, 1945. 77 Great Crabbles Wood, 1944-55 **MNE**. 77 Northward Hill, 1963, H.A.S. Stoneyfield Wood, Halling, PCH. 66 Horseholders Wood, 1963, PCH. 76 Cuxton Churchyard (?planted), PCH, 1943. 66, 57 Dartf[or]d, 67 G[rave]send, 77 Cliffe
7) 86 Queen Down Warren, 1962. 76 Lords Wood, BC. 86 Borden, 1946. 95 Milstead, 1946. 95 Kennaways, 1946. 94 NW of Westwell, 981485, ES. 04 By White Hill, 036492, ES. 04 Soakham, 047496, ES. 04 Godmersham, 057500, ES. 05 Kings Wood, Molash, 1946. 05 Park Wood, Chilham, 042524, ES. 05 E of Lees Park, 032555, 030556, CT. 05 E of Badlesmere, 023549, CT. 05 Chalky roadbanks, Old Wives Lees to Stone Stile Fm, 1943, DHK. Mulberry Hall, Chilham, DHK.
8) Denge Wood, nr Penny Pot, 1945. N of Pickersdean, Brook, 075453, ES. Above chalk pit, Chartham Downs, B. Dodds, 1961. E of Chilham RGW. Temple Ewell, KDR. Woodville Park, Lydden, 1948, probably planted here. Whitehill Wood, L[owe]r Hardres (ch[al]k) CC. Covert Lane, Kingston 1946 JG. Barfreton, J. Hibbard 1948. Woolwich Wood, 1965. Oxney Court Wood, B.N. Pitt Wood Adisham, CC {?} (ch[al]k). Woodville Park, Lydden, 1948; probably planted here. 04, 14 (rare), 24, 55, 34, 57→
9) (Ramsgate, Herb. Lamb, 1861 **MNE**.) 36 Thanet
10) Scords Wood, on top of Ragstone bank, 1959, RAC. 45 W[ester]ham, 55 S[even]oaks
11) Mereworth Woods, 1943. Oaken Wood, 1884, H. Lamb **MNE**: 1944. Hamlet Wood, Loose, 1947. Holt Wood 1942. Sandling Wood, 1942. 65 W[est] M[alling], 75 M[aid]stone, **NOT** 85.
12) SW of Digges Court 973475, ES. Westwell Springs 990475, ES.
13) Tunbridge Wells. 53 T[unbridge] Wells, 1956, 73 (planted), 55
14) Lords Wood (on Wadhurst Clay) ½m E of The Stocks, Stone in Oxey, 1934, ASK: 1958! **MNE**. 92, E. Oxney
(15) Planted at Old Romney.) 02, P[lanted] only
16) Aldington, 1950. 03 Aldington 57→, 13, 23.

Lilium L.

L. martagon L. 15, [16] Martagon Lily, Turk's Cap Lily

Possibly native. In woods on clay over the chalk: very rare, but known today in four natural-looking localities, and similarly recorded elsewhere in the past. On the Continent it comes no nearer than E. France; this is against it being a native of Britain.

6) Ash, "plentifully in a very wild situation" N.B. Ward, *Phyt*, III, p.300. Copse at Meopham, Beeby. "Grove at Cobham, planted?" E. de C.

7) Hoath Wood, Ospringe, Mrs. W. Verschoyle, 1948: 1948-62! **MNE**. It is extremely abundant here in coppice among *Mercurialis* on a basic clay loam. 159501, S E corner of Hayfield, E. of Manor H[ou]s[e], L[owe]r Hardres, 1953 E. Day: DACL & ED., 8 pl[ants] 1955: 20 pl[ants] 1958, DACL. 8) S. of Penny Pot, Chilham, in Wood on clay loam, 093511, H.M. Wilks: 1961! Lords' Wood, Temple Ewell, 12 in flower, H.M. Wilks, 1961: 1961! in coppice in a valley on chalk, about ¼ mile from any house or cultivation. Bourne Park, Bishopsbourne, naturalised, 1942.

Fritillaria L.

[F. meleagris L. Fritillary, Snakeshead [15, 16]

²⁵⁶ Written as Blean in error.

Possibly native formerly in alluvial meadows of the Thames and Medway Valleys; but now extinct: modern records probably refer to escapes or planted colonies.

1) Near Bromley, Curtis, c.1782: Fl.K.

2) Grassy places, Higham, Ann [sic] Pratt. Upnor, Miss Young. Wouldham Marshes, in meadow, 1 plant, J. Hepworth: c. 1930, F. Forsyth.

6) Highfield, Shoreham, R. den Halher.

7) Above Detling, H. Elgar, 1896 **MNE**.

11) nr. Trottiscliffe, W. Bridge, 1921 **MNE**.

Formerly native, now extinct, by the Thames in Surrey (Mortlake); in N France, in the Somme Valley nr. Abbeville.

Tulipa L.

† **T. sylvestris L.**

Alien, long naturalised.

[1] Chislehurst, Wollaston; Fl.K.]

6) Ash, c. 1860, Mrs. Ben. Harrison.

11) Ightham Court. Asylum Grounds, W. Malling, H. Lamb, Fl.K.; E. Bartlett 1882 **MNE**; 1944-51! **MNE**.

[13] Southborough, Blowers Hill, WWR, 1849.]

T. gesneriana (Garden Tulip) occurs as an escape at 1) Ruxley pits, S&S.

Gagea Salisb.

G. lutea (L.) Ker-Gawl.

It is doubtful if this species has ever occurred as a native in Kent, within historical times at least. The two records are without confirmation and the habitats seem very improbable.

1) West Coombe Park (Greenwich) C. Finch: *Fl.Met*.

"Dartford", Masters.

Not known as an indigenous species nearer than N. Hants (Preston Candover), though many examples of woodland on calcareous loam apparently suitable for it exist in Kent.)

Ornithogallum L.

O. umbellatum L. 15, 16 17/51 Star of Bethlehem

Alien, well naturalised in sandy fields and heathland in several places: rare. It occurs as an alien in all the adjacent counties, but may be native in the Suffolk Breckland: it is regarded as native in Pas de Calais, though rare.

1) 46 Hayes, field behind church, 1946 **MNE**.

46

3) 96 Bysing Wood, 1959 **MNE**. Trenley Park Wood by cottages, REW.

57, 77, 96, 05, 15

4) 35 Dunes N of Deal, 1963, Miss I. Moore. Sandwich Bay; Stodmarsh MEM.

5) Cudham Ch[urch] Y[ar]d, DPY.

35

6) E 67 Shorne Warren FGEK; 1949! **MNE**. Swanscombe nr *Epipactis* pit, A.G.S. Pit, Greenhithe, T.H. Angel. 562715, Meadow Darent Grange, HMP, 1948-55.

67

7) Lords Wood, B.C. Covett Wood, Ospringe, Roberts.

8) Copse E of Bridge Hill, RGW.

10) 45. 55 Ivy Hatch, D.McC. 55 Seal, copse E of Godden Green Road, Miss Booker, 1947. B55 40 yrs at copse at Stone Street, Blakes Green Hill, 1948 Mrs D. Warrett, 1949!

45, 55

11) 65 Piney Toll, West Malling, in sandy field, 1942-56 **MNE**. Addington, P. Grattan. 75 E. Farleigh, A. Golding, 1905, **MNE**. Penenden Heath, copse edge, 773 578, 1956, O.D.

65, 75

12) 94 Hothfield Common, 1948: 1960, HMP. 04 Willeborough Lees, in wood, 1955, P. Furneaux.

94, 04

13) 53 among bracken, nr High Rocks Lane, Tun[bridge] Sells Common, 1949-53, K.E.B.; 1955, CAS. 63 Hook Green, Lamberhurst (vc14), G.E. Shaw (**TLS**).

53, 63

(**O.pyrenaicum L.** is native in woods in the Pas de Calais but in England no nearer than Hants and Berks, though it occurs as a probable introduction in W. Sussex and also as a garden escape at 8) Pickersden, Wye, 1951, CNP.)

Scilla L.

[**S. autumnalis L.** [16]

Former native, now apparently extinct. Dry gravelly pastures and commons; very rare. Still in Surrey, Essex and Middlesex, but very rare; unrecorded in Pas de Calais.

1) Blackheath, Ray, *Synopsis*, 1696; E. Jenner, 1855; W.W.R., 1864; W.W.R. 1884; 1920, Miss Bacon, BEC Rep. 1921, p.400. No record since. W. of Eltham: F. Met. NE of Shooters Hill, M&G.

6E) Gravel pits, Chalk, Pocock. Shorne Warren, 1829, NBG. Not recorded since.]

Endymion Dumort.

E. non-scriptus (L.) Garcke 15,16 Bluebell 48/51 Atlantic

Native. Woodlands, or in shady hedge banks and road-cuttings, particularly on well-drained soils: extremely abundant throughout Kent wherever there is woodland, or remains of it. It is rare in beechwoods on shallow dry chalk soils, in ashwoods on shallow ragstone soils, but frequent on the deeper calcareous soils which prevail in valley bottoms on chalk and ragstone. It becomes scarce, though usually still present, on stiff gleyed clay soils with high water-table and poor drainage. It is most abundant on sands and gravels, except where highly acid and podsolised, and on the clay-with-flints and sandier drifts of the chalk plateau. It is absent from the alluvial sandier drifts of the chalk plateau. It is absent from the alluvial margses of 2), 4) and 15), and from 9); but occurs as far east as Fenn Street in the Hoo Peninsula and in one oakwood at Brambledown in Sheppey on London Clay. Very common throughout SE England and Pas de Calais: fades out in NE France.

1) Abbey Wood, PCH. Rly N. of Ravensbourne Station. Rly W. of Shortlands Sta[tion]. Bromley Common. Keston Common. Holwood Park. Beckenham Place P[ar]k. Shooters Hill Woods 54 GMB. Ruxley pits, in copse, S&S. Farningham Woods, FR, PCH (82!). Joydens Wood, FR, PCH. Roundabout Wood, Crofton Heath PCH. High Wood, Crofton, FR, PCH. Scadbury Park, Chislehurst, 58. Ram Wood, E of Swanley Village. Hockendell Wood, '54. Bourne Wood, '54. Petts Wood, '54. Moor Grove, Bickley, 57. W. Wickham Woods, 1916, AGDM. Rowhill Wood, Wilmington.

2) Brambledown oak wood, 55, rare. Coppice, E of Fenn Street, St Mary Hoo, '55 (L[ondon] Clay). Hawes Wood, Newington. Oak copse N of Brambledown, 966719, rare, 14/4/1955.

3) Bysing Wood. Perry Wood. SE of Dunkirk. Blean Wood N. of Dunkirk, '55. Chequers Wood / Old Park C[anter]bury, 55. Thornden Wood 47. By stream, Church Wood W of Blean, 55, and Harbledown (N. of). Tremley Park Wood. Oldridge Wood. Pine Wood / Fir Downs, Littlebourne. N. Bishopsden Wood, '55. Copse S. of Highstead Hoath, 62. Shelving Wood, Hoath, '62. Marley Pits, ...

4) Wenderton Wood, Wingham, A Grattan.

5) Wood W. of Shoreham, PCH. Pilots Wood, PCH. E of Berrys Green, Cudham. Cudham Frith. 396611, PCH. Sow Wood, Downe. Leasons Wood, Downe. Jewells Wood, Biggin Hill. Darwins Bank, Downe. Cuckoo Wood, Downe. 1m. S. of Cudham. Chevening Park Wood. W of Letts G[ree]n NW of Knockholt. ¼m W. of Knockholt Ch[urch]. W. of Scotts Lodge. NW of Grays Fm. Brasted Hill. Hogtrough Hill. Rushmore Hill (Pratts Grove, Lettice Coppice). High Wood. Newyears Wood.

6) Darenth Wood, PCH FR. Lords Wood, Darenth PCH FR. The Thrift, Bean PCH. Great Crabbles Wood. Randall Wood, Shorne. Dunstall Woods, PCH. Magpie Bottom, PCH. Greenhills Wood, Otford. Wood, Beechy Lees, Kemsing PCH. Wingate Wood, North Wood, Red Wood, Horseholders Wood. Above Up[pe]r Halling, abund[ant] (valley too). Monats [?] Wood. Swanscombe Wood. Horton Wood PCH. Holly Hill top 668 229 (B[lackheath] Beds)²⁵⁷ '62. Court Wood Southfleet, F.J. Barker. Court Wood/ Hall Wood/ Ingram Wood/ Wessels Wood, Stansted, F.J. Barker.

7) Westfield Wood. Top of Boxley Warren. Bredhurst Hurst '55. Plateau N. of Detling, '62. Scragged Oak, 62. Cox Street, 62. Wood above Q[ueen] D[own] Warren, 55. Stockings Wood Detling, 55. (loam) a[bandant], Filmer Wood, '62. (ch[al]k) r[are], College Wood Norton, 62. Tassels Wood Norton 62. Park Bottom Wood Newnham '62. Coppice W of The Valley Otterden 62. Spuckles Wood Stalisfield on loam 62. Kennelling Wood Stalisfield on loam '62. Wood E of Lees Park, Sheldwich (loam) '62. Hucking Valley, 1950 **MNE**. Wood E of Valley c[lay] w[ith] f[lints] Lees Park Sheldwich '62. Longbeech Wood 975505 on Pliocene Sand 62.

8) Penny Pot; Denge Woods. Gorsley Wd. Whitehill Wd. Covert Wood. Fleet Wood Lydden. \lydden \hill. Woolwich Wood. Walderchain Wood. Alkham: Sladden Wood, Lockeringe, The Firs.. Wood NW of S Alkham '55. R[are] to f[requent] copse S. of S Alkham 62. O[ccasional], Hall Wood, Park Wood, Hill House: Scrayfield 62. Copse N. of Bavinge Fm on clay loam '62. Wood W. of Podlinge 1962 9c[lay] w[ith] f[lints]). Wood W. of Misley Fm Elmsted on loam '62. Stelling Minnis '62. Lane N of Bossingham '62. Hunts Wood U[pper] Hardres '62 & copse S. of Hunts Wood U[pper] Hardres. Postling Wood. Sifton Wood. Dingledden Wood. Gorsehill Wood T[emple] Ewell. Lords Wood T[emple] Ewell. Pitts Wood / Lower Frights, Adisham. Willow Wood / Denton Wood / Denton Court Wood, Denton. Pickleden Wood Wotton. On loam, Reinden Wood 62. Valley

²⁵⁷ The Chelsfield Gravel Formation may be intended here.

bot[tom], Reinden Wood 62. Puckland Wood '62. F[requent] Stafflands Wood 62. Sd, Coppice E of Goodnestone (loam) '62. Lady Wood, Capell.

10) Rooks Hill '55. Wood NW of Everlands. Mid part Scords Wood. Ide Hill. Whitley Forest. Dibden Bottom. Flane Wood, Seal Chart. Oldbury Hill.

11) Ightham Village '55. Valley Wood, Wrotham Heath. Oaken Wood Rd, Barming 55, **MNE** 1898 H. Lamb. Park Wood Boughton Mon[chelsea] '55. Wet Wood SW of Mereworth 55. Wood SE of L[owe]r St Clere 55. Leybourne Wood '55. Ryarsh Roughetts 55. Larkfield Heath 55 **MNE**. Holt Wood Aylesford 55. Sandling Wood 55. Park Wood Boxley. Kiln Wood Lenham (Sandgate & F[olkestone] Sands) '62. Shipbourne: Shipbourne Wood, Cold Blows, Clearhedges, Tinley Lodge, Poynt Wood, Kiln Wood, Peacock Wood, Claygate. Golden Sq[uare] Wood, Smarden, 885415, 1962. ¼ m N. of Bough Beech; Wood by str[eam] 1m N of Bough Beech; Wet Wood N of 4 Elms by Rd; E of Leigh by Rd in copse: 55. Tonbridge Castle '55. Birch Wood, Bettersden, on alluvium by R. Beult 915402, '62.

12) Wood N E of Cobhambury '55. Stone Cross Gill, Ashurst, 518381→, 1960, CAS. Modest Corner / Brookhurst Wood: Southborough, Crompton. By A21, wood S. of Combwell, 55. Combwell Wood, 1979. Roundabout Park. Birch Wood / Brookhurst Wood: Bidborough. Castle Hill / Park Wood / Cryalls / Humphries / Pilleridge: Brenchley.

14) Lit[tle] Pix Hall '55. Mopesden Gill 55. Sd, Cast[anea] copp[ice] on Ash S, Knock Wood, Tenterden '62. Gill S. of Pigeon Hoo 62. Sandhurst: Clergy Wood, Hurst Wood, Alderden Wood, Risden Wood. Rolvenden: Slades Wood, Long [Planting?], The Tolls, Lambsden, Pookwell Wood, Windmill Wood, Brick kiln Wood, Stumble Wood, North Wood, Sparkes Wood Gill, Mount Lane, Cherry Garden, Whi... Wood, The squares, Rawlinson gill. Beneden: Strawberry Wood, Willards Hill, Seven Acre Shaw. Woodchurch [...]: Denne Wood, 05651, South Rd Wood 05674, Barn Wood 05244, Godfrey Wd 05247. A[bundant] – s[emi]d[ominant] G[reat] Heron Wood, Kenardington 62. A[bundant], Butness Wood Appledore '62. Standen Wood. Moor Wood Benenden (TWS) 62. Parsonage Wood. Rook Wood E & W Gills, Wittersham '62. Shaw by B2082 Underhill Fm Wittersham '62. Gill S. of Pigeon Hoo, '62. Knock Wood, Tenterden 62.

16) Lympne Park. Postling Wents. Ashlt Wood. Sandling Park.

var. lacaillei Senay.

6) Shoreham, 1926 W.B. Turrill, J. Bot (1930) 68, p112 (fl[ower]s white, perianth long & narrow, new to Britain.)

† **E. hispanicus** (Mill.) Chouard

Alien, naturalised at:

13) Lamberhurst churchyard, 1961, CAS; Tun[bridge] Wells, 1960, CAS; High Brooms, 1960, CAS.

Muscari Mill.

† **M. atlanticum** Boiss. & Reut.

M. racemosum auct.

Alien in Kent, occasionally escaping and becoming naturalised. Native in East Anglia, but not in any adjacent county, nor in Pas de Calais.

4) Grove Ferry, REW.

6) abundantly naturalised on Rly. cutting, Halling, 1943-49 **MNE**. Stone, well nat[uralised], 1940, PCH.

11) Hadlow, 1871, FWE Shrivell **TLS**.

16) casual, Brockhill, Saltwood, LJM.²⁵⁸

[**M. comosum** Mill. occurs on the dunes in Pas de Calais.]

Allium L.²⁵⁹

† **A. ampeloprasum**

Alien:

11) Addington, 1947, DMcC.

A. vineale L.

15, 16

Crow Garlic

²⁵⁸ This line is placed as in the manuscript, possibly qualifying the *M. comosum* entry rather than continuing that for *M. atlanticum*.

²⁵⁹ Rose placed *Allium* under Amaryllidaceae, following the treatment of that family by J. Hutchinson (*The Families of Flowering Plants*, 1926-34).

Native. Fixed dunes, dry grass-heaths, turfed shingle beach, dry banks: locally common to abundant on the coast, rather rare inland. Local in Surrey and Sussex, commune in Essex as a weed of cultivated land. Frequent on dunes in Pas de Calais.

- 1) Hayes Common, 1948: GMB. Dartford Heath, 1962, H.A.S. (var. *vineale*). Wilmington, A.C. Tagg, 1938 Notes. [Chislehurst Common, WCRW.]
- 2) Northfleet Marshes, on bank, 1946. Stone Marshes, 559751, in scrubland, HMP. Sheerness, A.G.D., 1917, **MNE**. Weed, Graveney, RTh. 06 Seasalter (vars. *bulbiferum* and *compactum*), RGW. All Hallows (var. *compactum*) 1950, J. Morton (BM).
- 3) Swalecliffe, mouth of brook, RGW. Chestfield, P.R. Bell.
- 4) Deal links; Sandwich Bay 1945-62 **MNE** (vars *capsuliferum* and *vineale*); St Georges; Princes Links, abund[ant]. W. side Lampen Wall, Stodmarsh, REW. Roadside, Stodmarsh, MEM.
- 6) Green Street Green 1946; 1963, HAS (vars *vineale* and *compactum*). Shorne by Windmill, 1946, **MNE**. Shorne, R[oad] verge, S of Kings Fm, 702726, HMP.
- 11) by Medway, Tonbridge, 1944. Hartlake Bridge, 1943, RW. Gravel pits W of Brandbridges, 1956, CAS. By Medway S. of Golden Green, G.E. Shaw; 1962, A.P. Brown. Leybourne, DMCC. By A20 W. of Hollingbourne, 1946. R[oad]side Ditton Laboratory CW. Medway Bank, Allington, EGP.
- 13) Kent College, Pembury, 1960, F.R.B. (var. *compactum* Thuill.).
- 14) Cranbrook Rd, Tenterden, 1962.
- 15) Romney Warren, 1962 (var. *compactum*) RGW. Lydd Common. Dungeness 056203 H.M.M. (var. *vineale*).h, Hythe, LJM, 1956 **MNE**. Hythe shingle beach, near Range Canteen, 1958, **MNE**.
- 16) Folkestone Leas, '46.

A. oleraceum L. 15, 16 3/51

Possibly native. Dry hedgebanks and grassland; very rare.

- 7) Hedgebank S. of Borstal, 1946: destroyed by new motorway, 1963. Bank at Whitehill, Wye, 1960, R. Gorer.
- 8) Roadside ¾ m N. of Street End, L[owe]r Hardres, 1959, BJB.
- 11) Open area in Sandling Wood, G. Morgan and EG Philp, 1958 **MNE**. Hedge by Roadside, Comp, W of Offham, Mrs Denton, 1962, comm. K.E.B., 1963! 200yds E of crossroads, 642 570(5). E. Farleigh, H. Lamb, 1890, 1901 **MNE**; Rev Fielding, 1893 **MNE**. Holland Road, Maidstone, 1958, E.G.P. **MNE**.

A. roseum L.

Alien, naturalised in one place, formerly in another.

- 4) Beach opposite Walmer Castle, 1950 MEM; 1951, 1953, Miss D.A.C. Long, **MNE**.
- 11) Roadside, Thurnham Rd, Bearsted green, D. Gattlin, 1960.

† **A. scordoprasum**

- 2) Landward side of ditch behind sea wall, 2m. E of Gravesend.

† **A. triquetrum** L.

one clump established in wet patch, Bull's Hollow, Rusthall, 1950, KEB; large patches, 1952, KEB.

† **A. paradoxum** (Bieb.) G. Don

- 13) Claremont Rd., Tunbridge Wells, 1962-63, KEB.

† **A. moly** L.

- 11) 1 plant in grassland by railway, W. of Tonbridge, CAS.

A. ursinum L. 15, 16 Ramsons 38/52

Native. Damp woodlands on base-rich moisture-retentive, but well-aerated loams or peats, under Alder or Ash coppice, and also on deep calcareous loams on the chalk; local and mostly on spring lines on the Eocene areas of 1) and 3), widespread and locally very abundant on the chalk, unknown in 5), very rare in 6) and 7) but plentiful locally in 8) from Wye to Dover and Adisham; abundant on the Ragstone of 10), 11) and 12), and along the river valleys on the Greensand, and on the Gault into 16; very rare on the Weald clay; abundant in gills in 13) and 14) wherever soils are base-rich; absent in the alluvial marshes of 2), 4) and 15). About 120 localities known. Locally common similarly on the Greensand and High Weald areas of Surrey and Sussex; local in Essex, locally common in Pas de Calais, especially in the Boulonnais.

1) NW part of Petts Wood (spring line) 1954, **MNE**. Kid Brook SW of Petts Wood. Wood by R[ai][wa]y NE of Kevington, St Mary Cray, 1954 **MNE**. ...Sundridge Park Avenue, Chislehurst, WCRW. 47 Abbey Wood, R. Burton. Darrick Wood 443652 F & C Swain

46, 47

2) 76 By Medway NW of Eccles, 1944. [Aylesford, 1880, Hb. Lamb **MNE**.] 76

3) NE corner Thorden Wood, 1947. Damp copse SW of Hernhill Church, 1958 **MNE**. SW Chestfield, R.E. Wood. SE of Frogs Island Fm/ SW of Share & Coulter Farm, Thornden Wood Rd/ ½ m S of this, E side Rd/ REW. 06, 16

6) 76 Wingate Wood, Cuxton, very local, 1945 **MNE**. Meopham, Miss Barnsdale.

7) 75 Copse, Hillfield Grange, Detling, '55.

8) Pickersdean, Fl K. Wood N. of Wye Crown. Copse N of Bavinge (loam and chalk) '62. Copse by Halfway Inn, A.2, Denton '55. Wood by Hastingleigh Ch[urch], 099444, 1959, P. Farneaux. Swanton Banks. E Brabourne Downs RAC. Bladbean. Postling Wood. Wood NW of Postling Wood 145403. Winterage Wood/ Garden Wood Acrise 63 DACL. Wolverton Wood. Coombe Vale, Dover. Caen Wood S of Coldred Ch[urch]. Woodlands, Lyminge. Sibton Wood. Lyminge Ch[urch] Y[ar]d.... Eastling Wood. Capon Wood Hunt Str[ee]t. Ileden Wood. Woods, Waldershare, Fl K. Frandham Wood, River, KDR. S. of Adisham in hedge, 223530, 1955 PCH. Bossington Wood, Adisham, L.W.W., 1949; 230555, 1955 PCH. Bishopsbourne by Nailbourne, 55. Patixbourne, G Mowat. Copse on deep calc[areous] loam, S. of Hunts Wood, L[owe]r Hardres 1962. Fryarie P[ar]k Wood, Lynsore, 1961. Wood W. of Misling Fm Elmsted (loam) '62. Wood W. of Southhill, Hastingleigh RAC. Reinden Wood, l[ocally] a[bundant] on ch[al]k, '62. Copse S. of S. Alkham (ch[al]k) '62. Oakwood on ch[al]k, E side Goodnestone Park, '62.

10) Scords Wood, in carr at base, 1954 **MNE**. SW of Ide Hill 1954. Base of Brockhoult Mount 505515. Westerham Wood 82. W of Ightham Mote. Everlands, 508518, R.A. Clarke. N. of French St, Westerham (copse by str[eam] on Hythe B[eds]) 1954 **MNE**. Boot Wood, Plaxtol. Dibden Bottom. Gault SE of Kemsing (Hills Wood).

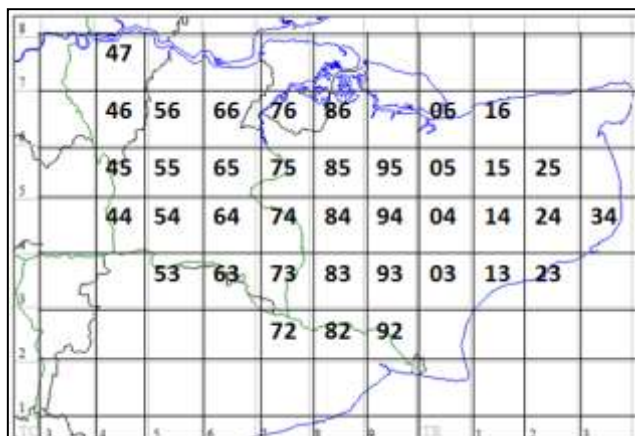
11) Ryarsh Wood, NE corner by stream, abund[ant]. Lunsford Osiers. Sandling Wood by str[eam] 55. Buttons Bourne. Basted Mill. Quarry Wood Loose. Copse by Medway, E. Farleigh, 1954. Loose Valley. Otham. Fulling mill. 921457 Park Wood, Pluckley, '54. Welham Wood, B[oughton] Malherbe. Mereworth, Alder carr S. of village. Copse SW of Watringbury (Pizien Well). Chegworth. W. of Chegworth. W. Farleigh, Quarry Wood. E. Sutton 836497. Long Wood Borough Green. Old Soar. Harrietsham. Little Wrotham springs. SW of Hollingbourne by Len. Kent ditch W of Edenbridge RAC.

W: 1½m S. of Yalding. Tonbridge Castle '55. Wood by str[eam] 1m N of Bough Beech '55. Hartlake. 1½m NE of Hadlow. SW of Hever → Gilrich. ...Gabriels S of Edenbridge. S. of Bough Beech. N of Chiddingstone bridge. NE of Leigh by Rd and St[at]io[n]. Millbay Wood W. 1m E of Delaware. E of Collier Street.

12) Copse S of E Lenham. Troy Town, Brook. Bowley Fm, Lenham '54. SW of Charing Heath, ES, '54. By Ponds W of Lit[tle] Chart. Brabourne Coombe. Fordswater S of W Brabourne. Sellindge Ch[urch] y[ar]d RAC. By A20 SE of Charing. Cadmans Wood, Bulltown. Carr, Stone Hill Sellinge [sic]. Brabourne Lees. Bybrook. NW of Ashford Warren. SE of Charing on Gault (many loc[at]ion[s]). East Well Lake, E end swamp ES. West Well springs. 05 Thicket by Chilham Hill, '45 DHK, abund[ant]. 03 Park Wood, Smeeth, 54.

13) Furnace Pond, Cowden. Scarletts, Cowden. Howletts, SE of Edenbridge. Loch Skinners, SW of Chiddingstone, 1943 **MNE**. Stream S. of New Church, Pembury. Copse by R. Teise, Hoathly, Lamberhurst, '55. Southborough, Vauxhall Lane Bottom HNC. Chingley Wood, S end. Wood S. of Chingley Wood. ¼m S of Golford. ½m S. of Sissinghurst. Tong Fm Brenchley. Gill N of Goudhurst. By River, Groombridge Village. Groombridge Hill. Str[eam] 1m SE of Tonbridge. Friezeley Wood. S of Postheap Kippings Cross. S of Horsmonden Pit/Stream. Near Lamberhurst. Batts Wood, Goudhurst, L.J. Davies.

14) Mopesden gill, '55. By A.229 N of Hawkhurst. Robins Wood, Cranbrook. W. of Lit[tle] Oven Wood. Gill S. of Tenterden, 1949. Penhill, Tenterden. W. of Iden green. Gill Wood, Owley, Wittersham. SE of Conghurst on S[use]x b[oun]d[ar]y in copse, '55. A229, 1½m S. of Hawkhurst 55. Wood SW of Lit[tle] Conghurst, Hawkhurst 55. Gill NE of Rolvenden. 1m N of Rolvenden. Bodiam Br[id]ge Sandhurst b[ri]d[ge]. Babbs Gill. Hawkhurst Ch[urch]. Ockley Hawkhurst. SE of Rolvenden. Rolvenden St[at]io[n]. Dingleyden Gill. Gill NE of Benenden. S pf



Tenterden Golf Course 903337, ES, 47. Copse, Buckhurst Br[idge], 915349, ES, 46. Bottoms, Appledore, J. Ridley, 1908 **MNE**.

16) Asholt Wood. Mill Leese Shaw nr old Sta[tion], Hythe, LJM. Oak Banks, Stone Fm, satwood, LJM. Holywell, Folkestone, 1948, B.W.

†**A. cepa** L.

1) Escape, Ruxley Pits, S&S.

Tristagma Poepp.²⁶⁰

† **T. uniflorum** (Lindl.) Traub²⁶¹

Alien, occasionally escaping and becoming naturalised.

3) Whitstable Castle, REW.

11) Oaken Wood, near North Pole Inn, Teston.

Leucojum L.

† **L. vernum** L.

13) Groombridge, Mrs. Robinson, 1952, **MNE**.

16) Naturalised at Brockhill, LJM.

L. aestivum L.

Former native, now extinct, of alluvial marshes by the Thames and Medway. It now exists no nearer than the Thames and Loddon Banks in Berkshire.

2) [½ mile below Orchard House Ferry, Greenwich, on Thames bank, 1821, C. Johnson, *Hortus Delineatus*.]

[Greenwich Marsh, 1847, K. Chambers, (**BM**).] Plumstead Marshes, 1848/1850, Maidstone LNHS **MNE**. Marsh, Cuxton, Hb. Bed[ford] Coll[ege].

11) [Nr Tudeley, 1877, F.W.E.S., **TLS**.]

16) Naturalised at Brockhill, LJM.

Alien, naturalised in ornamental woodland in a few places.

10) Wood S. of Beechmont, Riverhill, Sevenoaks, 1949, Mrs Warnett (sp!) **MNE**, 1950.

11) Tinley Lodge, Tonbr[idge], Mrs D. Warnett.

12) Brook, MEM, in ditch by ...

16) Naturalised in wood by stream SW of Brockhill School, Saltwood, 1962.

Galanthus L.

† **G. nivalis** L.

Snowdrop

Alien, naturalised in a few woods and near churchyards. Possibly native by the Mole in Surrey, but not in Kent.

3) Kenesdale, 1959, Mrs. B.; RGW.

5) Chevening Ch[urch] y[ar]d and copse NE of Rectory RAC.

6) Still ½ acre at Cobham Park, RD English, 1967. Holly Hill, J. Hepworth.

8) N of Westwood Fm, Upper Hardres 608683, E. Robinson.

10) Wilmott Hill, 1943.

11) Wood NW of Plaxtol, 1945, CW. Penenden Heath, MNHS 1850 **MNE**: EGP, 1960.

Woodlands S. of Court Lodge, Harrietsham, 1961, B. Dodds. Spinney E. of Rectory, Harrietsham, 1961, B. Dodds.

13) Lamberhurst Churchyard, J.R.W.; 1961, CAS, and on Golf Course and by main road, CAS. [Angle Wood, formerly ASK.]

16) Naturalised at Brockhill LJM.

Narcissus L.

N. pseudonarcissus L.

15, 16

Daffodil

12/52

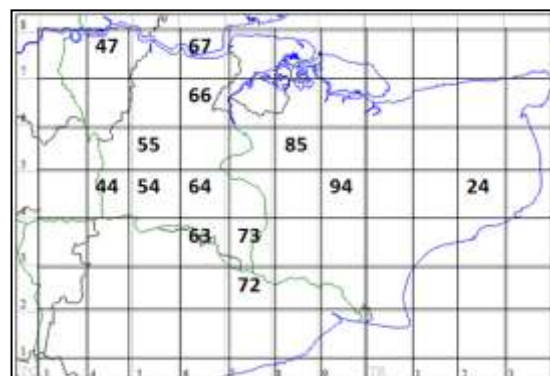
Native. Dry woodlands on sands and loams, rather rare and local, but locally abundant in a number of scattered localities, particularly in the gills of the High Weald. Formerly it appears to have been much

²⁶⁰ In the manuscript given as *Ipheion* Raf.

²⁶¹ In the manuscript given as *I. uniflorum* (Grah.) Raf.

commoner, particularly near London in 1). Locally plentiful in several parts of the Weald of Surrey and Sussex, very local and nearly confined to the N. in Essex: very local in Pas de Calais.

- 1) 47 [Charlton Wood, 1841, J. Forbes Young, **BM.**] 47 Abbey Wood, PCH.; 1839, Sansom, **BM**; 1944, abund[ant] and protected, PCH, 1954; G Matthews, 1950 **MNE**. [Copse, Poverest, Orpington, PHC 47
6E) 67 Randall Wood, Shorne, 1948. 67 Brewers Wood, Shorne, S. of Ridgeway, 1948 **MNE**. 66 Cobham Park, in oakwood with *Pteridium*, R.D. English, 1963 66, 67
 8) 24 Lockeringe Wood, Alkham, Miss D.A.C.L.: 1948-62! **MNE**. 24 Wood E of Wootton, Miss D.A.C.L.: 1950! **MNE**.



24

- 10)** Chestnut Woods N of Bitchet Green! 563547, W. Breed; 565545, Mrs. Warnett, 1948. 45 Squerries Park, nr Cricket pitch, 1958, RAC. 55 Emmetts, Scords Wood, prob. native, RAC. 45, 55
11) 64 Woods E. of Starve Crow Hill, Tonbridge, 1948, Mrs. Warnett. Wood nr Leeds, 1891, H. Lamb **MNE**. a[bandant]: copse W. of Warren Wood, Hollingbourne, 1964, Mrs B. Dodds. Kingswood, Ulcombe: EP. 44 Guildables Wood (N and by pond), Crockham Hill 1958, RAC. Meadow, Scotney Castle, JS, **TLS**. 85, 94, 44
13) 44 Hedgebank and pasture, N of Scarletts. Shernden, RAC. 44 Furnace Pond, Cowden, 1947 **MNE**. 63 Brick Kiln Wood, SW of Hook Green, (vc14) 1958, CAS. 44 Gill SW of Chiddingstone, JHL, 1948. 54, 64 Woods, South Frith, Tonbridge, CAS, 598437, l[ocally] a[bandant], 1957 (SE of Forest Fm). 73 E Bank, tributary gill of Crane Valley 786362, SE of Cranbrook, abundant, D. Streeter. Robins Wood, Cranbrook, 764338, v[ery] a[bandant], 1956, DS. 73 Attwaters Gill, S. of Cranbrook, abundant, Burgess; 1944-51 **MNE**. 73 Horseshoe Wood, S. of Cranbrook, rare, 1945. 73 Mopesden Gill, W. of Hawkhurst, abundant, 1948-60 **MNE**. 72 Gill W. of Delmonden, W. of Hawkhurst, 1954 **MNE**. 63, 54, 64, 73, 72

[†] **N. incomparabilis** Mill.

- 13)** Stream below High Rocks, D.McC., 1949.

[†] **N. majalis** Curt. (**N. poeticus** auct.)

- [6] Shorne Warren, 1823, C. Johnson, *Hortus Delineatus*]]

12) Wet g[roun]d by Wye Sta[tion], KEB.

- 13)** Stream below High Rocks, JRW: DMcC, D. Pigott, 1949. R[ai]l[wa]y bank, Tun[bridge] Wells West Sta[tion], KEB, 1962.

[†] **N. x biflorus** Curt.

- 4)** Old r[ai]l[wa]y W. of Wingham 235575, 1953.

6E) Shorne Warren, 1947! 1948! **MNE**.

- 14)** R[oa]dside nr Tenterden, Dr. Taylor, teste KEB.

Garden *Narcissi* occur at Ruxley pits as escapes, S&S.

[†] **N. major** Curt.

Pickledon, Chartham, DHK.

IRIDACEAE

†**Sisyrinchium** L.

†**S. bermudiana** (**S. angustifolium** Mill.)

16

Alien; garden escape, v. rare.

- 1)** Dartford Heath, HW Monckton, BEC Rep. (1913), p.394. Hayes Common, 1934, DMcC, BEC Rep. (1937), p.508.

2) Swanscombe Marshes, one clump, AG Side, 1965.

- 13)** Naturalised at Bayham, 648366, vc14, Sussex, 1957, CAS.

Iris L.

I. foetidissima L. 15, 16 33/51 Gladdon, Stinking Iris, Roast-beef Plant

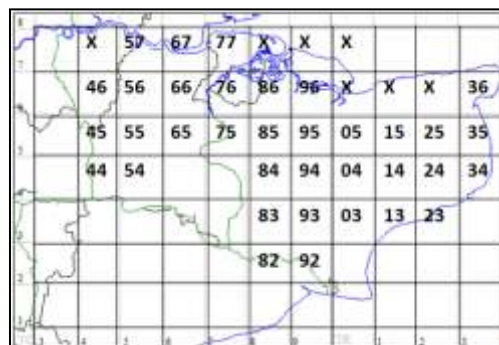
Native. Woodland, mostly of Beech and Ash, scrubland and hedgerbanks, mostly on chalk and ragstone; on sea-cliffs in *Ligustrum-Rubia* scrub association; occasionally in woodlands on clay or loam; widespread, but with its greatest abundance on the chalk and ragstone of S.E. Kent in 8) and 16); common westward particularly on the escarpments of these formations in 5), 6) and 7), and in 10) and 11) more locally; on weald clay near the old coastline and on the gault in 12), and rarely in gills on Wadhurst Clay in the SW part of 14); not rare on the Thanet Sand in 1) and 6E). Unknown native in the Marsh districts 2), 4) and 15), on the Western and Central High Weald in 13) and 14), and on the weald clay in 11) and the west part of 12). It shows a somewhat oceanic distribution. In Surrey almost confined to the chalk; in Sussex common on the chalk and in the Hastings area on Wealden sands and clays near the coast; rare to mostly on the Boulder clay in Essex; unknown in N. France E. of Normandy.

1) 56 Farningham Wood PCH.

2) Tonge church ;'57 J Moor. Not 06 & 16, not 26

5) Woods W. of Shoreham, 1946. Downe. Chevening Park. Cudham Ch[urch] Y[ar]d, DPW. 45, 46, 55

6) Mounts Wood. Darenth Wood. Lords Wood, Darenth. [Ash, Benj[amin] Harrison.] The Thrift, Bean. Swanscombe Wood. Edge of Swanscombe Marshes, 1938, P.H.C. Great Crabbles Wood. S. of Cobham Park. E. of Shoreham. East Hill, E. Armstrong. Greenhills, NE of Otford. SE of Eynsford. Woods on Downs scarp above Trottiscliffe, 1962. 65 Wrotham, chalk scrub. Forty acre Shaw, Ryarsh Downs. Birling Downs. Crookhorn Wood. Upper Halling Downs, v[ery] a[bundant]. Wingate Wood. Woods above North Halling PCH. N of Cuxton.



7) 76 Burham Downs. 76 Boxley Warren. 75 Boxley Warren **MNE**. 75 Detling Hill. 86 Bredhurst Hurst. Queen Down Warren. Hollingbourne Hill. Bluebell Hill. Lords Wood. By A251, Hill W. of Boughton Aluph Ch[urch] 030485, 030486, 027484, 55. Belmont Park DMCC. NE of Molash 030525 ES. Park Wood, Chilham, 040525, ES. Hawkins Wod, Chilham DHK. East well Park, 002492, ES. West Well Suomi²⁶² 987482, ES. White hill, 036490, ES. Godmersham Downs 057503, ES. Below Bilting 045495, ES. N. borders Kings Wood, 036617, 043520, 053523, ES, and edge DHK. 75, 85, 95, 76, 86, 96

8) 04 Sole St[reet] Downs 090495 ES. 05 N of Winchcombe 085500 ES. 04 The Junipers, Wye, 070477. Stowting Hill RAC. Downs foot E of Etchinghill. Browns Wood, Temple Ewell. Northbourne, 1961, Miss B. Nash. Wood W. of Lit[tle] Mongeham on chalk. Coombe Vale Dover 1955. St Radegunds KDR. Lydden Spout. Abbots Cliff. The Warren, a[bundant]. Base of Folkestone Downs. Base of Cheriton Downs. Postling Downs. 04, 14, 24, 34, 05, 15, 25, 35

9) 36 – planted in Thanet.

36

10) Rooks Hill, scarp woods.

11) Kings Wood, Ulcombe, B. Dodds. Kent Brook W of Edenbridge, RAC. Headcorn Ch[urch] Y[ar]d, RAC. 44, 54 R, 84 (?rag[stone])

12) 04 Nackholt Wood, 065425, ES. 03 NW Park WoodBilsigton 042363, ES. 03 Horns Wood W of Bilsington 032342 ES. 03 Copse by B2070 N of Ham St[reet], 000341, ES. Chilham Castle nr lake. Sellindge Ch[urch] Y[ar]d RAC. 94, 93, 03 (rag[stone])

14) 92 On Wadhurst Clay at top, gill W. of Tophill Fm, Wittersham, 1962. 83 Gill NE of Benenden, 1954 (Wadhurst Clay) **MNE**. 982 Planted in W Oxney.) 93 —. (82 planted), 92, 83 one loc[ation]

16) 23 abund[ant] N. of Cheriton, 1944, DHK. Folkestone JG. Postling Wents (Gault Clay) ES Edees. Coombe Wood, Etchinghill, BN. Sandling Park RAC. 13, 23

I. pseudacorus L. 15, 16 Yellow Flag, Fleur-de-lis 48/51

Native. Streambanks, ponds, ditches, and swamps; very common throughout Kent, except in the chalk districts where, however, it occurs in a few ponds in 6) and 8); and in the Sheppey Swale area, where it is very rare. Most plentiful in 2), 4), 15), and on the clay areas of 10), 11) and 12). Very common in the adjacent counties and in N France. Unrecorded 96, 97, and 23.

*Roman; seed, Crossness, Spurrell 1889, Reid 1899.

²⁶² Suomi, mentioned here and elsewhere, was the address of E. Scott, who contributed records.

- 1) Keston Common, HAS. North Cray Wood PCH. Sparrow Fields, F. Swain. Ruxley pits, S&S. 375661, W. Wickham PCH. 36, 46
- 2) Erith Marshes, PCH. Ebbsfleet, Northfleet, now only 1 clump, HAS, 1961. Medway, Eccles, '44. Snodland! E. Bartlett 1883 **MNE** B.C. Pond ¼ m W of Warden Point, Mrs. E. Bryron, Stream, above L[owe]r Halstow, 857669, '62. 47, 67, 76, 77, 86, 87, 06, 07; abs[ent] 96, abs[ent] 97.
- 4) Grove Ferry, Worth Minis, Hacklinge, Ham Fen f[requent] – l[ocally] a[bundant]. W of Sandwich. Sandwich Bay. Wenderton Manor by stream, BN. Wingham Fen. 25, 35, 16, 26, 36
- 6) 67 Chalk pit, Swanscombe, HAS.
- 8) Pond, Garden Wood, Acrise, DACL. Pond, Gate Fm. 24, 34
- 9) Copse, Durlock, Minster, A.G.S.
- 10) Westerham, E. Armstrong, stream at 440535, DPY. Rivebank, Otford, PCH. Lullingstone, F. Swain. Darent Meadows PCH. 45, 55, 56, 57
- 11) Maidstone, 1882, MNHS **MNE**. Boxley station. Fairbourne Mill, Harrietsham, B. Dodds. Medway Bank, Hartlake Farm, 1939, JRW. Golden Square Wood Smarden 885415, '62. Pond E of Headcorn 849137, '62. Pond Leighbridge Headcorn 813454, '62. 65, 75, 85, 66, 44, 54, 64, 74, 84,
- 12) Fordwater, Brabourne, RAC. Gibbons Brook. Wood SW of R[ai]l[wa]y W. of Sellindge, RAC. East Well lake swamp ES. 95, 05, 15, 94, 04, 14
- 13) 53 Pond by Broadwater Lane, T[unbridge] Wells, CAS, 1960. Bayham CAS. 63 Ditch and Teise S. of Lamberhurst Church, 684365, CAS, 1960. Pond W of Speldhurst GE Shaw. 53, 63, 73, 83
- 14) Breeches Pond RAC.
- 15) Shirley Moor, near B.2080, 1945 **MNE**. 01, 02, 03, 92, 93
- 16) Stream NE of Asholt Wood BW. Newington Moor. 13

†l. "germanica L."

Alien. A favourite garden plant which sometimes becomes naturalised when thrown out of gardens.

- 1) Ruxley pits, S&S.
- 8) Puckland Wood, garden throw-out, 1962.

Crocus L.

†C. vernus (L.) Mill.²⁶³

- 1) Ruxley pits, S&S.
- 13) Naturalised in Lamberhurst Churhyard, 1961, CAS>

C. nudiflorus [Sm.]

- 10) SE of Crockham Hill in copse, 1960, RAC.

Crocsmia Planch.

C. x crocosmiiflora [(Lemoine) N.E. Br.]

- 3) Dargate → Monument, path through trees, Mrs B.
- 10) Sevenoaks tip CAS.
- 11) Edenbridge tip DPY.
- 13) Commonly naturalised around Tunbridge Wells, 1960, CAS.

[†Gladiolus L.

Alien, scarcely naturalised.

†G. communis

- 9) Naturalised in gardens, Margate, Minster, and Monkton, L.W.W.]

DIOSCOREACEAE

Tamus L.

T. communis L.	15, 16	Black Bryony	48/51
-----------------------	--------	--------------	-------

²⁶³ Here named as in Stace, 2nd edition, but given in the manuscript as *C. purpureus*, without author citation.

Native. Woodlands, scrub, and hedgebanks' very common throughout Kent except in the Marsh districts 2) and 4), where it is very rare: seemingly absent from Romney Marsh 15), and in Sheppey only at Warden point.

1) Shooters Hill Woods, GMB. Ruxley pits, S&S. W. Wickham Woods, 1916 AGD **MNE**. Joydens Wood. Farningham Wood, PCH, 82.

2) Grain, PCH. Warden point.

3) Shelving Wood Hoath (Wool[wich] Beds) '62.

5) Wood W. of Shoreham PCH. Hedge²⁶⁴ 396611 PCH. Chalk W. of Eynsford PCH. Pilgrims Way, Polhill, PCH. Pilots Wood, PCH. Darwins Bank Wood, Downe, TEL.

6E) Darenth Wood, PCH. Mounts Road, PCH. Dunstall Woods, Shoreham, PCH. Romney Street, PCH. Preston Hill, PCH. Wingate Wood, Halling PCH.

7) Burham Downs. Pilgrims View L[owe]r Bell 62. Spuckles Wood, Stalisfield (ch[al]k) 62. Oak Wood / Beech plant[ation], E side Goodnestone P[ar]k '62. Sandy *Cast[anea]* copp[ice] E. of Goodnestone '62. Puckland Wood '62. Stafflands Wood '62.

8) copse N. of Bavinge (ch[al]k) '62. Wolverton, Wood edge, ch[al]k '62. Ch[al]k Wood W. of L[it]t[le] Mongeham. Wood W. of Misling Fm Elmsted (ch[al]k loam) 62. Patribourne / Bishopsbourne, JG. B Reinden Wood (ch[al]k) 62.

10) Westerham Wood 82! Horton Kirby PCH.

11) Hedge, Green Lane E of Headcorn 849437.

13) Stone Cross Gill, Ashurst, 518381, 1959 CAS. E of Bidborough. Vauxhall Lane Southborough HNC. Combwell Wood 1979.

14) Gill S. of Pigeon Hoo, 1962. Knock Wood Tenterden (loam by r[oa]d) '62. Butness Wood, Appledore 62. Oxney, Cuckoo Wood, Wittersham '62. 15) unrecorded

16) Postling Wents on Gault GSE. Above R[oyal] M[ilitary] C[anal] Hythe, Mrs MJ Comyn '54.

The Orchids of Kent²⁶⁵

ORCHIDACEAE

After Hants, Kent is the richest British county in Orchidaceae – 35 species have been recorded, of which 30 still occur. It is even more notable for the relative abundance of a number of species which are rare, or very rare, elsewhere, such as *Orchis purpurea*, *Ophrys spegodes*, and *Aceras anthropophorum*.

"Enough orchids grow in Cobham Park to pleasure all the seamen's wives in Rochester". Robert Turner, *Botanologia*, 1664.

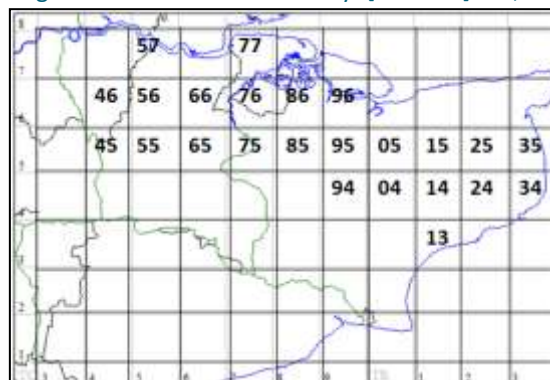
Cephalanthera Rich.

C. damasonium (Miller) Druce 15,16 24/52 Common White Helleborine

Native. Beechwoods, on chalk, very constant and often abundant: coppice and scrub on chalk, frequent but not abundant: very rarely in other soils – in one wood on ragstone and two on Gault clay. [Districts] 5-8, 10, 11 and 12.

[1) St Johns Ch[urch] Y[ar]d. Beckenham, S.E. Chandler.]

5) Beechwood w. of Shoreham 513617-514619 PCH; DL. Pilots Wood PCH. Fox's garage, Badger's Mount, 494623 DL, 1954. High Elms 445628 DL. Chevening Park 486586. Cuckoo Woods Downe 447623. Timberden Bottom 511619, 512620, DL. Polhill tunnel 506603. Polhill, by A21, by quarry 503591. Rushmore Hill (Lattice Coppice) 473612. Darwin's Bank, Downe. S of Pratts Bottom 474618, Dr. K. Marsh. 474615, DL.



²⁶⁴ No location stated, but the gridreference is near New Addington, barely within the vc16 boundary.

²⁶⁵ A list headed The Orchids of Kent was amongst documents typed out when Francis Rose was embarking on his revision of the Flora c.1999. It is unclear whether it was intended for the Flora and what was its relationship with the general checklist of species, whose typing up was incomplete, but its sequence and naming of species has been followed here, rather than as given in the MS. There was also a list of orchid-rich sites with their constituent orchids headed 'Flora of Kent Orchid-rich downlands'.

Hazelwood, N. of Cudham. Nr Westerham Hill top, 440562, DL. Salt Box. Downe Golf Course 427605. 433635 The Larches, Farnborough DL, [19]54. N. of Andrews Wood, Shoreham 503622 DL. Beechwood N.W. of Eynsford 535662 DL.

6) S.E. of Eynsford, 533644, [19]57 DL. S.E. of Dartford. Great Crabbles Wood, Shorne, 1946 **MNE**. Magpie Bottom 548618; 543611, 1954, DL. S.E. of Shoreham 531608 DL. 549693 Dines Fm by Kemsing DL. Dunstall Woods, Shoreham PCH 530619. 529612 White Hill, Shoreham PCH, 531608, 531613. Row Dow Hill 542597. N.W. of Kemsing, above St Clere 582588²⁶⁶ DL. Woodlands, W. of Wrotham 591597²⁶⁷. Wrotham Hill. Woods NE of Wrotham, 622599. Above Wrotham Water 626605. North Wood, Cuxton. Wingate Wood, Halling PCH; 1959 **MNE**. Wingate Wood 698655 DL, FR. Ryarsh Downs. Crookhorn Wood 672628 DL. Upper Halling Wood. S. of Cobham Park, 1946. S.E. of Luddesdown. Ridge Wood, Meopham, 1948 **MNE**. Wouldham Steps Meopham D. Friend. Hartley Wood. Buckland. Pennis Wood E., D.V.S. [Nash?].

7) Castle Mound, Wouldham 727653 DL. Burham Downs, E. end, 1955. Pilgrims View, Bluebell Hill, '62. Under beech, Westfield Wood, 1962. Under beech, Boxley Warren, **MNE**. Abundant, coombe W. of Detling 1944-62, 788587. Detling Hill, 819577. Thurnham Longreach Wood, Stockbury, 1954 **MNE**. Bluebell Hill. Chatham Ridgeway, BC. Horsted Valley BC. College Wood, Newnham. Park Wood, Molash. Ashford Rd, Chilham DHK. Purple Hill '44-'62, 808624. Bredhurst Hurst. Queen Down Warren '62 **MNE** 827629. Potter Wood DW 54. DL 826628. Wichling Wood. Beech, Filmer Wood (chk), 1949: 1962. Belmont Oark, Mrs Vershope. Syndale Wood, Ospringe, ASG[?] **MNE**. N. of Chilham Church, D.H.K. Hangers NW of Westwell: E of Charing. Hart Hill. Godmersham Downs DHK. Soakham Down. Monkdown Wood BC. Lords Wood, Walderslade, 1951 **MNE**: 769622, '61 DL. Monk Wood, B.C. Hempstead, B.C. Rainham Park, B.C.

8) Mystole 088533 AGS. Chilham Downs DHK. Olantigh Rd., Wye, DHK. Hurst Wood, Hassel Street, Wye, 1961, CAS. Longport, Crundale, DHK. Covert Wood. Larkey Valley Wood 1949-55 **MNE**. Copse, Ropersole Fm, Denton, 1946 PRB. W of SW of Lydden, 1955. Chilton, KDR. Chartham Downs DHK. Bourne Park, Charlton Park, above Street Fm, Barham [cross?] Rds beechwood a[abundant], Before SW of B[ishop]sbourne - BJB. E. of Bridge in larch pl[antation], Snowdown Plantations, Rubery Down.)- BJB. Stakklands Wood '62. Fagus belt E side of Godnestone Park 1962. Beech plant[at]io n N of Coldred 1959 **MNE**. Eastling Wood, Waldershare 1959 **MNE**.

10) Broadhoath Wood, S. of Stone Street on ragstone escarpment, 1950 **MNE**.

11) Ryarsh Wood, 1942-3, rare in ride on gault clay. Kiln Wood, Lenham, 1965, B. Dodds & KFC.

12) Cadmans Wood, Brook, on gault, 1946, C.N. Pope.

[C. longifolia (L.) Fritsch [15,16] Sword-leaved Helleborine

Beech woods on chalk and in Oakwood on Hythe Beds. Very rare. It has become very rare in Surrey, but still exists in West Sussex very locally, and more plentifully in Hants. Not in Essex. In Pas de Calais (very rare, Hesclin, Le Touquet): less rare in Somme.

[5] above Dunton Green, Mrs Tristram, BEC Rep. 1920; seen by her in 1927, not in 1929.]

6) [Wrotham Hill, in beechwood by A20, R.A. Graham, c.1930.] [Wingate Wood, c.1930, F. Forsyth: not seen, 1942-62.] [Between Cobham & Cuxton through Bush. *Fl. Met. Suppl.* 10.] [Fawkham Wood, *Fl. Lond.* IV.]

7) [Boxley Warren, F. Forsyth c. 1930.]

10) in *Q. petraea* woodland in grounds of house, Brasted Chart, 1973, R.A. Clarke; 1982! 3 infl[orescence]s.²⁶⁸

(C. rubra (L.) Rich.)

Of very doubtful occurrence in Kent.

5) High Elms, several plants. A.D. Webster in *British Orchids* 1899.

7) Beechwood ¼ m W. of Wormshill, F. Forsyth etc., c.1930. Not seen since, 1942-62, though many searches of this spot have been made.

8) "1 pl. Reported near Chilham, 1925", J. Jacob, *Wild Flowers, Ferns & Grasses of E. Kent*. "near Wye" T. Attenborough, 1919, BEC Rep. 1919, p.680.

I doubt if any of these records were correct, except perhaps the Wormshill one. No specimens are known to exist to settle the matter.]

Epipactis Sw.

²⁶⁶ This grid reference is neither very legible nor (apparently) accurate.

²⁶⁷ Inaccurate gridreference.

²⁶⁸ At this point in the MS there is an abbreviated list of orchid taxa, which looks just to be an aide memoire.

E. palustris (L.) Crantz 15, 16 Marsh Helleborine 3/52

Native. Calcareous Dune slacks, fens, and a damp disused chalk pit: very rare, but locally still abundant in 4) and 6). This beautiful delicately-tinted plant with its frilled cravat-like labellum, is now probably extinct in Surrey and Essex, and exists probably in only one Sussex locality (Balcombe): in the Pas de Calais it is however still abundant in the dune slacks and in certain fens to their near [sic].

[1] old records for the Cray Valley between St Mary Cray and Bexley (Fl. K.).]

4) 35 W. of Princes Club House, in slacks, 1952, Miss D.A.C. Long: 1963! 1964, Mrs B: 1965! ¾ m W. of Princes Club House, in marsh behind dunes, slack by Rd N of old Club House, 1996 – 2 sites. 36 Miss E. Day, before 1939; 1946-52! C.200 spikes, each year **MNE**. 35 Dune slack S W of Guilford Hotel, 1950, Miss D.A.C. Long: 1950-62! **MNE** c.500-1000 spikes each year. [nr. Sandwich, 1893, ESM, **BM**.] 35 Ham Fen, *Bot. Guide* (1805), FGEK: 1839. 1946-1962! **MNE** ext[inct]. 36 Marsh E. of A256–B2048 junction Ebbsfleet, R.E. Wood, 1954: D. Harle, to 1963! Still 1996 formerly abundant, now scarce. [Formerly at Wingham, O.B.G.: this fen is now reclaimed.]

26, 35, 36, 37

6) 57 Chalk pit, N. of Craylands Lane, E of Greenhithe, 597751 & 596750, 1946-63, abundant **MNE**. 50 pl. 1956, DL: 500 pl. 1961, at 597751, DL.

[8] Formerly on the undercliff N of St Margarets Fl. K.]

[16] Formerly N of Beachborough: Newington Moor, CPSK: Aldington Park, FGEK: not refound, though the habitats still exist.] [Planted in Sandling Park, by Major Hardy, teste Rev. A.C. Cawston.] 47, 57, 25, 36, 35, 34

E. purpurata Smith 15, 16 Purple-washed Helleborine 26/52

Native. Dark Woodlands and shaded roadside verges and Banks: widespread and locally frequent on clay-with-flints in 5)-8), also scattered in many places in 11) on weald clay and in 13) and 14) on Hastings sands and clays: rare in 1) and 3): unrecorded in 2), 40, 15) and 16). Not uncommon on clay with flints in Surrey and in the Weald of Surrey and Sussex; very rare in Essex: so far unrecorded in Pas de Calais.

1) Roundabout Wood, Crofton Heath, P.C. & J. Hall.

3) 05 Perry Wood, Selling, DHK, 1945. 15 Bigberry Wood, Harbledown, 1954 **MNE**.

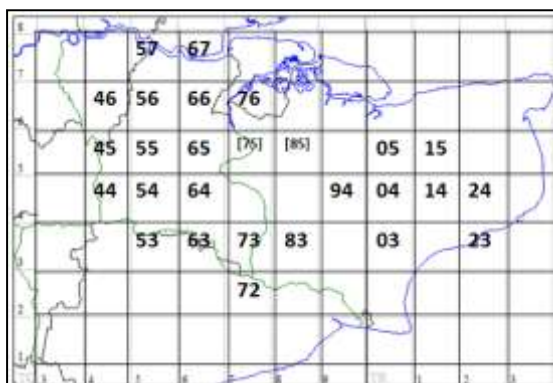
5) 45 fifteen pl. R[oad] verge E of Cudham Grange 447571, D.L. 1962. 45 S of Knockholt, 1947, M. Puffard: Miss H. Zetton, 1947, teste A.J.W. 45 Rd verge, Hogtrough Hill, 1954, 458568. 56 100 pl. Timberden Bottom W of Shoreham, 511619, 1954, DL. 56 Darent Acres, Shoreham, 515623, 1961, D.L. 46 Wood SW of Downe, JEL. 55 Polhill by A21, 505591, 1 pl. D.L. 1952; 504592, 7 pl. D.L. 1960. 46 30 pl. High Elms, 443626, DL 1955; Cuckoo Wood, Downe, 448622, 20 pl., 1956, DL. 46 Rd SW of Washneys, 464603, 1956, DL.

6) Brewers Wood 684698, Mrs D.V.S. Woods. 67 E. side of Swanscombe Wood, C.L. Colorette & F.R., 1946 **MNE**. 66 Wingate Wood, Halling, 698655, 20 pl., P.C. & J. Hall, 1954. One infl. In Downs Wood E of Vigo, A. Ruch. W. side Bush Valley, 1964, PCH.

7) 76 Castle mound S. of Borstal, 727653²⁶⁹, 200 pl., 1954, D.L. 76 Chalkpit W. of Borstal, 725665, 1954, D.L. 94 Fritten Field, Westwell ES. 04 Soakham down, ψ HPS (Bilting). 85 Bicknor Rectory, 1895; Bredhurst, 1898: Rev. G. Waterman **MNE**. Queendown Warren, formerly, F.F. Top of Torry Hill, Newnham on c[lay] w[ith] f[lints], 1955, OD. 94 Beech Hanger NW of Westwell, ES.

8) 04 Wye Down, field border, 083440, 1956, DL. Rdside Denge Wood, nr Penny Pot PH, Mrs B. 15 Copse E of and opp. Gorsley Wood, BJB, 1946! **MNE** 1955 BJB. Roadside SW of Denton 202453, Miss DACL; 1945! 14 Nr Standard Hill Farm, Acrise, BJB, 1955. 24 Winterage Wood, Acrise, 1965, DACL. Wood nr. St Radigunds Abbey, BJB, KDR. 24 Lit[tle] London, Lydden, KDR. Larkey Valley Wood, 1951, REW. Rdside, Park Wood E of Six Mile Cotts, BJB: DACL. 14 Yockletts Bank, Miss D.M. Elwin. 15 Copse S. of Bursted Wood, Upper Hardres, 1955, BJB, RG & FR, **MNE**. W edge Charlton Wood, v[ery] a[bandant] 1955. BJB. 24 Wood near Denton, 1949, Miss D.A.C.L. 24 Selstead, 1939, F. Hyland. Lords Wood, Browns Wood, T[emple] Ewell, KDR. 24 Walderchain Wood, 1939, F. Hyland. 14 Clavertye Wood, Elham, 1956 **MNE**. 23 Hougham, VFP Day.

10) Riverhill, under Beeches, 1955. 54 Top of Medway Bank nr. Castle, Tonbridge, 588465, M.M. McFarlane.



²⁶⁹ Corrected from 127653. This is likely to be a mound in Shoulder of Mutton Shaw.

- 11)** 55 Fourhill nr. Tonbridge, Mrs V.E. Baxton. 65 Golden Stable Wood, Starvecrow Hill, 1954 **MNE**²⁷⁰. 55 Nizells, A. Grazemann. 54 Trench Wood, G.E. Shaw. [75 Oaken Wood, Barming, 1904, H. Lamb **MNE**.]
12) 03 Browne Wood.
13) Forge Wood Bayham 1947 Miss G. Scott. 63 By Bayham Chapel, JRW: 1944! **MNE** 1957 CAS. 53 nr Langton Green, Miss F.I. Williams, teste A.J.W. 73 Nr. Frith Farm, Bedgebury, 1955, **MNE**. By Pinetum, Bedgebury, CAS, 1955. 64 Wood nr. Capel, 1938, Mr. Benions, **TLS**.
14) 83 Wood W. of Breeches Pond, 1947 **MNE**, 1962, C.A. Lister. 83 Rdside W of East End, 2m. NE of Benenden, 1947. 72 SE of Hawkhurst.
16) 44 [locally- a[abundant] Wood N of Aldington Knoll, 1958, LJM.

E. purpurata x **E. helleborine** = **E. x schulzei** P. Fourn.

8) Copse S. of Burstled Wood, Upper Hardres, 1955, B.J.B., R.G. & F.R., conf. V. Summerhayes. Park Wood, E of Six Mile Cotts, R. Gorer, det. V. Summerhayes. 1960.

E. helleborine (L.) Crantz 15, 16 Broad-leaved Helleborine 34/52

Native. Woodlands and shady road banks, on a variety of well drained soils; frequent: commonest by far on the chalk in 5)-8), but widely distributed over the Weald in 10)-14), and present but rare in 1) and 3): unrecorded in 2), 4) and 15). Frequent in Surrey and Sussex, rarer in Essex, frequent in Pas de Calais.

1) Wet Wood by R. Cray, N. Cray, PCH.

3) Oldridge Wood, 1949. Copse, St Stephens Hill, Canterbury, RGW. Perry Wood, Selling, 1945, DHK. Hospital Wood, Fordwich, REW. Dargate, 1955, RGW.

5) The Larches Wood W. of Farnborough, PCH. Darwin's Bank, Cudham. Hazel Wood, Cudham. Beech hangers by A.21, Polhill. Westerham Hill, 440560. 12, Lattice Coppice, Knockholt, 473612, 1962, DL. Cuckoo Wood 448622, DL, 1956. W. of Shoreham. 6, Roadside W. of Chevening Part 474579, DL, 1961. Copse S. of Cudham, 40 pl., 445594, 1962, DL. Betsoms Hill, 430559.

6) Whiting Chalk pit, E. of Greenhithe, 1947. Wrotham Water Downs. Ryarsh Downs, Hb. Lamb 1881 **MNE**. E. of Pennis Wood, DVS Woods. Greenhill Wood, Otford. Crookhorn Wood, Snodland. Upper Halling Hangers, 1960 **MNE**. Wingate Wood, Halling! 697657, DL. Horseholders Wood, 696642, HMP.

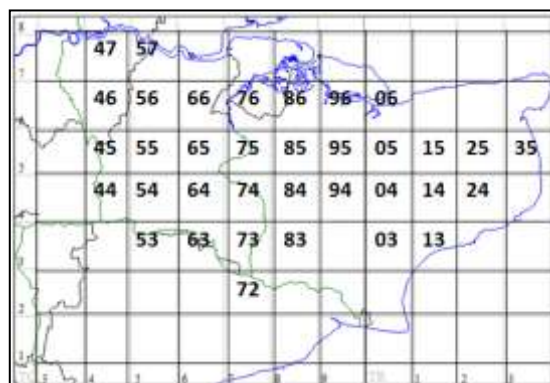
7) Burham Downs. Pilgrim House, Bluebell Hill 62. Bluebell Hill, N of L[owe]r Bell 1910 **MNE** 1947. Boxley Warren **MNE**. Wigmore. 745607 Kits Coty. Rainham Park Wood, 1962, CA Lister. Coombe W. of Detling. Bredhurst Hurst. Purple Hill. Queendown Warren. Hill Wood, Stockbury, 1958 **MNE**. Hollingbourne Hill, 162. Lords Wood: Ridgeway: Monkdown Wood: Monk Wood, BC. Wormshill. Filmer Wood. 023547 S. of Lees Park, C.T. 030558 Wood S. of Lees Park, C.T. Park Wood, Molash. Soakham Downs. Godmersham Downs ES. 94 Hangers NW of Westwell '62. Whitehill, E.S. Soakham Downs, by Pathway[?], N. of Bilting, ES, BJB.

8) 04 Giddy Horn, Wye. 04 Down E of Giddy Horn '62. 04 The Junipers, Wye, 1957, Dr. Pyddoke **MNE**. 05 Rly bank, between Chilham and Godmersham DHK, '44. 15 Larkey Valley Wood, a[abundant]. 05 W. of Penny Pot 089514, Denge Wood. 04 Olantigh Plantation. 04 Broad Downs, Brook ES. 04 Rob Sacks Wood, Wye. Bourne Park, BJB. 04 Hurst Wood, E. of Wye ES & FR. 14 N of Bavinge Fm, copse on chalk '62. E. of Bridge, BJB. Yockletts Bank. Acrise Ladwood 204432 DACL. Snowdown plantations BJB. Covert Lane about Duskins Farm Kingston BJB. 14 Covert Wood. 15 N. of Westwood Fm, Kingston, BJB. Swanton Banks KDR. 24 Woolwich Wood. 24 S. of Denton DACL. 15 Wood ½ m S. of Patricxbourne 1941 **MNE**, 1958 **MNE**. **Not in 34.** Lords Wood Ewell Pay St. VFPD. 15 Copse S. of Burstled Wood, Upper Hardres, 1955 **MNE**. 13 Postling Wood. 35 Plantation on chalk W. of Little Mongeham '62. 25 Ilden Wood. Pine belt, Knowlton, 1958 B.N.

10) 555542 Fawke Common Godden Green 1957 W. Breed. Starvecrow Hill, N. Frith, Tonbridge 600504 W. Breed 1957.

11) 66 Ryarsh Wood, 1946 **MNE**. 65 S. of Wrotham Heath. Copse 683493 E of Hale Street CAS, 1957. N of Knowle Hill 862504, B. Dodds. 86 Kiln Wood, Lenham, 62. 74 Widehurst Wood. 94 Hoads Wood, 955422 ES: FR, 1946-1954 **MNE**. W. of Edenbridge nr. R. Eden, D.P.Y.

12) 04 Cadmans Wood. 03 Bourne Wood 005332, ES.



²⁷⁰ An entry follows referring to 'also lane to W...1953, D.L.', in which several grid references are deleted. One not clearly deleted reads 498605, but this must have been intended to be 605498.

13) 44 '57. 54 Ashour Wood. Southboro' Common Cemy 1944, Miss Sayers. 64 Waterworks Wood, Matfield, W.H.P., 1933 **BM**. 83 Rogers Wood, Biddenden. E end Sissinghurst Park Wood, 1956, L.W.N. 53 Tunbridge Wells, 578381, 1 infl., 1962, E. Shorrocks. 73 SE of Louise Lake, Bedgebury Forest, 1945: 1955. 63 Kippings Cross, 1946. 73 Angley Wood, 1957 **MNE**. Blackbush Wood, Goudhurst, D.S. [nr. High Rocks, 1817, W.J. Hooker Price **BM**.]

14) 83 Breeches Pond, 1947. 73 Hawkhurst 1949. 82 Comb Wood, Wittersham 1964.

16) 1 pl. Paraker Wood, Horn Street; 2 pl. on Lake Island, Brockhill 1957089 LJM.²⁷¹

E. leptochila (Godfery) Godfery

15

Narrow-lipped Helleborine

Native. In two woods on the chalk in 8) in hornbeam-ash coppice: extremely rare. The Kent form has a wider epichile to the lip than the Surrey plant.

Very rare, in 3 localities on the chalk in Surrey, and in one locality in W. Sussex; unrecorded for Essex and for Pas de Calais, but now known in seine-Maritime (Forêt d'Eu) so it may be found in N. France.

8) 25 Ileden Wood, Kingston F. Hyland: J. Jacob: BJB & FR, 1939!, 20 pl. 1953, 1960! **MNE**; 214515. 64 spikes, 1963, H.M.W. c.1980, E. Philp. 24 Woolwich Wood, Womenswold, c.234487, 1955, BJB, R.G. & FR **MNE**: 1956. Now destroyed. Alkham, E. Philp.

E. phyllanthus G.E. Smith **E. vectensis** (Godfery) Brooke & Rose

15, 16

3/52

Native. Beech plantations & a disused pit on chalk, usually among ivy in heavy shade: extremely rare: 6) & 8). Very rare in Surrey and Sussex, unrecorded for Essex and N. France.

6) 56 Beech plantation between A.225 and Rly., S. of Eynsford, Mrs Denton: 1956, 1958, plentiful from 534647 to 533642! **MNE**. 121 pl. 1957, DL. 60 pl., 1960, DL. 66 pl. 1962, DL. 57 Great chalk pit, NW of Horns Cross, F.r> & K. & A.G. Side, 1962, **MNE**.

8) Rubery Down, Womenswold, J. Jacob (as *E. leptochila* Godfr. in BEC '33 Rep, 543.): BJB & F.R., 1939! (then described as a species distinct from *leptochila*): 13 plants, 1946 **MNE**; 1 pl. 1954, DACL. 8 spikes, 1955, Mrs B. & J. Gurr.

[E. atrorubens (Hoffm.) Schult.

This species has been reported for Kent, certainly in error; but it exists on hot S. facing open chalk slopes in Pas de Calais (Hesdin) and, more plentifully, in the Somme Valley. Our northern British plants may be a different ecotype.]

[E. mülleri Godfr. Occurs in Pas de Calais (Desvres) and in Somme (Abbeville) in Woods on chalk, so may be found in Kent sometime.]

Neottia Ludw.

N. nidus-avis (L.) Rich.

15, 16

31/52

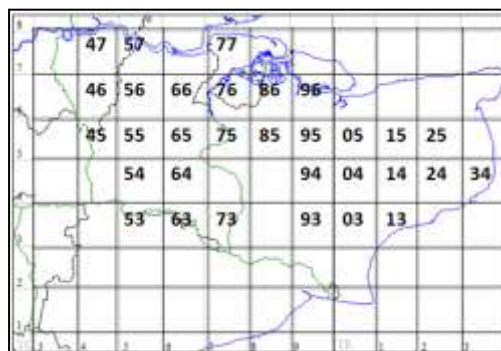
Native. A saprophyte of humus in woodlands, mostly beechwoods on chalk: locally common in 5)-8), rather rare off the chalk but widespread, and in all parts of Kent except the marsh districts 2), 4) and 15) and Thanet 9).

Frequent on the North Downs in Surrey, and in the South Downs beech woods in W Sussex and Hants: rarer in E. Sussex, very rare in Essex. Frequent on chalk in N. France.

1) [Abbey Wood, MNHS, 1861, **MNE**.] Near lakes, Holwood Park, 1959, RAC. 47 Sundridge Park, J. Lidstone, 1948. 57 Joydens Wood, R.A.B. 56 Farningham Wood, SW part, on Thanet sand, 1950: PCH. **47,57**

3) 05 Wood at Upper Ensinge, DHK 1945.

5) 46 High Elms 446624. Cuckoo Wood, Downe 446629, '55, DL. 46 Darwins Bank, Downe, 1946-62 **MNE**. 46 Lattice Coppice, 1948-62, 473612, FR, DL. 513617, Beech Hanger W of Shoreham, 1945 **MNE**, DL 1953/6. 45 beech wood Chevening Park 486587, DL '55 & '62. 55 Beech hanger above A.21, Polhill, 1937→. S. of Pratts Bottom 474616 K. Marsh. Down NW of Westerham 1951, J. Bedford. **45,46**



²⁷¹ An entry which apparently post-dates the chart of 10k square records.

- 6) Row Dow Hill, Otford, c.23, 540595, 1957, DL. 2-300, Dunstall Priory Wood, 530619, 1957, DL. Fawkham, F. Swan. Woods E of Magpie Bottom PCH, DL 545605. Preston Hill in hanger PCH. Greenhills Wood C. Fitzgerald: 1955 **MNE**. Whitehorse Wood 663620 DL. 66 Upper Halling Hangers, 1943→. 66: 695655 Wingate Wood, 1944→: PCH, 1954, D Lang. 698690 Cobham Golf Course under beech 1954. Great Crabbles Wood '47. Knockmill Wood on chalk, 1949. Wood E of Dode 1946. By A.227, NE of Wrotham. Hanger above Wrotham Water 1937-61. Forty Acre Shaw 1952 DL 663620. Wrotham Hill, Labour-in-vain. 55, 56, 66, 77
- 7) Bluebell Hill 755606 B Carder. 75 Boxley Warren, 1882 E. Bartlett **MNE**. 86 Purple Hill, Bredhurst: 1942-62. 86 Top of Queen Down Warren, 1938. 86 Rainham Park Wood, 1952-54 **MNE** (now destroyed). Kettle Hill Newnham. 85 Beechwood W. of Wormshill, 1942. Oak Hill Painters Forstal HMW. Downs N of Bilting DHK. 94 Hangers NW of Westwell, '62. Challock Forest Centre ES. Squirrels Wood 1945. Horsted Valley BC. Lords Wood BC. Monk Wood 738643, BC. Monkdown Wood BC. 86: 827600, Longreach Wood, Stockbury 1954 **MNE** 1960. 86 Hill Wood, Stockbury, 1960. 95 Wichling Wood, 1949 **MNE**. 95 under Beech on chalk, Filmer Wood, 1949-1962 **MNE**. 96 Covett Wood, 987603, DL. 95 Putt Wood HMW. 96 Syndale Wood, Ospringe, 1956 **MNE**. 96: 980602 Sandbanks Wood, Ospringe (NE of *Scandix* field). 05 Park Wood, Chilham. 94, 75, 85, 95, 76, 86, 96
- 8) Penny Pot Woods DHK. S end Gorsley Wood, Bishopsbourne, LWW; BJB. Wood E of Denton, Miss DACL. Covet Wood nr. Hearts Delight, Kingston BJB. Watertower Wood BJB. Minnis La, River, KDR. Lords Wood, Jane Hyde. Beech Plant[atio]n E of Knowlton 1955 **MNE**. Ileden Wood BJB. Beech pl[antation] top Rectory La Barham BJB. Puckland Wood DACL. 04, 14, 24, 34, 05, 15, 25
- 10) Wilderness, Seal, under *Castanea*, 1956, B. Smith.
- 11) Basted in Wood, Miss Nisbett. Horish Wood, Detling, 1938. Wood S. of Mereworth W of B2016, 648543, B. Prowse. [Allington Woods, Otham H.L. Lamb 1880 **MNE**] [Hermitage Wood, Barming, 1894, H. Lamb **MNE**.] [Linton, 1897, D. Kennard **MNE**.] *Castanea* coppice N. of Coxheath.
- 12) Willesborough Lees, W. Wood, 1955, CNP. Orlestone, DHK 1946. 65, 03
- 13) 53 Stone Cross Gill, Ashurst 518381, 1958 CAS. 64: 614429 S side Pembury Walks AG 1957. 64 By A.21, Pembury S. of Yew Tree Fm, 1950 in full sun **MNE**. 63 Near Drive, Scotney Castle, 1961, KEB. 64 Wood E of Kippings Cross, 1946. 54: 502473 Roadside coppice W. of Chiddingstone 1953 **MNE**. 73 Marshy place nr. Combwell 1898, J.S. **TLS**. 73 c[om]p[artmen]t. 52, Fowlers Gate, Bedgebury Forest, 1961, W.J. Davies. Batts Wood, Goudhurst, W.J. Davies, 1957. 53, 63, 73, 54, 64
- 14) 93 Cole Wood Woodchurch ES. 93
- 16) Sandling Park, 1961, Major Hardy. Thorn Wood (Gault) Postling Wents, L.J.M. 13

Listera R. Br.

L. ovata (L.) R.Br. 15, 16 44/52

Native. Woodlands of all types on all more or less base-rich soils, from Alder carr to beechwoods on chalk: grassland, scrub, and old orchards: very common except in the Marsh districts of 2) and 15), which are almost devoid of shade: certainly our commonest orchid, frequently common in Surrey and Sussex, more local in Essex (mostly on Boulder Clay in N.W.): common in Pas de Calais.

- 1) Wood near Lake, Holwood Park, 1954, **MNE**. Ruxley pits, S&S. Abbey Wood, 1954, G.A.M. Chislehurst, W.C.R.W. Farningham Wood, 1949. 47
- 2) 87 Copse, E of Fenn Street, 1955 **MNE**. 07 Warden copse.
- 3) Oldridge Wood, 1949. Dengrove Wood. Calcott Hall Wood, Sturry, 1955, Jane Hyde. 06, 16
- 4) 35 Willow plantation, Hacklinge, 1946. 25 Copse, Wingham Well, 1948 **MNE**. 25 Marsh Sallow Carr, W. of Wingham, 1949. 25, 35
- 5) Downe Golf Course 428601. Darwins Bank, Downe. Lattice coppice, Rushmore Hill, PCH, FR 473612. Andrews Wood 507619, 503622, Badgers Mount, PCH. Hill Park Westerham 428562. Wood W. of Shoreham, 1945. Wood S. of Ch., Cudham. Cuckoo Woods Downe, PG & R Edwards '57. Mollards Wood 402591 RAC. Salt box 408605, 61, DG. Chevening Park, 1951, **MNE**. The Larches Farnborough 200, 433635, 1954, DL. Pratts Grove, 477618, DL. Newbarn S. of Cudham 445594 DL. S. of Pratts Bottom 474618. 426577 W of Nash Hill RAC. 46
- 6) 67 Darenth Wood, PCN. 57 Swanscombe Pit, 576750 FR: DL. 67/77 Great Crabbles Wood, Shorne, 1944-53 **MNE**. Magpie Bottom 541612 & 545607. Woodlands Hill 592598. Otford, Greenhills Wood. Whitehill, Shoreham. S of Vigo 630600. High Castle Wood. Romney Street. Knockmill, wood on chalk, Hartley Wood. S of Meopham D. Friend. Wrotham Water Downs. Chalk pit above Trottiscliffe, PCH. Below Crookham Wood, Snodland. Upper Halling Downs. Wingate Wood. North Wood, Cuxton, FR '44: PCH. Vigo Hill, above. Pilgrim House Trottiscliffe 634609, DL, 1953. 56, 66, 57, 67, 77

- 7)** Chalk pit W of Borstal, 725665, DL. Burham Downs. Pilgrims View, Bluebell Hill, 62. Bredhurst Hurst 1944 **MNE**. Purple Hill. Queen Down Warren. Squirrels Wood Stockbury. Hollingbourne Hill. Downs NE of Cobham Fm Lenham. Hangers NW of Westwell. Soakham Downs. Boxley Downs, 1882 **MNE** E. Bartlett. Detling, NW coombe, '62. Lords Wood, S. end, 769622, DL. Wrinstead Court, KSJ. Gorham Wood 855589, DG v[ery] a[bundant]. Wichling Wood. Down in Filmer Wood, 1949-62. College Wood, Newnham. Down opposite Putt Wood. Covett Wood. E of Whitehill, Ospringe. Spuckles Wood (loam & chalk), Stalisfield, 1962. Kennelling Wood (chalk). Park Wood, Chilham. Down N of Dunn Street, ES. Challock Forest, ES. 94, 75, 85, 95, 76, 86, 96 98, 76, 03
- 8)** Larkey Valley Wood. Hurst Wood, Hassel St, Wye, 1961, CAS. Olantigh Plantation. Longport, Crundale. R[oa]dbank N of Hunt Street, AGS 091489. Mystole, Chilham 088533. Penny Pot. Juliberry Downs. Crown Down Wood 072468. Brook hillock, 085437 **MNE**. Devils Kneading Trough, Brook, rare '62. 100's, Down N. of Podlinge, '62. Copse N. of Bavinge 62 (chalk & loam). Wood W. of Misling Fm Elmsted, '62. Yocketts Bank, 1962. Parkgate Down Elham 1955 **MNE**. Clavertye Wood, Elham 1955 **MNE**. Tolsford Hill. Postling Downs. Downs NW of Newington DG Stanford. Copse N. of Bavinge 62 (chalk & loam). Spong Wood RAC. Downs N of Ch, Crundale, 1949 **MNE**. Lynsore Bottom. Iffin Wood. Gorsley Wood. Stelling Minnis, on clay '62. Copse S. of Hunts Wood/Hunts Wood Upper Hardres '62. Spong Wood. S of Chilton. Swanton Banks, Lydden 1950 **MNE**. Reinden Wood (chalk) 62. Copse S. of S. Alkham '62. Caesars Camp. Abbots Cliff. Lady Wood Capel RAC. Postling Wood 145403 HMW. Juliberrie Chilham (extra labellum) 1946 WJLS. Puckland Wood '62. Stafflands Wood '62. Oak Wood on chalk, E. side Goodnesstone Park, '62. Hall Road, Swingfield, 62. Down NE of Asholt Wood BW. Lords Wood, Jane Hyde. 23, 04, 14, 24, 34, 05, 15
- 10)** Westerham Wood (82!). Scords Wood. Darenth Meadows, PCH. Whitley Forest, RAC. Hills Wood Kemsing (Gault) 563585 CAS. S. of Bessells Green. Dry Hill [?]. Wilderness, 1957, BFC Senaitt. 45, 55
- 11)** Ryarsh Wood 1936 **MNE**. By A20, Larkfield. Ragstone Quarry S. of Preston Hall, 1945 **MNE**. Broadhoath Wood S. of Stone Street (Ragstone) 1950 **MNE**. Kiln Wood Lenham (loam) 62. Park Wood, Boxley. Birling Marshes. Horish Wood. Longham Wood. Snarkhurst Wood. (Oaken Wood 1883 H. Lamb **MNE**) Copse E of Knoxbridge, Staplehurst, 1963, Mrs EM Kelly. 44, 54, 64, 74,, 84, 65
- 12)** Hoads Wood. Copse on Gault SE of Lenham. Cadmans Wood 082429 - 079433! RAC. Hothfield Common, on clay patch, 1948 **MNE**. Cuckoldscombe 1995! 82, 53, 63, 73, 83, 93, 03
- 13)** Stone Cross Gill, Ashurst, 518381, 1960, CAS. Ashour Wood. Brookhurst Wood Southborough GB Shaw. Penshurst Park, H.V.Wood. Rly bank W of T. Wells West Sta[tion] CAS. Pembury 636415, M. Boyser. Scotney Castle, PCH. T[unbridge] Wells Common, CAS. Finchcocks 1898 JS **TLS**. 13
- 14)** (Finchcocks, Goudhurst 1898 J. Stirling **TLS**.)²⁷² Knock Wood E of Tenterden! RAC. Frax[inus] plant[at]io[n], Cole Wood, Woodchurch, ES. Shirkoak Wood, etc.
- 16)** Postling Wents. Coombe Wood, Etchinghill BW.

Spiranthes Rich.

S. spiralis (L.) Chevall. 15, 16 32/52

Native. Dry short grassland, frequent locally on the chalk, rare and scattered elsewhere, but often abundant in its localities. It sometimes appears suddenly in quantity on garden lawns. Frequent in Surrey and Sussex on the downs and in the weald, very rare in Essex, frequent in Pas de Calais.

- 2)** 07 Warden Cliffs. 07
- 3)** 16 23 infl., grassland, Duncan Down, W. of Benacre Wood, Whitstable, 1961, H.M. Wilks. 16
- 4)** 35 [nr. Sandown Castle, 1833, Miss Harvey, Hb. FJH.] Fixed beach opp. Walmer Castle, 1957, B.N.
- 5)** 45 SW of Biggin Hill, RAC 46. E. Coombe, Chevening Park, 1955 D. Lang 488587 to 487586. '55, 16 pl. '56, 17 pl. '60, 11 pl. 45, 46
- 6)** 55 Otford Mount, Miss C. McD, 1962. 66 Birling Downs, 1946, F. Forsyth: 1946-58! **MNE**. 76 Cuxton chalk pit, 1 plant, 1945 **MNE**. 77 Cliffe chalk pit 728766, 1945-62, abund[ant] **MNE** (100 pl., 62, DL). Lawn, Strood, R.D. English, 1963. 55, 56, 66, 76, 77
- 7)** 75 NE of Boxley, below Pilgrims Way, F.Forsyth. 86 Queen Down Warren, 1954-1961! **MNE**. 96 Down opposite Putt Wood, Ospringe! 1956 **MNE**, 30 spikes HMW. [95] Newnham, J.M. Hubble. Throwley Golf Course, C.T. 95 Down above Cobham Farm, Lenham, 1950 **MNE**. 05 Soakham Down, Godmersham, JHPS. 86 Down N. of Magpie Fm, nr. Bredhurst, 1962, Mrs. B. Dodds. 94. 94, 75, 95, 05, 86, 96
- 8)** Down above Winchecombe Fm, Crundale, '55, BJB. 04 Wye Hill Race Course, Wormald. 14 Down in Covert Wood, Miss DACL, 1945: BJB. 24 Above Coombe Fm., Dover, Miss DACL & FR, 1945 **MNE**. Temple Hill, KDR.

²⁷² Record duplicated, see above.

AdderDown, T[emple] Ewell, RDR. 13 Downs N of Hythe, Mrs M.J. Comyn. 15 Charlton Park, 1939, BJB. 25 Barham Downs 1946, BJB [Snowdown, BJB.] 26 Valley E of Castle, 1955, ECH Haes. 34 East Cliff, Dover, 1946, BJB: 1962, Mrs B. Dodds. (34 S. Foreland, Mrs B. Dodds. In sunken hollows, 1962. 1898, Rev. G. Waterman **MNE**.) Langdon Bay, KDR. ECH Haes, 1955. spur edge of cliff nr. juniper. Sugarloaf, Folkestone, BJB. Waterworks Folkestone, V.F.P.D. Arpinge Down, P. Gay. 13, 23, 04, 14, 24, 34, 15, 25

9) 36 1 pl. waste g[roun]d, Broadstairs, R.W.W., 1947. 36

11) golf links, Bearsted, 1910, J. Ramsay **MNE**, 1912, H. Elgar. [Staplehurst, WHP senior.]

12) Golf Course, Ashford, ES. Pasture, WestenhangerSta, LJM.

13) 54 Southborough [..?] 585415, 1956, CAS. Penshurst Park, Dr. L.B. Langmead. [Matfield WHP senior.] 53 Lawn, Molyneux Park, T. Wells, 1947, R. Crowson **TLS**. 53 Hawkenbury Cemetery, v. abund. to 1962, C.A.S. (in vc.14 Kent). 73 Rammell House & War Meml., Cranbrook, DS 1956. [73 Goudhurst, 1897, J.S. **TLS**.

14) 83 Benenden, Mrs A.G. Side. S. of Mount le Loe[?], 826385, Miss D.E.C. Williams.²⁷³ 83 Lawn, Rolvenden village, 1960, Miss E. Davies. [Swattenden 1893 AW Hudson.] 93 Small quarry NW of Brook Street, Woodchurch, 920343, C. Skinner; 1955!

15) 01 Dungeness, by Long Ballast Pit. 02 Romney Warren, on Golf Links.

16) Sandling Park, Major Hardy, 1961.

53, 54, 73, 83, 93, 01, 02

(*S. aestivalis* (Poir.) Rich. occurred formerly in the Pas de Calais.)

²⁷⁴(*Goodyera repens* (L.) Br.

This was discovered in a pine plantation on the le Touquet dunes, Pas de Calais, on a BSBI Expedition in 1959: otherwise it is known no nearer than Norfolk.)

Liparis Rich.

[*L. loeselii* (L.) Rich. [15]

Extinct. Formerly in a calcareous fen: extremely rare. In Britain the type is only found now in Norfolk and Suffolk, where it is rare and local, the var. *ovata* occurs plentifully locally in the dune slacks of S Wales. Still in 3 localities in Pas de Calais, abundant in 2 of them (Dune slacks at Beach Fen E. of Cucq), rare in one (Ambleteuse dune slack).

4) Boggy ground about Ham Ponds, O.B.G. 1802. (In Fl. K. It is reported that Duthie saw a specimen in Herb. Univ. Edinburgh labelled "Kent".) Ham Fen was formerly a very wet calcareous mossy fen, and ponds remained in this state as late as 1947; but a general improvement of drainage of the area by lowering the level of the North Stream has rendered it very unlikely that *Liparis* will reappear now in the area, although much of the fen has never been disturbed by cultivation of any kind.

Hammarbya Kuntze

²⁷⁵[*H. paludosa* (L.) Kuntze) [16]

Long extinct in Kent: formerly in acid bogs, extremely rare.

13) Nr. Rifle Butts, Frizley Bog, 2m. N. of Cranbrook, E.W. Howell, per A.W. Hudson; Fl. K. Frizley Bog still exists in part, but probably owing to the enclosure and cultivation of the former acid heathland of Cranbrook Common, it is now poor fen with rank vegetation and quite unsuitable for *Hammarbya*. An Ancient record also exists for Tunbridge Wells (*Ray Syn* ed.3, p385 and "Tun Wells Kent", E. Jenner, Hb. FJH). It may have been widespread in the Weald and on the bogs of the Folkestone Sand in ancient times, but we have no direct evidence. It existed in a valley bog in Ashdown Forest, E. Sussex until at least 1952, and my still reappear there. Apparently extinct in Surrey: unrecorded from Essex and N. France: but still locally abundant in the New Forest.]

Herminium R. Br.

H. monorchis (L.) R.Br.

15, 16

9/52

Musk Orchid

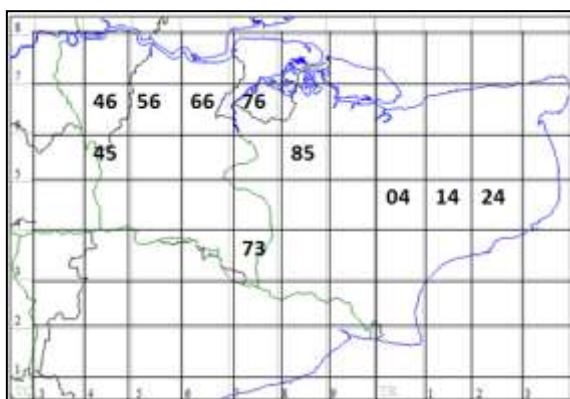
²⁷³ The manuscript is difficult to interpret at this point, and the entry may be tie in with one referring to meadow on Wad[hurst] Clay, Schoolham, Miss A. Graseman 1947.

²⁷⁴ This entry was placed after *Neottia nidus-avis* in the manuscript.

²⁷⁵ This entry was placed before *Liparis* in the manuscript.

Native. Chalk grassland in short turf: well distributed and locally abundant, but not common, except very locally. 23 localities. In several places on chalk in Surrey, and frequent along the Sussex Downs: unknown in Essex: very locally frequent in Pas de Calais.

5) 439613 Down N. of Darwin's Bank, Downe, 1945-50: to 1955, JEL. Not seen since, but it may reappear now that the turf is kept raked. 505603 Downs above Tunnel mouth and to SW, Polhill, 1946-62 **MNE**. 488587 Chevening Park, NW Coombe, 1951-55 **MNE**, FR, DL. 411603 Down SW of Saltbox, Biggin Hill, R.A. Clarke.



45, 46, 56

6) Downs above Wrotham Water, abundant, 1945-62 **MNE** 626604 – 629606 (100 '54, 40 '55). Chalk pit W. of Pilgrim House, Trottscliffe, abundant, 1958, 1962, 626604, 629606. Ch[alk] Pit and on Downs N. of Church, Trottscliffe, abundant, 700 pl. 1955, O.D., 1961, 646612. Birling Downs, chalkpit, 677624. Downs N. of Crookhorn Wood, Snodland, abundant 1942-54 **MNE**, 678629. Downs S. of Greatpark Wood, Snodland, 677633. Chalkpit, Wickham Cement Works, 1¼ NE of Cuxton Station, 1949-53 **MNE**, 725677. 66, 76

7) [Bluebell Hill, H. Lamb, 1899 **MNE**: not recently observed.] W side A.229, abund[ant], till 1991 when destroyed in roadworks. Down above Allington E.P. 85

85 Thurnham Castle, 1961. 85 Hollingbourne Hill, on knoll near road to E, Miss M. Amos; 1957-62 (1964!) **MNE**. [NW of Westwell, 1902, Lady D: 1939, E. Scott: not seen recently.] [Ospringe Parsonage Meadows, Pl. Fav; now extinct.] [Boxley, J. Rayer MS.]

8) 04 Downs E of Longport, Crundale, abundant, E. Scott: 1947-62! **MNE**. by Juniper roadside, Longport, REW: ES '54. [Downs S. of Crundale Church to about 1945, JHPS, etc.: now apparently destroyed.] Wye Downs NNR. 04 Downs SW of Pett Street, Crundale; not seen 1986. [Newington, J. Jacob.] 14 Downs NW of Podlinge Farm, Miss W. Frost, 1952, 1 plant 1962!, gone 1986. 14 Little Gains 127461, Elmsted, R. Clarke. 14 Stowting, Downs W. of road up hill, 1947. 14: 172473 SW of Dane Farm, Bladbean, 1958 D. Stainer. 14: 178485 Down in Covert Wood, 1950, FR & RGW **MNE** FR 1985, 1992 JP. 14 Down, Parkgate, Elham, 1955-61, 1992! abund **MNE**. 14 Down E of Elham, CPSK; 1946! 24 E of Sevingfield, Miss V. Day. 206452 Tappington. 24 S of Denton, 1946, 30 pl. Miss DACL, 1 pl. 1948, DACL. 04, 14, 24

Platanthera Rich.

P. chlorantha (Custer) Reichb. 15,16

Native. Woodlands and scrub on chalk and on base-rich clays and loams: widespread and fairly frequent, and locally in abundance. Unrecorded in the marsh districts 2), 4) and 15), and rare in 1), 13), and 14).

Fairly frequent in Surrey and Sussex and locally so in Essex: common in Pas de Calais, where it often occurs in open chalk grassland.

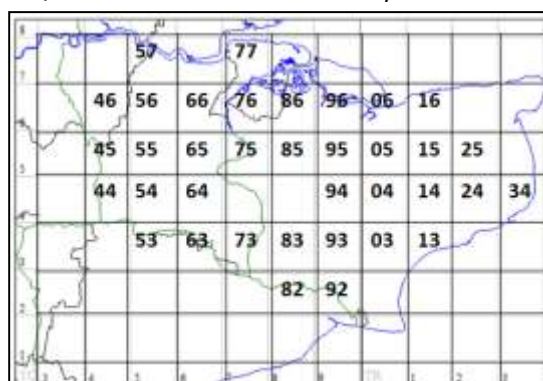
1) Darrick Wood, 443652, 3 infl[orescences] 1957, 5 infl[orescences] 1958, F. & C. Swain. 46 St Julians Wood, Holwood Park 1954. 46

3) 16 Calcott Hill Wood, 1955, Jane Hyde. Old Gravel pit S of Herne c.179654, 1951, REW (& SP) 06, 16

5) 447623 Cuckoo Wood, Downe, 1947, '48. S. of Hangrove, Downe, 438604. Lattice Coppice '48. High Wood Cudham '48. Wood E. of Berrys Green, Cudham, 1962, 443591. Wood 3/4 m SE of Cudham Church, 1949: 1958 **MNE** 447589. 1 pl. Copse, Fox's Garage, Badgers Mount, 1955, D.L. 493625. 445594 copse S. of Cudham Ch. '62 DL. SW of Biggin Hill, RAC. W. of Norheads 403591, 1957, RAC. Betsoms Hill NW Corner, RAC.

6) [Dartford, A.C. Tagg.] 57 Darenth Wood, N end, 1947 **MNE**. Magpie Bottom, 545614 AGS. Greenhills Wood, Mrs G. Fitzgerald. Nr Wouldham steps, E. of Meopham, D Freed, 1947! 1948. Wingate Wood, 7942. 66 Ridge Wood, S of Meopham 1948 **MNE**. Chattenden Wood. 56, 57, 66, 77

36/52 Greater Butterfly Orchid



- 7) Horsted Valley, BC. Lord's Wood, BC. 86 Bredhurst Hurst. Copse E of Scragged Oak, 1965. 85 Hollingbourne Hill. S of Rumsted Court Hucking '61. 86 S. of Stockbury. N of Divan Wood. Down N of Dunn St, 1980, ES. W side Walderslade Bottom, BC. Monks Wood, BC. Bridge Woods N end, BC. Hemsted, BC. NE of Bredhurst Hurst, BC. SW of Bredhurst Church. NE of Lit[t]le Budds, '50. Gorham Wood '50. 95 E. of Skooks. 95 SW of Hockley. S. of Holbeam. 95 Tong Green. 95 Kennelling Wood, Stalisfield, f[requent] on chalk 1962. Soakham Down R. Th. Challock forest centre ES. [Detling, 1915 MC Tapsfield, **MNE**.] Stock Wood, Forstal, 1984. Lynsore Bottom. Fryarne Park Wood. 95, 05, 76, 86, 96
- 8) Wood SE of Crundale Ch., Mrs B. Long Plantation, Olantigh. Hurst Wood, Hassell St., Wye, 1961, CAS. Whitehill Wood, RAC. 889514 W of Penny Pot Woods, Mrs B; AGS. Woolwich Wood, 1965. Duskins, Kingston BJB. Podlinge Farm Wood, 48. Postling Wood, Mrs D. Elwin. Down W of Postling Wood 1954 **MNE**. Frandham Wood, River R. Chantry. Lords Wood, T[emple] Ewell, 1949 **MNE**, 1961 HMW. Sutton Downs, 1955. Farncombe Wood, Wye 1959. Longport, Wye, BJB. Gorsley Wood BJB. Denge Wood, SW of Petham 1949 **MNE**. Yockletts Bank, Waltham 1948-62 **MNE**. Sponge Wood MJ Comys. N of Westwood Fm, 1950 LWW. Blacklands....Lyminge, '50. Atchester Wood LWW: 1955 R. Chambers: 1962! E of Acrise, 1949 **MNE**, 1950. F[requent] Reinden Wood (chalk) '62. Copse S. of Alkham 19621. S. of Chilton 279432 DMCC. Covert Wood, 1998. Hunts Wood, Up[er] Hardres. Eastling Wood Waldershare 1959 **MNE**. 14, 24, 34, 15, 25
- 10) 45 Westerham Wood, 1947 **MNE**. 55 Cockney's Wood, Kemsing on gault. 45, 55
- 11) 66 Ryarsh Wood 1936-'45 **MNE**. 75 Horish Wood 1949 **MNE**, 1963. 85 Snarkhurst Wood. 85 Warren Wood, Leeds. 65 Mereworth Woods, H. Lamb 1893 **MNE**; 1960! (Swanton Valley). 55 N. of Horn's Lodge Fm, N. of Tonbridge 588505, 1953-54, DL. a[bandant] Starvecrow Hill, 600505, 5890504, 1957 R. Breed. a[bandant] Coldharbour, Tonbr. W. Breed, 106 infl[orescences] 1958. Dene Park, 40 pl, 1958, W. Breed. 54 Ringshill Wood, by stn., Hildenborough, CAS, 1960. 54 R[oad]side copse nr. Coles Fm. N. of Chiddingstone, 502474, FSEF & FR, 1953: **MNE**: 1957, CAS. nr Nizels Hoath EP. 44 Warren Wood, Hever 1947, Miss D. Swan. 65, 75, 85, 44, 54, 64
- 12) (Gault) Cadmans Wood, 1946 **MNE**, 081429, 078433, DL, '57. E of Troy Town. 94, 04
- 13) Longrope Wood, N. Chalmers Hunt. 54 Ashour Wood, 1944. 53 Stone Cross Gill, Ashurst 518381 etc. 1968, CAS. Twysenden Wood, Goudhurst, 1960, L. Davies. Vauxhall Lane Wood Southborough, HNC. 63 Hayden Wood, Lamberhurst, 1940 JRW. 64 By Pembury Tonbridge Rd., 612422, M. Boyser. = A.21 bank S. of Yew Tree Fm CAS. Wood clearing Pembury, Coltshill, 6445, M. Boyser. Frittenden E.O. 8040. 53, 63, 73, 83, 82, 92, 93
- 14) 93 Knock Wood, E. of Tenterden! RAC 1958.
- 16) 13 Postling Wents, in g.w.s. on gault, 1945 **MNE**, 1954 03 Coombe Wood, Etchinghill Mrs B.W., 1948. Sandling Park, 1961, Major Hardy. Wood N of Aldington Knoll, LJM, 1958, 1954! Asholt Wood, VFPD. 03, 13

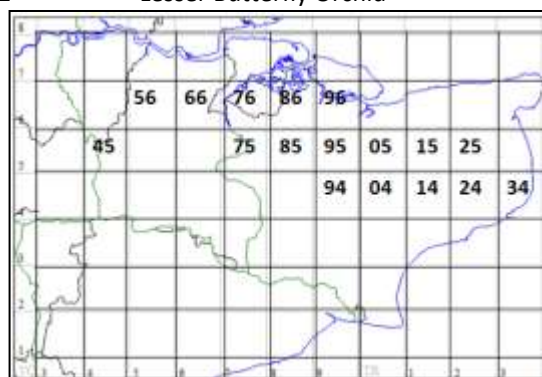
P. bifolia (L.) Rich.

15, 16

15/52

Lesser Butterfly Orchid

Native. Woodlands, mostly coppice, but also of beech, on chalk or on overlying loam, also on the Gault. Very rare in W. Kent in two localities in 6): fairly frequent in E. Kent in 7) and 8). Very rare in 11) on Gault. Formerly in the acid bog at Keston, as the ovate-leaved form. Our normal Kent plant has elliptical-lanceolate leaves. Now very rare in Surrey, occasional in Sussex, extinct in Essex, rare in Pas de Calais.



1) [Keston Bog, to c.1930, C. West.]

5) Betsoms Hill, RAC, 1958.

6) 56 High Castle Wood, 1949, 560629. 56 Hog Wood, NE of Romney Street 1949 **MNE**. Ridley Wood, 1950. Fawkham Wood, 1950. Cuxton, B.C. 56 Greenhills Wood, rare, Mrs C. Fitzgerald. 66

7) [Boxley Downs 1880: 1888 **MNE**] 86 Down N. of Bredhurst Hurst, 1945 **MNE**. Purple Hill, 1942-53 **MNE**. Hill Wood, Stockbury, 1960. 95 Filmer Wood, Wichling 1949 **MNE**. Trundle Wood Wormshill, 1956. Kings Wood, Molash. 05 Park Wood, Chilham. 05 Hawkins Rough, Chilham, 0654. Horsted Valley BC. E of Walderslade Bottom, BC. S. edge Lords Wood, BC. 86 Potter Wood, Queen Down Warren, 1960, 829630. Copse E of Scragged Oak, 1965. Church Wood, Bicknor, 1952, C.A. Lister. 95 Ash copse, Snoad Street, Throwley, 995527, E.S., 1955. 96 Ash copse Coxett Wood, 1956-1962 **MNE** 987603. Kennelling Wood, Stalisfield, 1964. 95 Spuckles Wood, Stalisfield, 20 pl., 1962. Stock Wood, Frinsted. Valley Woods S of Hockley

R Th. L.....[?] Valley, HMW. 96 1 infl[orescence] Wood NE of Simia field, 1958, HMW. 94 N. of Dunn Street Westwell. Badlesmere 032555 C.T. 76, 85, 86, 94, 85, 95, 05

8) 15 Denge Wood, 1949, 1960, 085521. 05 Downs Wood, Chilham, 1959 **MNE**. W. of Penny Pot 089514 AGS. Above Duskins Fm, Kingston, BJB. 15 Gorsley Wood, BJB. Covert Wood, 1995, OP & FR. 15 Larkey Valley Wood, PGW. 24 S. of Chilton, 1949. 24 Lords Wood, 1949 **MNE**. Woods N. of Waltham Court, 1943 **MNE**. Longport 076485. N of Crundale Ch 082493, 1951, P. le B. 04 Pett Street, 1954, P. le Brocq, 080473. 14 Copse on chalk N. of Bavinge, 1962. E of Whiteacre 1950 (Waltham). 14 Copse S. of Hunts Wood, L[owe]r Hardres (calc loam) '62. 14 Hunts Wood, L[owe]r Hardres (chalk), '62. 14 Atchester Wood, 1955, freq., R. Chambers. 14 Lynsore Bottom BJB. Ileden Wood, BJB. Pitt Wood, Adisham, 1966. 25 Watertower Wood 210525, Adisham 1955 **MNE**. 34 Eastling Wood, Waldershare 1959 **MNE**. Woolwich Wood 1957. Iffin Wood, 1959 (also EP, 137535). Blacklands Carvet Wood, Lyminge 147417, 50. [Maidstone, MNHS, 1881 **MNE**.] W of Martin E.P. **04, 14, 24, 34, 15, 25**

11) 75 Horish Wood – on Gault, 1943 **MNE**.

75

²⁷⁶ **Anacamptis** Rich.

A. pyramidalis (L.) Rich. 15, 16 Pyramidal Orchid. 25/52

Native . Chalk grassland and scrub, extremely common and locally abundant in 5)-8); also locally plentiful on fixed dunes in 4), and rarely in 15: occasional in old ragstone pits in 10, 11, and 12): as a rare casual in 13), and in 1). Common on the chalk in Surrey and Sussex, rare in Essex: it is, strangely, extremely rare in Pas de Calais (one locality on dunes) and in Somme (a few localities on chalk). In France, it only becomes common much further south.

1) Ruxley pits, S.&S.

4) St. Georges Links, Sandwich Bay, 361576-362581, on fixed dune grassland (pH 7.0), 1905 Elgar: 1945-62, abundant! **MNE**. Ebbsfleet. 35, 36

5) 56 Down W. of Farningham, 1946. 56 Above Cross, Shoreham Downs, PCH. 46 Down S. of Green St. Green 445616, '55. 46 Darwin's Bank, Downe. W. of Northstead Fm. W. of High Wood Cudham 458609. 45 Down S. of Cudham 1949 **MNE**. 46 Downe Golf Course 426605, 429602, DL. 46 Saltbox Hill 409604, DL, 1961. 55 Downs, Morants Court Hill, W. of Pit 1949-61 **MNE**, 508591²⁷⁷. 55 Down above tunnel, Polhill, 1948 **MNE**. The Nower Brasted, RAC. 45 Chevening Park, 1951-61 **MNE**. 45 Down NE of Pilgrims Ho, Westerham 453567. 45 Westerham Hill, 445565. 45 Hill Park, Westerham. Betsoms Hill RAC. 56 Timberden Bottom 504623. 45 E side Norheads Valley, Biggin Hill, 405589, '62, DL. 45, 46

6) 57 Down ½ m. SE of Dartford 1946. 57 Chalkpit N of Craylands Lane, 596750, Swanscombe, 1946 **MNE**, 1956, 200 DL. Rly. Eynsford. 56 White Hill, Shoreham, PCH, 529611, 531607. 55 Otford Mount PCH. 56 NW of Greenhills Wood. 56 Magpie Bottom, PCH, 543611. E of Otford 549496. Down above St Clere, 582588, DL, '52. 66 Downs 1½ m NW of Wrotham 1947 **MNE**. 65 above Hogmore Farm Wrotham 624600, 617596, DL. 66 626604 Wrotham Water Downs **MNE** 629606. 66 Downs W. of Pilgrim Ho., Trottiscliffe, PCH. 66 Down above Trosley Church. 66 Snodland Downs N. of Crookhorn Wood 680630 **MNE**. Hatch Hill, Luddesdown, 675655 AGS. 609597, A20 pit Wrotham DMCC. 56 Pennis Wood, Fawkham 1950 **MNE**. 66 The Warren, S. of Cobham Park, 1946. S. of Gt. Wood Cuxton. Up[pe]r Halling Downs 1941-60 **MNE**. 66 S. of Wingate Wood. 76 Cuxton Rly Cutting to NE. 76 Halling Rly. cutting. 66 Birling Downs 667623 DL. 55, 65, 56, 66, 57 [NOT 67, 77]

7) 76 Wouldham Downs. 76 Pilgrims View lawn '62. 76 Burham Downs. 75 Boarley Warren 1880: 1937-69 **MNE**. Detling Downs. 85 Hollingbourne hill. 95 Foxbury Down, NE of Cobham Fm, Lenham 1945 **MNE**. 94 By Suomi, Westwell. 94 E of Charing Hill. W of Charing Hill REW. [Down N of Dunn St., v[ery] a[bandant] ES, 1950.] 76 Pit W of Borstal, 725665, DL. 86 Queen Down Warren. Purple Hill. 85 South Green Stockbury 850598 DL, '60. Wrinstead Court KSJ. Lordswood. Horsted Valley. SE of Bredhurst. Bluebell Hill. Rainham Park AP Major. 96 Down N. of Putt Wood, Ospringe, 981602, 1960, DL, FR. 05 Park Wood, Molash. 05 Soakham Downs. 05 Godmersham Downs. 94, 75, 85, 95, 05, 76, 86, 96

8) Longport, Crundale. Downs N. of Crundale Ch 1952 **MNE**. Crown Downs, Wye, 071466. Broad Downs, Brook. o[ccasional], 62 **MNE** 1995. Brook hillock, 2 infl[orescences] 62, 085437. Stowting Down. Postling Downs. Shuttlefield Fm Down, Lyminge. SW of Danes Fm 175474, Mrs.B. Downs NW of Newington. Castle Hill Folkestone 217382, DL. Downs W. of Folkestone Hill, 1954-62 **MNE**. Crabble Downs. Meadway, River, KDR. Langdon Bay, ECH Haes, '55. Julibery Downs. Downs N. of Winchcombe Fm Crundale. Down N. of Podlinge f[requent] 62. Larkey Valley Wood. Barham Downs. Bishopsbourne (Charlton Park). 25 Brambling

²⁷⁶ This entry is placed last amongst the orchids in the manuscript.

²⁷⁷ The gridreference given is east of the pit, not west.

pit. Parkgate Down, NW of Elham 1955 **MNE** 1995. Woodville Downs, T[emple] Ewell. Kingsdown Golf Course. NE of St Margarets Bay. Free Down. Sugarloaf, Folkstone, 1962. S. of Chilton DMCC. S. Foreland. Dover E Cliff. 04, 14, 24, 34, 15, 25

10) 45 Dry Hill Ragstone Pit Chevening 496549 DL.

11) 65 Grassy Bank in garden, S. side A.20, Ditton, 1946-48 (F[olkstone] sand). 65 Ragstone pits Borough Green (S. of), Miss Nisbet. 65 Ragstone pits w of Offham, 1954.

12) 04 Mersham Ragstone Quarry, by A.20, 1946.

13) 53, 1 plant among *Aegopodium*, Broadwater Lane, T[unbridge] Wells, 1957, KEB.

53

15) 02 fixed dunes, Greatstone, 1947.

02

²⁷⁸(*Pseudorchis albida* A.Löve & D.Löve)

[15]

Possibly native, but if so long extinct.

8) Lyminge; gone by 1873, Wollaston: Fl.K.

This could have been an error for *Herminium*, though Wollaston was a good botanist. It was known in Ashdown Forest and neighbouring localities in both E. and W. Sussex until at least 1935, but has not been seen since World War II. The nearest modern localities are in Wales, the Pennines, and central France.

²⁷⁹*Gymnadenia* Hartm.

G. conopsea (L.) R.Br.

15, 16

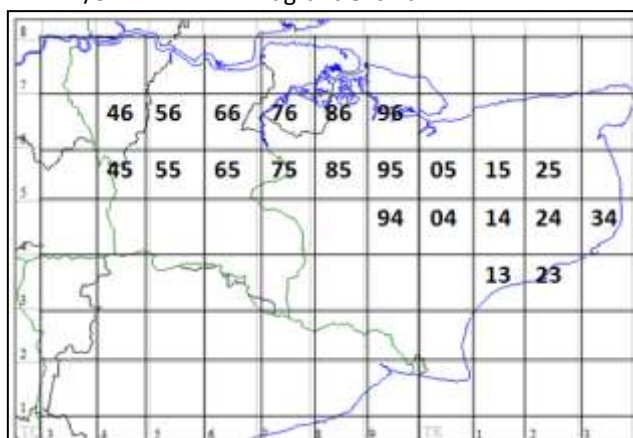
22/52

Fragrant Orchid

Native. Old chalk grasslands, very common and fairly constant, and sometimes in very great abundance. Not recorded off the chalk in Kent. Not now in Dartford-Gravesend area, nor in Thanet.

Common on the chalk in Surrey and Sussex: in Essex now extremely rare (Thurrock). V. common in Pas de Calais.

Mr. M. Chalmers-Hunt reports *Plusia gamma* (Silver y moth) and *Ochlodes venata* (Large Skipper) visiting the flowers of this species at Downe in 1958, but it is not known if pollination was effected.



5) Downe golf course (1) 426605, DL, '56. c.580 Darwin's Bank, Downe, 1962. Pratts Bottom, 1947. Downs below A.21, Polhill, 1949-52 **MNE**. Downs NE of Pilgrim Ho. Westerham 1955 **MNE**. Brasted Nower, RAC. Saltbox Down, 409604, 1961, D.L. [Downe, 1903, 1916, AG Davis **MNE**] NE Coombe, Chevening Park, 1951-61 **MNE**, 488587. From NW of Lusted 409584 RAC. 45, 46

6) SE of Park Wood, Eynsford, 1949 **MNE**. White Hill, Shoreham. Downs SE Shoreham, 530609-531604. Downs E. of Otford. Downs W. of Greenhill Wood & to N, 530609- 531604. Downs N, & NW of Kemsing. Downs 1¼m NW of Wrotham 1947 **MNE**. v[ery] a[bundant] Wrotham Water Down 1936-62 **MNE** 626604 (500, '62), 629605. Pilgrim Ho., Trottiscliffe, 635608. Down N of Crookhorn Wppd. S. of L[owe]r Austen Lodge, 1949. N. of Romney Street (Round Hill). Magpie Bottom 543611, 541612, 542615, 1953 **MNE** c.3000, 1955 c.3000, 1956 c.10,000, 1957 c. 10,000. Down SSE of Meopham Green, 1955 **MNE**. Wrotham Hill. [Dartford AC Tagg.] Edge of High Castle Wood. W. of Hog Wood. 55, 65, 56, 66

7) Upper Halling Downs. 725665 Borstal, DL. Pilgrims New Grounds, L[owe]r Bell, 1962→1998. Burham Downs. 819577 Thurnham. 834569 Broad St. DMCC. Hollingbourne Hill, 1962, 1886 **MNE**. Timbolds Hill, Witchling. 1/2 m NE of Lenham, 1956 **MNE**. Foxbury Wood, East Lenham Downs, 1946 **MNE**. Hart Hill, Charing, DHK. 94 Chalkpit, Westwell. Wouldham Downs. Walderslade Valley, 1951 **MNE**. 829629 Queen Down Warren '37, 62. Down N. of Magpie Fm, Bredhurst. South Green, Stockbury, 1960, 850598, D.L. W. of Worms hill. Down S of Filmer Wood, Wichling. Putt Wood, Ospringe. Down opposite Putt Wood, Ospringe, 980602. Godmersham Downs 1946. Lees Park, HMW. Down N of Dunn St Westwell HMW, '55. 94, 75, 85, 95, 76, 86, 96

²⁷⁸ This entry is placed before *Platanthera* in the manuscript and is there treated as *Leuchorchis albida* (L.) E. May ex Schur.

²⁷⁹ This entry follows *Coeloglossum* in the manuscript and is there treated as *G. conopsea* subsp. *conopsea*.

8) 088533 Mystole Chilham AGS. Downs by the Crown, Wye, 085466. Downs N. of Church, Crundale 1945 **MNE** 1960. E of Longport Crundale 1952-62 **MNE**. Broad Downs, Brook, v[ery] a[bandant], 1962 **MNE**. Downs N. of Podlinge, v[ery] a[bandant], '1962. Downs, Cuckoldscoombe Brook 1955 **MNE**. [Brook hillock, 085437, 1956, 1958 DL & FR.] Stowting Downs. Postling Downs. Cheriton Downs. S & E of Castle Hill, Folkestone, 1000's, 217382, '62. Sugar Loaf, Folkestone. Folkestone Hill, v[ery] a[bandant] on top. S. Foreland. Kingsdown Golf Course, 1954, v[ery] a[bandant] **MNE**. The Lince, Ringwould 1951 **MNE**. Langdon Bay, ECH Haes '55. Juliberry Downs, Chilham. W. of Penny Pot DHK. Downs N. of Winchcomb Fm, Crundale, v[ery] a[bandant]. E. of Eggerton Manor, Godmersham 1949 **MNE**. Hassell St (Albino) DHK. Downs S of Lydden. SW of Dane Fm 172473, KLM B[?] Lynsore Bottom. Bourne Park, B[isho]p[s]bourne, BJB. V[ery] a[bandant] [Breach Downs, Barham, ploughed c.1975.] Downs E of Elham 1950 **MNE**. Parkgate Down Elham 1955 **MNE**, 1998. Bishopsbourne (Charlton Park) 1948 **MNE**. Covert Wood, 1950 **MNE**. Gt Shuttlesfield Farm Lyminge, 1992. SE of Etchinghill nr Arpinge 1998. Arpinge Down NE of Asholt Wood BW →1998. Down E of Pitt Wood, Adisham. Barham Downs 1998. N. of Pean, B.W. above Crabble sports ground, 301426, '62 D.L. S. of Chilton, 279432 DMCC. Downs W. of Woodville, Temple Ewell – a[bandant] 1995, '96. White fls at Crabble. Breach Downs.

04, 14, 24, 34, 05, 15, 25

²⁸⁰**G. densiflora** (Wahlenb.) Camus, Bergon & A. Camus

Fens and calcareous marshes: very rare and probably now extinct.

It occurs in a chalk pit at Offham E.Sussex (C.A. Lister), and in a calcareous bog at Balcombe, E. Sussex, and on chalk grassland (N aspect) at Heyshott, W Sussex (1976), Ditchling Beacon; and formerly occurred in fen at Westbourne, W. Sussex; not recorded for Surrey nor Essex, but in fens in Hants.. On chalk in Pas de Calais, and in fen in Somme.

1) [North Cray Brooks, Hb. Sim: Fl.K.] [Keston Common A.G. Davis **MNE** 1916]

4) [Little Britton, Wingham, FGEK.] Ham Fens, c.1920, G.L. Davidson, the exact site is now completely altered. N end wds, SE of Ham Road (61/3)

6) Bogs...between Northfleet & Thames, Merrett, 1666.]

²⁸¹**Coeloglossum** Hartm.

C. viride (L.) Hartm.

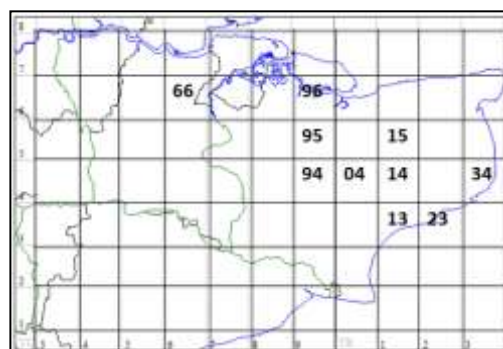
15, [16]

1/52

[8/52]

Frog Orchid

Native. Chalk grassland: formerly in at least 12 localities, now confined to Crabble near Dover, where however it is abundant. Extremely rare and erratic in its appearance in Surrey (3 localities known in the last 20 years): rather common on the Sussex Downs: apparently extinct in Essex: very rare now in Pas de Calais, but still in Nord (Ardennais).



6) [Downs NW of Crookhorn Wood, 1926, F. Forsyth; not observed recently.]

[Downs NW of Birling, M. Atkins, c.1932; not observed recently.]

8) Downs above Crabble sports ground, nr. Dover, J. Jacob: Lloyd, 1946, abundant: 1948-54! and since, to 1962, several observers. Reported in Elham Valley near Barham.

[Formerly nr. Canterbury (Oxenden 1873)] Ospringe

(Blackstone, Pl. Fav.) Folkestone Warren, Ulyett: Sellinge: Horton FGEK: Stowting FGEK: Brook, ESM: Wye, W.R. Jeffrey its disappearance may be due to ploughing and the spread of *Brachypodium pinnatum*.]

Dactylorhiza (Klinge) Vermeul.

D. fuchsii (Druce) Soó²⁸² subsp. **fuchsii**

15, 16

Common Spotted Orchid

47/52

²⁸⁰ In the manuscript, given as *Gymnadenia conopsea* subsp. *densiflora* (Walenb.) G, Camus, Bergon & A. Camus. Francis Rose championed the separation of taxa formerly lumped under *G. conopsea*, certainly at least to subspecific level, and he considered that they could merit specific status (which has since been recognised). Not dealt with in the Flora manuscript is his belief (pers. comm.) that subsp. *densiflora* was present at Parkgate, which post-dates dated *G. conopsea* records in the account (latest, 1998). Subsequent observations have not supported this determination.

²⁸¹ This entry follows *Herminium* in the manuscript.

Native. Woodlands, scrub and grassland on base rich soils, particularly on chalk, clay and ragstone; disused claypits, chalk and ragstone quarries; marshes, fens, meadows, and dune slacks: very common and often abundant. Common in the adjacent counties and in N. France.

- 1) Holwood Park, 1954 **MNE**. Ruxley gravel pits, F. Holroyd: SBS. 56 Farningham Road, PCH.
- 2) 97 Landslips on cliffs East End, E. of Minster in Sheppey, 970734, 990732, 1954 **MNE**. 87 Copse E of Fenn St., St Mary Hoo, 1955. 07 Warden Point cliffs, Sheppey, 020726, 1955 **MNE**. 87, 97, 07
- 3) 96 Bysing Wood, field below, 1946: with unspotted leaves & flowers 1958 Mrs B. Cane Wood, Tylerhill, REW. Calcotthill Wood, Sturry / Sturry Hill Gravel Pit, Jane Hyde, 1952. Old Park, Canterbury '55: - '81! 06, 16
- 4) Stodmarsh (Lampen Wall) REW. Fen-Meadow S.E. of Wingham, 1949. Hacklinge, 1939, JPMB. Plucks Gutter! 1958 A.C.C. Worth Minnis 1950 **MNE**. Dune slack, behind Sandwich Bay 1956 **MNE**. 25, 35, 26, Not 36
- 5) N of Norheads Wood Biggin Hill 403590, '62. 100's, down, Saltbox, Biggin Hill 408605, 50, 61, DL. Chalkpit, Morants Court Hill, 1949 **MNE**. Darwins Bank, Downe, 1962. Copse Fox's Garage, Badgers Mount 493615. Lattice Coppice 473612. Timberden Bottom 507623, DL. The Nower, Brasted, RAC. Downs, Chevening Park, 1951 **MNE**. 426577 W of West[erha]m Hill RAC. Copse W of Newbarn Lane Cudham 445594, '62. SW of Biggin Hill, RAC. NW of Lusted 409584 RAC. Mollards Wood, N slope 402591 RAC. E of Westerham Hill, DL 454567 46
- 6) Whitehill Shoreham 531604 / 530609. Magpie Bottom 53541612 DL. Otford Mount 531613 DL. Pit E of Otford 549496 DL. Wrotham Water Downs W of Pilgrim Ho, 626605. Upper Halling Downs. Down N of Crookhorn Wood. Halling Great Pit, 100's of pl[ants], white to deep mauve, 1961, G L Davidson. Holborough Pit, 1961, G L Davidson. Chalk pit, NW of, & N of Horns Cross, 1962. Swanscombe *E. palustris* pit 596750 DL, BOJ, 1956. 67 Pit Swanscombe HAS. Wouldham Steps, Meopham, 1947 D. Friend. E of Pennis Wood. Whiting Pit, NE of Cuxton, 1951 **MNE**. Great Crabbles Wood, Shorne, 1946, 1965 **MNE**. Hatch Hill 575655. 56, 66, 57, 67, 77
- 7) Chalk pit W of Borstal, DL 725665. Barham Downs. Pilgrims View, Bluebell Hill, '62. Berengrave Lane pits. Horsted Valley. Lords Wood. Hollingbourne Hill, 1939-62. Queen Down Warren. Rainham Park. Hempstead BC. Timbalds Hill, Wichling. Filmer Wood (loam), ditto (chalk) 62. Coxett Wood 987603. Ospringe Down 980602. High Wood, Wormshill. NW Cobland Fm below Foxbury Wood, Lenham 1946 **MNE**. (ch[al]k) Spuckles Wood, Stalisfield '62. 028556 / 022546, Badlesmere E, CT. Challock Forest ES. Down N of Dunn St ES. Westwell Hangers 62. Hawkins Wood, Chilham. Whitehill E side rd 034493, '56. 95, 05, 76, 86, 96
- 8) Downs ENE of Giddy Horn 62. Mystole, Chilham, DHK. 805437 Brook, Hillock, r[are], 62, 1955 **MNE**. Devils Kneading Trough, l[ocally] f[requent], 62. Winterage Wood / Garden Wood, Acrise DACL '63. Lydden-Swingfield. Bishopsbourne JG. Bridge JG. Kingston JG. River KDR. E of Winchcombe Farm Crundale 1956 **MNE**. Larkey Valley Wood. Wood SE of Crundale CA, Mrs B. Covet Wood. Covert Wood. Copse (ch[al]k) N. of Bavinge '62. c100 Down N. of Podlinge '62. (clay) Wood W of Podlinge '62. Down NW of Misling Fm, Elmsted, '62. (ch[al]k) Hunts Wood, Bossingham '62. S of Chilton BW. Reinden Wood (ch[al]k) 62. Lady Wood, Capel, RAC. Down NE of Asholt Wood BW. Puckland Wood '62. Stafflands Wood, 62. Spong Wood M J Conyer. Down NW of Parkgate, Elham, 1955 **MNE**. SW of Dane Fm 175474 Mrs B. West Wood, Stowting BN. Yockletts Bank. Sugarloaf (one bifurcated, ∞ bracts, no fl[ower]s), R. Chambers. Castle Hill Folkestone 217382. Folkestone Warren, chalk. 301426 Crabble Down, Dover, 1949 **MNE**. 14, 24, 34, 15
- 10) 57 Water Meadows Darenth 1945 **MNE**: PCH 1959. 55 Meadows W. of Otford Rd, Sevenoaks, 1950 **MNE**. 45 Dry Hill Chevening 549496, DL. 45 Scords Wood, in valley on clay loam, 1963. Westerham Wood 82! 55 Broadhoath Wood, Stone Street, 1950 **MNE**. 45, 55
- 11) Sandpits, Trottiscliffe / Platt DMCC. Ryarsh Wood. Oaken Wood, Ditton. Copse by Rd N of Chiddingstone 1953 **MNE**. Dynks Green, 616526 c1960, D. Gattlin. Borough Green Quarry. Leybourne Castle lakes in marsh. Horish Wood. Fairbourne Mill. Field W. of Cage Green, 588480, 1952, DL. Wood by Hoad Common 592515, 1953 DL. Copse N of Horn's Lodge, '53, 588505, DL. Snarkhurst Wood. Dickley Wood, Harrietsham. Trench Woods 519488 DL.580488 DL. On loam, Kiln Wood, Lenham '62. 563482 Rly bank, Hildenborough 1960, CAS. Pluckley Brickworks ES. 74, 84, 65, 75, 85
- 12) (Gault) SE of E Lenham. Nackholt Wood. Hinxhill. Cadmans Wood, 082428 Brook 1946 **MNE** 1956 DL. Cuckolds Comb 1984. 03, 94, 04

D. fuchsii x incarnata

4) Plucks Gutter

[11] Birling Marshes, 1943: now destroyed.]

D. fuchsii x praetermissa

Common where the parents occur together, forming hybrid swarms, in fen-meadows and damp disused chalkpits.

3) 15 N. side Canterbury Golf Course, RGN.

4) 35 Ham Fen, JEL, 1925: 1949-60! 35 Sandwich Bay, Mrs Dodds, 1959 **MNE**. 25 fen SE of Wingham.

6) 57 Chalk pit N. of Craylands Lane Swanscombe 596750, 1946 **MNE**. 77 Chalk pit SW of Cliffe, 1957, DL, 1963, HAS: A. Da' Ruck.

7) 76 CR pit, Woodlands Lane Gillingham, 1955, OD.

10) 55 Meadow W. of Otford Rd, Sevenoaks, 1950 **MNE**.

11) 66 [Birling Marshes, 1942, 1943 **MNE**.] 65 Leybourne Castle lakes, 1949 **MNE**: 1958.

D. maculata (L.) Soó²⁸³ 15, 16 Heath Spotted Orchid 17/51

Native. Wet-heaths, valley-bogs, and moist heathy rides in woods on acid soils: only locally frequent. Frequent in 12) and 13), rare to very rare in 1), 3); 10) and 11): unrecorded elsewhere. Widespread locally common on the heathlands of Surrey and Sussex, rare in Essex and in Pas de Calais, where heaths are scarce.

1) 46 Keston Bog, 417642; 1917 AGD **MNE**; plentiful, 1944, 1945. 1958, HMP. 46

3) 15 Heathy area, Church Wood, Harbledown, RGW. 16 Heathy ride, Minching Wood, Blean N.R., 1957. 06 Old Sandpit, Forstal, / Hernhill, H.M. Wilks. 05 Small colony nr. stream, Rhode Common, 1962, Mrs Brickenden & J. Gurr. 15 abundant in acid marsh E. of Canterbury, Scotland Hills, 166587, 1963, R. Gorer. 05, 15, 06, 16

4) Hacklinge, 1952, BJB.

8) Westwood, B. Nash.

10) 55 Deep Sandpit, 1m S. of Ightham 1950 **MNE**: destroyed, 1952. Wildernessee Seal, 3 pl[ants] 1955, in grassland, B. Sennitt. 55

11) 85 Small boggy meadow, Sandway, 1954, abund[ant] **MNE** 882512. 85

12) 94 Hothfield Common, in valley bogs, 1943-62, v[ery] a[bundant] **MNE**, both W. & E. of A20. 13 Gibbins brook, 1945: 1954 **MNE**. 04 Nash N. of Blackwall Farm, Willesborough, E. Scott: 1955! **MNE**. 03 Small bog, Stone Hill, Sellinge [sic], 1945; 1954. 04 S.S. of Hinxhill, 1950 **MNE**. 03, 13, 94, 04

13) 54 a[bundant], Valley bog, Moorden, N. of Penshurst, 1943-1948 **MNE**. 53 Hawkenbury Bog, JRW; 1944-²⁸⁴ 63 Bog W. of Ellis Wood, Lamberhurst, JRW: 1944-57 **MNE**. 64 Cinderhill Wood, 1947. 73 Louisa Lake bog, Bedgebury, 1947. 83 Heathy banks & Rides, Chittenden Wood, JRW: 1944-58 **MNE**. 83 Causton Wood 828365, 1950-54 **MNE**. 53, 63, 73, 83, 54, 64

D. maculata subsp. **ericetorum** x **praetermissa** (**Orchis hallii** Druce)

12) Hothfield Heath, in northern valley bog, 1942, **MNE**.

D. incarnata (L.) Soó²⁸⁵ 15, [16]²⁸⁶ Early Marsh Orchid. 9/52

Native. Fens and calcareous fen-meadows: rare and local. It appears to be now confined to 2), 4), 11) and 12), and to have become extinct through ploughing in 10). The Kent colonies are all of plants with flesh-coloured flowers except some of those at Chilham which have purple flowers. It occurs rarely in Surrey, mainly as the subsp. *pulchella* in mildly acid flush bogs; and rarely too in Sussex and Essex as the type. It is frequent in the coastal duneslacks and fens of the Pas de Calais in several colour forms.

2) Holborough Marshes, 1980→

4) 26 Plucks Gutter, BJB, etc.; 1951-62, several observers! **MNE**. 35 Hacklinge Fen, BJB etc.; 1945-54! **MNE**. 35 Ham Ponds, 1925 J.E.L. N. end of Ham Fen, 1957, KDR. Preston Marshes, Mrs. B. Dodds. 35, 26

10) [Water meadow N. of Shoreham, G.M.B., 1954! **MNE** since ploughed up.] 56

11) [66 Birling Marshes, 1942-43 **MNE**.]

65 Leybourne Marshes, 1944, 1963 R.D. English. 862535 Meadow N. of Goddington, Harrietsham, by chalk stream, 1961-2, Mrs B.Dodds. 65, 85, [66]

²⁸³ Name as in checklist. In the manuscript, given as **D. maculata** (L.) Vermeul. subsp. **ericetorum** (E.F. Linton) Vermeul.

²⁸⁴ Hawkenbury Bog was not in vc16 West Kent.

²⁸⁵ Name as in checklist, in manuscript given as **D. incarnata** (L.) Vermeul.

²⁸⁶ Brackets of original drafting indicate that species was gone from West Kent; but the addition of Holborough Marshes from 1980 is not reflected in this.

12) 080537 Water Meadows, Chilham, abund[ant], 1946, BJB; 1947-59! NW of Mill; & SE of Village, 1965. Abundant (100s) in meadows below Chilham, Mrs B. 14 S. of Stowting, in calcareous fen-meadow; c.100 pl[ants], 1954, **MNE**. 04 N. of Willesborough, E.S. 05, 04, 14

15) 82?

(Subsp. *coccinea* (Pugsl.) H.-Harrison f. has been planted in a dune-slack S. of the Guilford Hotel, Sandwich Bay.)

D. incarnata x praetermissa

4) Ham Ponds, J.E.L., det. CBT; J. Bot. 1925, p.340.

11) Birling Marshes, 1943, det. A.J.W. **MNE**.

D. praetermissa (Druce) Soó²⁸⁷

25/52

Native. Fens, fresh-water-marshes, duneslacks, alluvial meadows, and disused chalk pits: widespread in the N. and NE parts of Kent; far commoner than *D. incarnata* and less restricted in habitats, but unrecorded from most of the Weald Clay and the whole of 13), 14) and 15): not noted either for 1). Scattered in 11) and 12) but hardly common in Surrey and Sussex: Rare in Essex: common in Pas de Calais near the coast in dune slacks and fens, and rare also in chalk grassland inland.

2) 65 Marshes N of Lunsford. 76 Burham, 1911, K. Peters, **MNE**. 97 Landslips on clay cliffs, E. end, Minster in Sheppey, 1954. 65 S. Snodland Marshes.

76, 97

3) 15 Valley marsh on Eocenes. N. of Golf course Canterbury, 1947 **MNE**; 1963, R. Gorer. 175607 Sturry Hill Gravel Pit 1955, Jane Hyde.

15

4) 35 Sandwich Bay, dune slacks W. & S. of Hotel 1949-62 **MNE**. 35 NW of Princes Club House. 35 Hacklinge. 35 Ham Fen 1947 **MNE**. 35 Worth Minnis, 1947. 35 Northbourne Fen 1947 **MNE**. 25 Fen N of Wingham, 1947 **MNE**. 36 Ebbsfleet, C. Harle: 1963! 35 Marsh 1m. S. of Sandwich, 1946, 1951 **MNE**. 25 Fen Meadow SE of Wingham, 1947: v[ery] a[bundant], 1958 BJB. 26 Plucks Gutter, 1951-55 **MNE**, 1958, ACC. Fordwich Marshes, M. Ch-Hunt, REW. 16 Sturry Marshes, Bretts Gravel pits, JO; 1955, Jane Hyde.

15, 25, 35, 26, 16, 36

6) 57 Chalk pit N. of Craylands Lane, Swanscombe, 1946-50 **MNE**, 596750. 77 Wet Chalk pit SW of Cliffe, 1963, HAS & A. Ruck. 66 Great pit, Holborough, a few pl[ants], G.L. Davidson 1961. 57, 66, 77

7) 86 Chalk pit, Berengrave Lane, Rainham, Jolly, '76. Ch[alk] pit, Woodlands Lane, Gillingham, 1955, OD. 96 Highsted pits, Tunstall, 1958, DMCC. 76 Chalk pits, Eccles, E end, 1953, REW.

8) 35 chalk pit N. of Hacklinge, 1960-67 **MNE**.

10) 55 Waste g[roun]d by garage, Dunton Green, 514566, '54, DL. 57 Meadows at Darenth, St J.M. 56 Meadow N. of Shoreham, 1954, **MNE**. 55 Meadow W of Otford Road, Sevenoaks, N of Bat & Ball, 1950, **MNE**. 55 Marsh W. of Sevenoaks Station, 1949, F.S.E.F. 45 Marsh at Brasted nr Church, G.M.B.; RAC. 45, 55, 56

11) E of Dunks Green, 616526, D. Cattlin, 1960. W. Peckham, 639521, 1960, D. Cattlin. [Birling Marshes, 1942-44 **MNE**.] 65 Lunsford Marshes, 1946 **MNE**. 65 Leybourne Castle Lakes, 1944-60. 66 Birling Marshes. 85 Meadow on gault S. of Thurnham, 1945. 85 Meadow by stream joining Len, 1/2m. W. of Harrietsham, 1961-2, Mrs B. Dodds. 75 Bearsted, J.B. Marshall. Teston, 1890, H. Lamb **MNE**. [S. of Marden, Fl. K.] 85 Hollingbourne, J. Justise. 65, 75, 85

12) 05 Chilham Meadows, 1945-59. 04 By Stour, Olantigh, J.H.P.S. 94 Hothfield Common, 1943→. 14 Stowting Meadows, 1954. 13 Gibbons Brook, 1945, **MNE**. 04 Marshes N. of Willesborough, E.S. 94, 04, 13, 14, 05

16) 23 Darnley Vale, Chriton, 1955 **MNE**. 23

D. praetermissa ssp. junialis²⁸⁸

This distinct looking plant, as I understand it, is not the hybrid *D. praetermissa x fuchsii*, but a ring-spotted-leaved variety of *praetermissa*.

²⁸⁷ Name as in checklist, in manuscript given as **D. praetermissa** (Druce) Vermeul.

²⁸⁸ Name as in checklist, in manuscript given as **O. pardalina** "Pugsl." and var. **junialis** Verm.

4) Hacklinge, 1939, BJB: 1946 **MNE**. Worth Minnis, 1947-60 **MNE**. Ham Fen 1947→. 1m. S. of Sandwich, 1946 **MNE**. Fens N of Wingham, 1946-47 **MNE**. Wenderton Fm, Wingham 1947 **MNE** and “hybrid” with *praetermissa*, 1947 **MNE**. Dune slack S. of Guildford Hotel, 1950 **MNE**. Fen SE of Wingham, 1949, v[ery] a[bandant] 1958. Dune slack, NW of Princes Club Ho, Sandwich Bay 1946. 10) [Meadow N. of Shoreham 1954 **MNE**.]

It occurs in Pas de Calais.

(**D. purpurella** (T. & T.A. Stephenson) Vermeul. occurs in Hants. as a remote outlier from its northern area of distribution, so could occur in Kent.)

(**D. traunsteineri** (Sauter) Vermeul. occurs in Suffolk and Berkshire, but this “Continental” marsh orchid occurs in no adjacent county nor in Pas de Calais.)

Dactylorchis²⁸⁹ x **Gymnadenia**

D. fuchsii x **G. conopsea** (**Orchigymnadenia heinzelliana** (Reichardt) Camus)

5 or 6) nr. Sevenoaks, H. Pierson, 1898: *J. Bot.* (1898) p.288; *J. Bot.* (1907) p.278.

8) Pett Street Down, 1946 **MNE**.

Orchis L.

O. mascula (L.) L.²⁹⁰ 15, 16 Early purple Orchid 44/52

Native. Woodlands, scrub, and occasionally grassland on more base-rich loams, clays and sands; very common and frequently abundant locally in all wooded areas of Kent: unrecorded recently for te Marsh districts 4) and 15), for Thanet 9) and very rare (on the Tertiaries only) in 2): now very rare in 1) due to suburban developments. Common in all adjacent counties and in N. France. After *Listera ovate*, this is our commonest orchid, occurring in hundreds of localities and it is still a normal feature of our acid woodlands everywhere, but its tom-cat-like odour at night should discourage pickers.

1) 46 St Julians Wood, Bromley Common, 1954. Wood E of Bromley Common, 1848, DMCC. 46 Bourne Wood, W. of Swanley, 1954 **MNE**. 46

2) 56 Farningham Wood, 1949: PCH. Joydens Wood Miss M Wythes, '57. 86 Hawes Wood, Newington, 1954. 87 Copse N.E. of Fenn Street, St Mary Hoo; 1955 **MNE**. 07 Warden, Sheppey, 1918, AG Davis **MNE**: 1956!

87, 07

3) 05 Upper Ensing, 1945, DHK (white fls). 05 Wd SE of Iron Hill, Dunkirk, 1948 **MNE**. 05 Stonestile, DHK, 1945 (flesh col. fls). Calcatt Hill Woods, Jane Hyde 1953. Hemphall Wood, 1951, REW. 15 Trenley Park Wood, 1949. 06, 16²⁹¹

4) (not 26, 36)

5) 46 Jewells Wood, '45. 46 Copse nr. Cuckoo Wood, Downe, PCH. 46 Darwin's Bank, Downe, 1945-62. 46 New Years Wood. 46 Lattice Coppice. 45 S. of Cudham Church. SW of Biggin Hill RAC. 56 Wood W. of Timberden Bottom 506619, DL. W. of Downe, M Chitt.

6) 57 Darenth Wood, E. side 582726, HMP, 1951. 56 Down above Shoreham Sta[tion] 530609 DL. 56 W of Magpie Bottom 541615, PCH. 56 High Castle Wood 561628, DL. 66 Wood above Wrotham Water Down, 629606, 626605, DL. 66 Worth Wood, Bush, PCH. CobhamBury Wood, HAS. Purvil Wood. E of Priestwood. W. of Harvel. Foxesdown. Chattenden Wood 745735 AGS. 57, 67, 77, 56, 66

7) Copse, Burham Downs. Pilgrims View: & Wheat field Wood, E. of Lower Bell, '62. Rainham Park, A.P.Major. Hollingbourne Hill. Hart Hill. Squirrels Wood 45. Hawkins Rough, Chilham. Rainham Park Wood. Bredhurst Hurst. Purple Hill 808624. Wood above Queen Down Warren **MNE**. Timbolds Hill. College Wood, Newnham. (Lower) Park Bottom Wood, Newnham, r[are] '62. Spuckles Wood, Stalisfield '62. Kennelling Wood Stalisfield '62. Copse E of Whitehill, Ospringe 1945 **MNE**. Coxett Wood. Sandbanks Wood 930602. Syndale Wood. Woods S. of Hockley. Down in Filmer Wood '62. Wichling Wood 1949 **MNE**. S. end Lords Wood 769622, DL. 76, 86, 96, 95, 05

²⁸⁹ Sic, although *Dactylorchis* has been changed to *Dactylorhiza* elsewhere.

²⁹⁰ In the manuscript, *O. mascula* follows *O. morio*, preceded by *O. ustulata*, before which is *O. simia*.

²⁹¹ The 10k square numbers in the margin of the manuscript do not correlate well here with the text.

8) Wood SE of Crundale Ch[urch], Mrs B. Winchcombe Down l[ocally] a[bandant] 1959, 085498. Wood W. of Sole St., DL, 092496. Hurst Wood, N of By Coombe Fm. Copse (ch[al]k) N of Bavinge '62. Spong Wood RAC: 1992. Lynsore Bottom. Garden Wood, Acrise DACL. S. of Denton, Miss DACL. Yocketts Bank, '97. Coombe Vale Dover. Swingfield – Lydden. Sladden Wood to 1995. Downs NW of Newington DG Stanford. Lousyberry Wood, T[emple] Ewell. Mystole 086533 ABS, 1997. Hurst Wood (ch[al]k) '62. Cpose S. of Hurst Wood (ch[al]k) '62. Stelling Minnis (loam) '62. Atchester Wood 1961. Parkgate Down, Elham, 1961, 1998. Reinden Wood (ch[al]k) '62. Copse S. of S Alkham (ch[al]k) '62. Lady Wood Capel, RAC. Frandham Wood KDR. S. of Chilton. Wolverton Wood. Waterhouse Wood, Adisham 1955 **MNE**. Covert Wood. Parkgate. Arpinge.

23, 14, 24, 34, 15, 25, 35

10) 45 Westerham Wood, 1949. Bessell's Green, 1950, F.S.E.F. Hills Wood Kemsing 563585, CAS. 45, 55

11) Ryarsh Wood. Oakden Wood. Forslet Quarry. Horish Wood. Park Wood, Boxley. Longham Wood. Snarkhurst Wood. Milbay Wood, E. Peckham 1945 **MNE**. Starvecrow Hall 600502 B. Sennitt 1957. On loam, Kiln Wood, Lenham '62. Fairhill, DMCC. Bank by Hildenborough Sta[tion] CAS. Minne Hood Tonbridge 580488, DL. Woodland Walk Tonbridge 598488 DL. Starvecrow Hill Tonbridge 601503 DL. Trench Woods 591438 DL.

65, 75, 85

12) Copse on Gault S. of E. Lenham. Cadmans Wood, Brook, 082429, DL.

03, 94, 04

13) Chatfields, nr W Pond, RAC. Ashour Wood. Hoathly, Lamberhurst. Southborough HNC. Castle Hill/Pixot Hill, Brenchley. Combwell Wood 1898 JS **TLS**.

53, 63, 73, 44, 54, 64

14) Robins Wood Cranbrook. Attwaters Gill, Cranbrook. High Halden Ch[urch]y[ar]d, RAC. Wood SW of Sandhurst, 1950 **MNE**. Shirkoak, Woodchurch.

72, 82, 92, 83, 93

16) Lympe Park Wood 1949. Hythe JG. Asholt Wood. Postling Wents.

13

O. morio (L.)

15, 16

Green-winged Orchid

33/52

Native. Grasslands on clay, loam and chalk: formerly common, and abundant in many old permanent pastures throughout Kent: now far rarer, due to the conversion of such pastures to leys or arable, and becoming more confined to the chalk, where it is less vigorous in growth, though still widespread and found in all districts except 9) and 16), and locally abundant on London Clay in Sheppey 2) and 3). In Surrey, Sussex, Essex, and N. France, but becoming rarer as in Kent through the same factors.

1) Eden Park, Beckenham AG Davis 1905 **MNE**. 46 Sparrow Fields, Orpington, Miss G. Swain. 36 One pl[ant] between Hayes and Beckenham, 1950, JSS Beesley (*Lond. Nat.* 1950).

36, 46

2) 07 W of Warden Point, AG Davis; Mrs. B. Welch, 1947; 1955 **MNE**. 07 S. of Warden Point, 1918 **MNE**, 1959. 97 Brambledown, W. of Eastchurch! L[ocally] a[bandant] in scrub, 1955, OD.

97, 07

3) 05 Pasture on L[ondon] Clay, SE of Iron Hill, Dunkirk, 1946 **MNE**: 1948 **MNE**. 05 Blean NE of Rhode Common. 06 Seasalter, 097643, 39 infl[orescences] SE of S, 1958 HMW; 094638, 78 infl[orescences] E of Fox's Cross, 1958 HMW; 097636, 3 infl[orescences] E of Fox's Cross, 1958 HMW. 26 Ravine, Bishopstone, RE Wood, 207687. 16 Clapham Hill, RE Wood, 107644, 49 infl[orescence], HMW 1959. 16 Duncan Down, Whitstable, 110650, 1961, H.M.W. Field N of Hawcroft Fm, Sturry, 181617, 1955, Jane Hyde. Cliff top Beltinge, 1954, Mrs K. Mackenzie, REW. E of Longreach P.H., 102660, Whitstable, REW. Shrub Hill Golf Course, Chestfield 140650 a[bandant], 1952, REW. Shrub Hill → Bogshole F, 129650, REW & LWW, 1950. Frogs Island Fm 148652, E of Chestfield REW.

05, 06, 16, 26

4) 35 Damp pasture behind dunes, St Georges Links, Sandwich (behind Princes clubhouse, LWW), 1998. Preston Marshes, Mrs B. Dodds. NE of Stodmarsh, REW. S. of Shellness Sandwich REW.

35

5) 46 Down S. of Saltbox, 409604, 1 pl[ant], 1961, D.L. 1 pl[ant] SW of Biggin Hill, 1948, B.W.

6) 56 SE of Eynsford, G. Brand. Romney Street, 1937. 66 SE of Meopham, 1947, D. Friend. Birling Downs, 665616, Mrs. DVS Woods. S. of Whitehorse Wood, Trosley, DVS Woods. [Base of Birling Downs DVS Woods.

66

7) Walderslade, 4 pl[ants] 1954, REW. 86 Quen Down Warren 826629, JB Groom, 1803 **MNE**; 1946-62 **MNE**; 1998. 85 above Detling, pastures on each side of A.249, on clay with flints, S of Aerodrome, 1945-60 **MNE**. 95 Down in Filmer Wood, Wichling, 1949 **MNE**. 85 Down E. of Hollingbourne Hill, 1961, Mrs. B. Dodds. 76 W of Cowbeck Wood 973616 BC. ½m N of Hucking Church, Brig. Orr. 96 Simia Down, Ospringe, 1955, HMW.

85, 86, 95, 96

8) 04 Crown Downs, Wye, 072467, 4 infl[orescences] 1960, D.L., 1997. Hassell St, 1958, MEM. 14 Down E. of Elham, 1950 **MNE**. 14 Podlinge Down/Waltham 1948 **MNE**. 14 1 infl[orescence], Parkgate Down, Elham, 1962, Rev. A.C. Cawston; 1995! Down S of Denton '48 DACL. Downs E of Stowting '49 DACL. [Charlton Park, BJB.] Arpinge, P Gay 1998. 13 Downs NW of Newington before about 1947, DG Stanford, now burnt, 1951. 15 Meadows, Marley Lane, nr Duskins, Kingston, BJB. Swingfield Minnis, BJB. 23 Rifle range pasture, top of

Abbots cliff, 1945-62 **MNE**. 34 Free Down, Ringwould, 1954 **MNE**. 34 Kingsdown Downs (Golf course) T.W.W. Warren Lane, Down 1/2 m SW of Lydden, 1955 **MNE**, 1994. 24 Down N of Lit[t]e London, Lydden 1955 **MNE**.

04, 14, 15, 23, 24, 34

10) 56 Meadow N of Shoreham, G.M.B., 1954. Wildernessee, Seal, in grass, 548562, 1956, B. Bennitt. 45 Pit, Dry Hill, Sundridge, F.S.E.F. 45, 56

11) 65 marshy meadow S. of Wrotham, 1962. {Ditton Laboratory, CW.} 66 Ryarsh Wood in pasture, 1936 **MNE**. W of West Peckham & N. of Hadlow, 639521, D. Cattlin, 1961. Dunks Green, Miss Nisbett. [s of Ide Hill, E. Armstrong – ploughed up.] [Meadow at Brandbridges, East Peckham, 1882, E Bartlett **MNE**.] 84 W. of Smarden, 863438, 1/4 m N of Marley Fm D.McC. 1949. 65, 84

12) 94 Westwell, ES. 934499 wet meadow on gault (122 pl[ants]) SE of Lenham, 1960. P.G.W. Meadow by Stour nr footbridge, Olantigh, 1946, DHK. 94

13) 54 Upper Haysden, 1945 **MNE**. 63 Scotney Castle c.200 spikes, PCH, 1956; abund[ant] in meadow, KEB, 1961. [Bidborough rectory –built over HNC.] Orchard, Bayham Abbey, 1947, Mrs. G.E.Scott. [Twysden, Goudhurst, 1899, JS **TLS**.] [S. of High Woods, G.E. Shaw.] 54, 63, 73

14) 93 S. of Woodchurch, 1939. 83 1m W. of Rolvenden, 1939 **MNE**. 93 Beals Farm, meadow on clay, Redbrook Street, Woodchurch, >200 spikes, H.W. Adams, 1960; C.A. Lister, 1961. 83, 93

15) 13 Beach W. of Hythe, 1946, 1 infl[orescence] **MNE**. 02 Romney Warren. 93 N. of Shirley Farm, V. Rendel, 1943. 01 Dungeness, nr. old school, on turf over shingle, 1957, W.G. Breed. 01, 02, 13

(O. palustris Jacq. This species, closely allied to *O. laxiflora* Lam., occurs in the fens near the coast in Pas de Calais (Merlimont, Cucq!) but is unknown in the British Isles.)

O. ustulata L. 15, [16]. Dwarf Orchid 6/52

Native. In short grassland on chalk: rare, and now only in 7) and 8), though in some local abundance in some localities in 8) in some seasons: only recorded in seven localities since 1947, and apparently long extinct in V.C. 16. This charming species appears to have diminished everywhere in England this century due to ploughing up, and lack of grazing, of chalk grasslands. It has not been seen in Surrey very recently though probably still exists there: it is still abundant in a few Sussex localities; extinct in Essex; and confined to one locality (Blanc Nez) in Pas de Calais. This species requires about 14 years for development of a flower spike from a seed, and each plant apparently flowers once only, so it should not be picked.

[5] ?Reported at Darwins Bank, Downe, by E.J. Epps, 1939: Polhill, H.Knight / Chevening Park, H. Knight probably all errors for *Herminium*.]

[6] Formerly at Gravesend and Dartford, F.C.K.]

7) 86 Queen Down Warren 829629/ 1880, Fawcett Osborne **MNE**: 1905, **MNE**. 1923 **MNE**. 86

1939, c.24 infl.	1949	1956
1942 nil	3 - 1950	1957
1943 – 1 infl.	1951	1958
1944 - nil	1952	1959
1945 – a few, Whelon.	1953	13 - 1960
1946 – 24 infl.	1954	15 - 1961 MNE
1947	1955	1962
1948 – 5 infl.		1963

[Formerly near Bluebell Hill and Faversham, Fl. K.]

8) 04 Down S.E. of the Crown, Wye, F.G.E.K.: a few, 1954, K.E.B.: 33 spikes, 1952, M.E.M.; 1953, 4 infl[orescences] D.A.C.L.; 1 infl[orescence], 1955, below Crown, Mrs. N.E. Baker; 1959! 3 infl[orescences]; 1964, 2 infl[orescences]. Mrs B. Broad Downs, Brook, 1964, Mrs. B., 1 plant. Down above Bulltown, H. Greenfield. 14 S. of Whiteacre, Waltham, 1945, D.H.K. 14 Cobbs Hill, E. of Stowting, 1947, D.H.K & F.R., 1 infl[orescence] [14 Down E. of Elham above old railway station, Miss V. Day.] 23 N.W. side Sugar Loaf, Folkestone, 1939, B.J.B: below tank trap, 1951, D.A.C.L. E. of Folkestone, 1957, A.C. Cawston. [24 S.E. of Sladden Wood, Alkham, Miss V. Day: apparently now gone.] 24 Little London, Down S.W. of Lydden; for many years: 1959 **MNE**, 1963. 24 Down W. of Woodville, Temple Ewell, 217454, 1955-63 **MNE**, >100, 1955! 7 in 1958, K.D.R., 1980, 1991, 1995! 7 seen 1995. 34 Langdon Bay, B.J.B., 1939; 1946, 80 infl[orescences] **MNE**; 1948, 44 infl[orescences]; 1949; 1950; 1951; 1952; 1953; 1954; 13 infl[orescences] 1955; 1963, B.J.B. [34 Between lighthouses and sea, St Marg. Bay, A.D. Webster, before 1898.] 34 Free Down, Ringwould, 1954; 5 infl[orescences] 1955. [Formerly on

cliffs, St Margarets Bay, 1901, J Bennett **MNE**: above Brook: above Beachborough: Wingham: Barham Downs: Undercliff S. of Kingsdown, Fl.K.] 04, 14, 23, 24, 34

O. purpurea Hudson

15, 16

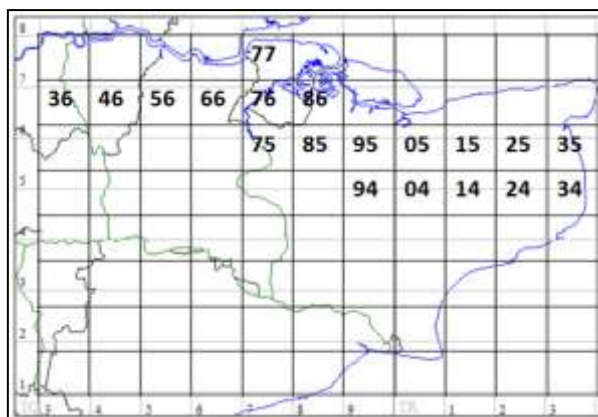
18/52

Lady Orchid, Maids of Kent

Native. Scrubland, woodland (both beech forest and coppice), and, more rarely, grassland on chalk: widespread in 5)-8) from near Knockholt in the west to Betteshanger, Waldershare and Dover in the east, and locally frequent and locally abundant in the east part of 6), the west half of 7), and throughout much of 8). Also in one wood on the Gault in 12).

This magnificent orchid still occurs in some 130 localities in Kent, and in abundance in about 25 of them, with from 100-400 spikes flowering in "good" seasons. It is however now very rare from Meopham westwards, and absent from much of 7) between Frinsted and Milstead on the west and Challock on the east. It is almost confined in Britain to Kent today: it exists in Surrey as a single locality and in Sussex and Oxford only as single plants within the last 25 years. In Essex it is long extinct: in Pas de Calais and N. France generally, however, it is common and locally abundant on the chalk: clearly Kent lies at the extreme margin of its main European range, which is Continental-Southern in character.

The wasp *Ancistrocerus parietum* (L.) is a known pollinator.



The wasp *Ancistrocerus parietum* (L.) is a known pollinator.

5) [1 plant E of Jewells Wood, C.1925, Fagg.] 46 Lattice coppice, Pratts Bottom, 473613, many 1936, Miss B[urnaby]-Atkins; 1947 (4 pl. in fl.) -1962! (5 pl., 3 infl[orescences]) **MNE**. 7 st[ems], 1950, FSEF; 195, 1 infl[orescence]; 1956 – 10 st[ems], 2 infl[orescences], DL; new site, 1991, E of road, 3 infl[orescence]s. 46

6) 56 Greenhills Wood, Otford, 538603, Knight, FSE Fawkes, 1949 (1949!-1962: **MNE**); 12 st[ems], 5 infl[orescences] 1950 FSEF; 15 st[ems], 8 infl[orescences] 5[sic]; 14 infl[orescences] 1956 DL; 12 infl[orescences] 539602, '58 DL; 8 infl[orescences], 15 st[ems] 539602 '59 DL. Wood N of Knockmill, West Kingsdown, 1949 **MNE**. Down N. of Wrotham Water, 1936-61 **MNE** EP. Lit[tle] Commodity, N. of Ryarsh, 1941-58 EP. Birling Down, 679625. Crookhorn Wood, in *Sorbus* area scrub at E end, abund[ant], 1944-53 **MNE**. Great Park Wood, 1943-53. E of Buckland, 1942-51. Hatch Hill, 1951. Red Wood, Luddesdown, 1946, abund[ant] **MNE** 683658 & 684665. North Wood, Bush, 1944: 693658, PCH. pit. Up[pe]r Halling, 1943-60. 56 Magpie Bottom, sterile pl, 545612, 1956, DL; 5 pl 1961, K. Marsh. Beech pl[antation] Fawkham Wood 597663, Mrs D. Woods, 3 infl[orescences] '55. Churchdown Brake, 594683 D.V.S. Woods. 613678 W side of Hartley Wood, 1954. EP 642635 below Ridge Wood, Harvel, D.E. Kuimins, Baker. Wood SE of Meopham, nr. Wouldham Steps, 30 infl[orescences], Friend 1947: 1948! 77 Great Crabbles Wood, Shorne, 1944-'55 **MNE**, 1991. Scrub at top of down above N. Halling, PCH, = Scrub below Wingate Wood 699657 – 698655, 1942-1945 **MNE**. S. part of Wingate Wood **MNE** 694653.. Upper Halling hanger 1946 (**MNE**) -63. Top of rd.bank nr. Warren House, L[owe]r Bush (1 pl) 690672. Bush Valley Home Bavins 1946-53 **MNE**. 56, 66

7) Bridge Wood NE Robin Hood. Wouldham Downs, 1947. Burham Downs, 1955-62, 200 infl[orescences] '62; 5 infl[orescences] 1960, OD. Lit[tle] Monk Wood, 738643, BC. V[ery] a[bundant] Coal Bottom, Tunbury Wood. Lords Wood, Walderslade 769622 '51, v[ery] a[bundant] 750 infl[orescences]. "Pilgrim view", Bluebell Hill, E. of Lower Bell; c400 spikes 1962. 1 pl, Coombe W. of Detling, 1962, D. Cattlin. Westfield Wood, 755606, B.C. Hempstead 793636, BC. Coxett Wood, Ospringe, rare. Pett Dane, Ospringe, 1946. Park Wood, Chilham 1945-61 **MNE**. King's Wood to SE: S of Park Wood to E: **MNE** 1956. Edge of woods above Bilting, 21 pl 1945 DHK; 1954. Westwell (Suomi), ES. [Down N of Dunn St, ES, 1950; ploughed 1957.] S. of Hempsted BC. Rainham Park Wood 1952. Purple Hill v[ery] a[bundant] 1942-62 **MNE**. Bredhurst Hurst 1941-62 **MNE**. Queendown Warren 1880 **MNE**; 1962!; & copse below 1961-2. SE of Scragged Oak 1965 – Penfold Bank LRAC. S. of L[owe]r Cox St. Church Wood, Bicknor, C.A. Lister. Holbeam, J. Pitt, 1997. Wood border SE of Young Manor Farm, Chilham, 3 infl[orescences], 1962. Bluebell Hill 1881 **MNE**. Top of Boxley Downs 1882 **MNE**. 1895. Bredhurst 1881, 1885 **MNE**. Rainham chalkpit EP. NE of L[owe]r Cox Street. Gorham Wood, Bicknor, 1950-62 **MNE** 855590 1978. Longreach Wood, Stockbury Valley 827699 **MNE** 1948-62; 92 pl, 4 infl[orescences] 1960 DL. Hill Wood, Stockbury, E side, 1953, NE rare 1945. Longton Wood. High Wood, Wormshill, 1949; 1956. Stock Wood, Frinsted, 1949; 53 **MNE**. Bassiline Wood, Milsted, 1956 **MNE**. Wood 905595 N of Milsted, 1962, C.A. Lister. Cromers Wood 9060, 1990. W of Marriage Fm 073479 DR Glenderry. 75, 85, 95, 76, 86, 96

- 8)** Mystole, DHK 1946 **MNE** – 087593. Downs Wood, 1946-59 **MNE** – 089514/087518/085520. S. of Penny Pot, HMW, 092511. Denge Wood, 10) : : : **MNE** [sic]. Gorsley Wood, 1998, P. Gay (FR!). v[ery] a[bandant] N of Broadway Green Fm, Petham, 1949-59 **MNE**. Iffin Wood, J. Moor – not recently. Larkey Valley Wood, 1949 **MNE**, 1955 **MNE**. a few in Gorsley Wood BJB, 1997 P. Gay (&!) [copse opp. Gorsely Wood by Langham Park Rd BJB – grubbed by 1978.] Whitehill Wood, L[owe]r Hardres LWW. Hunts Wood (Up[pe]r Hardres Wood) 1961: 1962. Fryarne Park Wood & wood to N. Lynsore Bottom 1939-61 **MNE**. Atchester Wood, 1949, LWW. Westwood Fm, Bishopsbourne, 1950, LWW. Blacklands Carvet Wood, W. of Lyminge, 1950. Clavertye Wood, NW of Elham, 1956 (wood cleared & cut). Valley, S. part of Covert Wood, 1950. W. of S. Barham, 1954: 1962. Covet Wood – v[ery] a[bandant] 3000 pl[ants] 1990-99. NE end Elham Park Wood Mrs. B. 1958. Nr Danes Fm 475177, 1960, Mrs. B. Covet Wood above Duskins, Kingston, 1939-56 **MNE**. v[ery] a[bandant] Wood, E of Swingfield 1965 **MNE**. v[ery] v[ery] a[bandant] Swanton Banks 1949-55 **MNE**; 12, 1948: >1000, 1949: ∞ 1947. v[ery] v[ery] a[bandant] Lit[tle] London, 1948-55 **MNE**. N. of Wolverton, 1949: 1955. v[ery] a[bandant] Sladden Wood, Alkham 1949 **MNE**. Copse S. of S Alkham 1950-62 **MNE**. Lords Wood, Temple Ewell, 1949 **MNE** 2 sites; 4 colonies; 1961 HMW. Jumping Downs, P. Gay 1992. Parkgate Down Wd, 1997-99. Reinden Wood 1962. S. of Kearsney copse W of Frandham Wood, Mrs KDR. Coombe Fm, 1955. Copse E of Poulton Fm, 1955. V[ery] a[bandant] Wood S. of Coombe Farm, 1955 BSBI. Wood E. of Longport 076488, 077483. N.W. of Hassell St. W. of Pett Street. Beech Wood Wye. Fancombe Wood, Wye. Rob Sacks Wood, DHK 1945. L[ocally] a[bandant] S.E. of Pickersdean. [Brook Hillock] Wood S.W. of Big Coombe Fm. Yocketts Bank, 1948 to 1962 v[ery] a[bandant], 1995 **MNE**. W. of Waddenhall Wood, 1956. Down N. of Podlinge, v[ery] a[bandant] 1948 **MNE**, 14 infl[orescences] 1962. N of Bavinge Fm, 1962. Lit[tle] Gains, Elmsted, 1969. Spong Wood, RAC / MJ Comyn, 4 infl[orescences] 1961. Maxsted Street. Copse NE of Hastingleigh, 1945. Wood SW of Denton 202465 Miss DAC Long. Valley S of Denton DACL 1949. Watertower Wood, 1955 **MNE**. Woodlands Wd Adisham 1960. Pitt Wood Adisham, 1955 **MNE** l[ocally] a[bandant], 1960, 1978. Ileden Wood, 1955, not since. Woolwich Wood, 1955 **MNE** in SE & NE widespread: NW part 1985. By Rubery Downs Miss Hibberd. Stafflands Wood, Miss J Hibberd: 1948!. Puckland Wood, Miss J. Hibberd, 1 pl: 1 pl DACL. Eastling Wood, 1965 **MNE** l[ocally] a[bandant], 1990 J Pitt. Betteshanger, PC & J Hall, 1955, 1 pl. One pl on cliff top Langdon Bay, D Harle. Capon Wood, 1954 **MNE**. SW of Crundale Ch. SE of Crundale Ch, 1949. Hurst Wood, Hassell St. 1943-60: 200 infl[orescences], 1961 CAS. Giddy Horn. S. of Whiteacre 1943. [Downs NW of Newington DG Standford before burning of Downs prior to 1947.] **04, 14, 24, 34, 05, 15, 25, 35**
- 12)** Cadmans Wood, W of Brabourne on Gault, 082433, 078434, CN Pope: 1946-61 **MNE**. 1957 – 70 infl[orescences]; 1959 – 30 infl[orescences]; 1960 – 4 infl[orescences], D.L.
- 16)** Postling Wents, on Gault, J Pitt, c.1990.

O. purpurea x Aceras anthropophorum = X O. melsheimi Rouy

[No account is given in the manuscript, but the discovery of this hybrid in private woodland in vc15 was written up by Francis Rose as: A new orchid hybrid for Britain – X *Orchiaceras melsheimeri* (*Aceras anthropophora* x *Orchis purpurea*), *BSBI News* (1998) **79**: 19-20.]

(O. militaris L.)

This species has been reported from Kent on a number of occasions, but there is no convincing evidence that it has ever really been found: all the specimens appear to be of *O. purpurea*.²⁹² Apparently correctly recorded, though long extinct, in Surrey; only known today in Britain in Bucks, Oxford (2 localities), and Suffolk (one locality); apparently extinct in Pas de Calais, but locally abundant in Somme in several places.

“nr. Deal, 1908” GW Harris. “Near Deal, Kent”, 1910, Hb. Druce, det. G.C. Druce, RAG & VS examined these two specimens in 1958 and concluded that they were abnormal forms of *O. purpurea*. “Kent”, Hb. Merrell ex Hb. Backhouse junior K. “Kent”, 1846 K.

[Cobham, 1836, Joseph Woods, Herb. Bolton Museum (determined by FR; has oval-lanceolate sepals 19mm long, labellum c.8mm long, narrow side lobes).]

O. simia Lam. 15, 16 Monkey Orchid 1/52: [2/52]

Native. Continental – southern. Chalk grassland and chalk coppice: extremely rare: at present confined to two localities, one in East Kent, where 33 spikes appeared in 1963 and c.240 in 1965; and one in W. Kent, where the solitary plant was moved from Otford to a safer place nearby in 1956, but has not been observed since 1957. There are several old records from the districts 6), 7) and 8). Otherwise confined now in Britain to

²⁹² Thus the original manuscript. But Francis Rose became subsequently persuaded that there was good evidence for the occurrence of *O. militaris*. By 1998 he had authenticated an 1836 specimen as indicated by the note which he added at the end of this species account.

one locality in Oxfordshire and one in E Yorkshire (Spurn). Recorded in Pas de Calais a single plant on the dunes at Dannes, 195[] but very rare in Northern France, commoner in central and southern France.

*1777, E. Jacob.

6) Otford, Rev. E. Elder, 1952; V.S. 1952; 1954 1 spike; 1955 1 spike; 1956 1 spike **MNE** 6st. Moved, Nov. 1956, to Dunstall Woods, where there developed 1 fine spike, 1957, not since to 1963.

“‘macra’ type with broad labellum resembling Otford plant”. V.S.²⁹³

7) (Burham Downs, c.1930, F. Forsyth: unconfirmed). On chalky bushy banks beyond Ospringe, E. Jacob in *Pl. Fav.* 1777. Down opp. Putt Wood, Ospringe, 1955, H.M. Wilks, 1 inf[lorescence]; 1960 – 5 inf[lorescences], 1961 – 6 inf[lorescences], 1 st[em] Down, 2 inf[lorescences], 13 st[ems] wood, total 20 st[ems], 8 inf[lorescences]; 1962 – 14 inf[lorescences], 3 st[ems]; 1963 – 33 inf[lorescences]; 1964 – 162 inf[lorescences]; 1965 – 220 inf[lorescences].

8) [Charlton Park, Bishopsbourne, Mrs. S. Hall, teste RA Roffe in *J. Bot.* (1920) p.177; BJB, etc. 1920-1923.] Sown at Parkgate Down, Elham, 1965, 3 inf[lorescences], C. Cadbury, from seed sown 1958; 9 inf[lorescences] 1979!, 14 inf[lorescences] 1980!, 44 inf[lorescences] 1995!, 100 inf[lorescences] 1999.

[“Downs nr Winchcombe, Crundale, 1920, R.J. Deacock, “Kentish Express”, 1.1.1921.]

O. simia x **Aceras anthropophorum** = **X O. bergonii** (Nanteuil)

Aceras R. Br.

A. anthropophorum (L.) W.T. Aiton²⁹⁴

Native. Chalk grassland, wood borders, banks, scrub and coppices on the chalk, widespread on the North Downs, and quite common from the Surrey border to a line from Wingham to Denton, Elmsted and Wye, rare east of this; very common locally most abundant from the Darent valley to the Wye downs towards the coast: also on calcareous fixed dunes at Sandwich, in a disused ragstone pit at Sundridge, and in a railway cutting on Gault at Leeds: 5)-8), 4), 10) and 11). Over 100 localities [142 localities] exist on the Kent chalk. The headquarters in Britain are the North Downs of Kent and Surrey, though in W. Surrey it becomes rarer. Very rare in Sussex on the South

Downs, where only 4 or 5 localities are now known: in Essex, only in one chalkpit near the Thames at Thurrock [1997, only 2]: in Pas de Calais very rare, and known only on dunes at Le Touquet and Étaples and on chalk at Wavrans. Hence its abundance with us is not a direct continuation of any similar abundance in N. France.

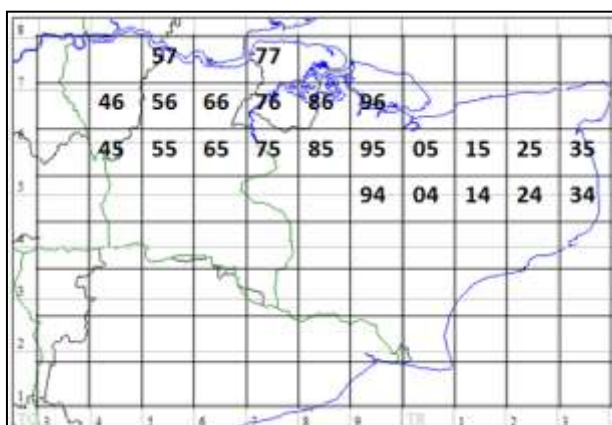
2) Tower Hill Upnor, on chalk outcrop, D.McC et al., **MNE** 1959.

4) Calc[areous] fixed dune grassland. Royal St Georges Links, Sandwich Bay, L.W.W., 1951→1999! **35**

5) Chalk pit, Morants Court Hill, Knight: 1949, FSEF: 1949! **MNE**. W. border of Darent Wood, B. Green (1969!). Above Cross, Downs W. of Shoreham, 1951 **MNE**: PCH. 1999. Pilots Wood, PCH. Darwin’s Bank, Downe, 1961, Miss J. Clapham – 1 inf[lorescence]. 408603, Down S. of Saltbox, 1952 DH Burnett, 1960 RA Clarke. 409604 1961, D Lang. Copse by Garage, A.224, Badgers Mount, D. Lang, 1955, 493625. Down NE of Pilgrim Ho., Westerham, P. Greenfield: 100 inf[lorescences], 1959! Down SW of Biggin Hill, 408585, RA Clarke. Lane NW of Lusted, 409584, 1959, RAC. **45, 46**

6) [Chalk pit, Northfleet to Greenhithe, 1823, C. Johnson, *Hortus Dilineatus*[?]] [SE of Dartford, AC. Tapp: Brand.] [Mounts Wood, Greenhithe, 5 inf[lorescences] 1946 **MNE**.] Mental Hosp. Grounds, Darent Wood, Bryn Green. 57 Chalkpit N. of Craylands Lane, Swanscombe, CA Lister, 1962. 77 Great Crabbles Wood, Shore, 1944-55, **MNE**, 1994. Off Lullingstone drive, HMP. Rifle Range, Shoreham, 1947, PCH 1954. Dunstall Woods 530619, '57. 529611, etc., 528613, White Hill, Shoreham 1945-58 **MNE**. Otford Mount. Down NW of Greenhill Wood Shoreham. S. of Cotmans Ash, NE of Kemsing. Down S of old Terrys Lodge NE of St Clere, Kemsing

15, 16 Man Orchid 23/52



²⁹³ This seems to be a quotation set down here without working into a context within the Flora. Var. ‘macra’ is a term which has been used for Oxfordshire *O. simia* specimens in distinguishing them from Continental plants (*macra* being Lindley’s specific name for the British plant).

²⁹⁴ Cited as (L.) Ait. f. in manuscript.

585597. Magpie Bottom 545612 to 542615. Down NW of Wrotham 595599. Above A.20 Wrotham Hill 609597. Above Hogmore Fm, Wrotham 623599. Wrotham Water Down, 1936-61, 627605 **MNE**. Down N. of Trosley Church PCH. Ryarsh Down 660615. A[bundant] N. of Crookhorn Wood, 1946-60 **MNE**. Down above Birling. Elbows Wood, Meopham, Swain. Down E. of Lullingstone, PCH, 535640. E. of L[owe]r Austin Lodge. 544640, 1949 **MNE**. Round Hill, NE of Romney St., 547621. S. of Hog Wood, W. Kingsdown, 555627 **MNE**. E side High Castle Wood, 562628, 1949 **MNE**. S of Longfield, 603687, by rd, G.Fannel; 1962. Plant[atio]n N of West Yoke, Ash, 597664. Down E of Valley, Priestwood, 656645, 1961: 1964. Rare Wouldham Steps. SE of Meopham, 1949, **MNE**. SE of Farningham, 30 pl[ants] D.L. (120 fl. on one spike). W & E sides Buckland Valley, P. Greenfield. 691647 Upper Halling Downs, 1943-54 **MNE**. 697653, S. Edge of Wingate Wood, Halling, PCH. S. of Great Wood Cuxton, 698681, **MNE**. Halling W. Works 699643. Nr Medway, Halling, 705637. White pit, Halling, 693651. Chalk bank nr. Medway, NE of Cuxton, 1961 **MNE**. 55, 65, 56, 66, 57, 67

7) Wouldham Downs 1954 **MNE**. 100 pl. Borstal, B. Hawkes 1964. Burham Downs 1946-62: Scarborough Spur **MNE**; Church Spur; 3/4m E of Church. Above W.W. Boxley. Boarley Warren **MNE**. Boarley Lane. Detling W. coombe. Thurnham Castle, 819577. Allington Down, Hollingbourne 1949 **MNE**. Hollingbourne Hill, 1962. Down NW of Broad Street. Hart Hill, Charing. Chalk pit by Suomi, Westwell 1949 **MNE**. Soakham Downs NW of Bilting! DMR: 1950, R.Th. Godmersham Downs. Belmont Golf Course'51 REW. Bredhurst Hurst. Queen Down Warren, 1938-62 abund[ant] **MNE**, 828629, 1000's. South Green Stockbury 849598, '60 DL. Wormshill. 803604 Newlands Wood. Purple Hill, a[bundant]. Wrinsted Court. E. Timbolds Hill. Filmer Wood, Wichling, 1949 **MNE**. 96 Down NW of Putt Wood, Ospringe, 1960 **MNE**, 980602. L[ocal?] Wood border S. of Young Manor Fm, Chilham 62. Highsted pits, 9061. Eccles pits RGW, '53. Culand pit. Copse below Kits Coty. Conny Banks BC. Westfield wood (beech) '62. 'Pilgrims View' (2-300 pl) 62. Down E of White Horse Stone, (6) 1962. Bluebell Hill **MNE**, E of A229, 1882-1945. Horsted Valley, Walderslade, 1952 **MNE**. Walderslade Valley B.C. Lords Wood, S. edge BC. A[bundant] 075528 Rly cutting S of Chilham '51 REW. 76, 75, 86, 85, 96, 95, 94

8) 071467, Crown pit, Wye, 1949-62 **MNE**, 1998 PG. Longport 076485. 04 Down N. of Crundale Church, 1950 **MNE** [locally] a[bundant] 55 BJB. 04 Down N. of Winchcombe Fm, Crundale 087498, 1957-60. 05 Down above Egerton Manor Godmersham 1949 **MNE**. 04 Down W of Pett Street, 081474. 14 Down E of Stowting, Miss DACL: 1953! 130417. 24 Down S. of Denton, Miss D.A.C. Long, 208454, 206452, 1949. S. of Gaterage Fm. Breach Downs BJB. Edge, Frentham Wood, River, 1958, KDR. Foot of Shakespeare cliff, 1958, Mrs.KDR: 1958! 307396 **MNE**. 24 Plantation in NE of Coldred Ch, 1959, 276476 **MNE**. 25 Plantation, Knowlton Park, SE of Chillenden, 1954, 273533, **MNE**. SE of Eyethorne, EP. 25Brambling pit, Ickham, 1961, 225560. [13 Downs NW of Newington, before burning of downs, DG Stanford.]- refound E. Philp, 1970's. Arpinge Down, P. Gay (&FR) 1998. Wood W of Penny Pot 089514 ABS. 05 Mystole Woods, Chilham 1945! 05 Juliberry Down, Chilham, 1945. 05 Downs Wood, Chilham 1945. 15 Bourne Park, Bishopsbourne, 1946. 15 Charlton Park, Bishopsbourne, 1946 **MNE**. 25 Barham Downs, 1945 **MNE**. 14 S. of Yockletts Bank, 1945, 126462. 14 Down W of Misling Fm, Elmsted, 1962, 129451 (1 pl.). Broadway Green Fm Petham J. le B. 1951. Gorsley Wood B[isho]p[s]bourne LWW. Juniper Rough, Pett Bottom, B[isho]p[s]bourne BJB. (N side of) on Covert lanebanks, Kingston, DACL, BJB. Yockletts Bank 1978→. SE of W...ham, EB. 05, 04, 15, 14, 25, 24, 34

10) 45 Old Ragstone quarry, Dry Hill, Chevening, FSEF: 1961! **MNE**.

11) 85 Rly. cutting on Gault, Warren Wood, Leeds, Ward.

Himantoglossum Spreng.

²⁹⁵**H. hircinum** (L.) Sprengel 15, [16] 4/52 [23/52] Lizard Orchid
Native. Chalk grassland and calcareous fixed dunes: very rare, and usually occurring as sporadic single plants, but long established in quantity in 4). Very rare and sporadic only in Surrey, Sussex, and Essex: rare but persistent in several places on chalk downs in Pas de Calais.

4) Fixed dune grassland, St. Georges Links, Sandwich Bay, 360578 etc. 1924, C.G. Field-Marsham in Hb. FJH. 1944 reported; 1949, Mrs. Moore-Brabazon; 1949 DACL: 1949-62! **MNE BM**; 70 pl. '49, >200, '50; >400, '51 (372 FR); '52; 12, '53; 10, '54; 25, '55; 3 infl[orescences], '56; 3 only, '57; 50 to 60, '58; '59; '60; '61; 42, '62; - '63; -'64; -'65. Beach opposite Walmer Castle, Miss Long. By ... S. of Guilford Hotel, 1958, Mrs. K.D.R.

6) [Dartford, 1921, AC Tagg.] 1 pl. nr. water tower, above Trosley 635612, D.V. Woods, c.1950. ...field (Longfield?) Hb. Druce. Foxendown, Meopham, formerly, Baker.

²⁹⁵ In the manuscript, this follows *Ophrys*.

[Inserted in the MS Flora at this point is a sheet headed 'Himantoglossum in Kent – all records traced to 1933: compiled by P.M. Hall & W.H. Pearsall sen. on behalf of the B.E.C.' This had been copied out (not quite verbatim) by Francis Rose from a typescript in his Flora of Kent related papers, to which he had added the number of the botanical district into which the relevant record fell, as well as some further records.]

- 9) Manston Wood Thanet before 1776 (Fl.K.).
- 7) bet. Chatham & Maidstone before 1820 (Fl.K.).
- 9) nr Margate before 1839 (Fl.K.).
- 7)-8) Charing to Walmer – 27plants, 1858 Fl.K.: (1859²⁹⁶ Hb. **BM**) Oxenden.
- 8) Broome Park, Barham, 1859, Oxenden (Hb. E. Kent NHS (where is this?))
- 8) Nonington 1868, Fl.K.; 1906, Plumpton: 1912, 1929²⁹⁷, Rigden.
- 7) nr Maidstone 1875, Tempere (Hb. **K**).
- 8) Sibertswold, 1885, J. Jacob, Fl.K.: 1908, JB.
- 8) nr Wye, 1898-1908, J.B.: 1908: 1921: 1923, Cobbe in BEC/1923 p.215.
- 8) Adisham Rly bank 1908-1933. Discovered by A. Fox (ganger of platelayers) in 1908: in 1917 Fox cut a fruiting spike and scattered the seeds; in 1921, 27 plants appeared. J. Jacob saw it annually from 1908 to 1933; numbers varied from 2 to 27.
- 7) Boxley, 1909, Groom.
- 8) Whitfield, 1909, an employee of G & A Clark, Folkestone Florists.
- 8) Lyminge, 1910, 1924, 1925, C. Clark.
- 8) Bifrons Park, Bridge, 1911, teste W.H.P.
- 11) nr. Great Chart, 1912, White (Hb. Mus. Brit.).
- 8) nr Canterbury, 1915, Walker in BEC (1916) p.503 (Hb. Druce).
- 8) nr Folkestone, 1915; 1923; 1924; C' Clark & Andrews: 1930, Walker, in BEC (1930).
- 8) Waldershare, 1921, Scutt.
- 8) Dover 1924, 1927, 1930, teste W.H.P.
- 8) Betteshanger, 1924, James.
- 7) Harrietsham, 1924, SE Gazette, 15.7.24.
- 8) Petham, 1925, 3 pl, teste J. Jacob.
- ..) Otterden, nr Faversham, 1925, Maryon & Page, **BM**.
- 12) Bilsington, 1926, Kentish Express, 2.7.26.
- 7) Eastling, 1926, Kentish Express
- 8) Brabourne, 1926, Bentley.
- 8) Bishopsbourne (Charlton Park) 1926, 32, 33, J. Jacob.
- 15) Brenzett Sims 1926.
- 8) St Margarets at Cliffe, 1928, 1933, J. Jacob.
- 8) Alkham 1933, J. Jacob.
- 8) Postling, c.1938 or 9, J. Jacob.
- 8) Crundale, c.1938, reported to FR ("many plants"(?)).
- 4) St George's Links, Sandwich: Hb FJH; 1949 Miss Long (1949!); 1950; 1951 (572 seen by FR, 425 D. Harle); 1952; 1953; 1954; 1955; 1956; 1957; 1958; 1959; c.1000 wach year to →1998.
- 7) Down SW of Ospringe, 1956, 1 pl F.R. & B.J.B. (1957, 11 pl, 2 with spikes, one set seed).
- 6) Gravesend (1760-1830) Hb. **BM**.
- 6) Greenhithe 1878-9 Fl.K., 1878 Glenny (Hb. ...Wales).
- 6) Dartford, v many records.
- 6) Eynsford 1921 Hodgson (Photo, **CGE**).
- 6) Sevenoaks 1933, Knight, "The Times".
- 6) Dartford Wood Hb Turner 1775-1858 **K**.
- 1) Crayford →Dartford, Johnson 1641, Fl.K.
- 1) Puddledock **K**, 6) Lobfield = Longfield? (Hb. Druce).
- 1) Sutton at Hone, c.1800, Pocock.
- 6) Dartford, Hb. Banks, 1847-9, **BM**.
- 1) Wilmington (Stanhill) 1807, Peete, **CGE**.
- 1) W[ilmington] Hackstable 1842 **CGE**.
- 1) W[ilmington] Hexstable 1845²⁹⁸ **BM** Ellson.

²⁹⁶ Mistranscribed as 1959.

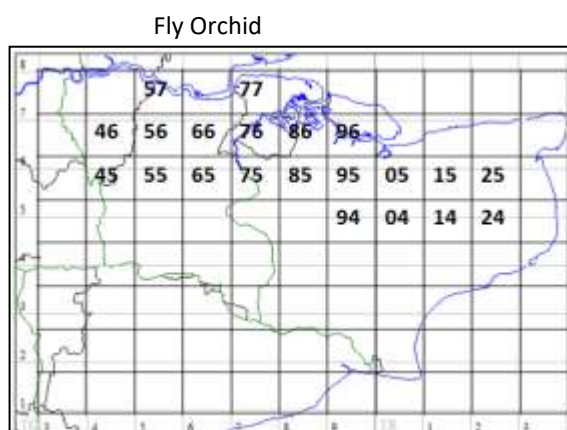
²⁹⁷ The source gives 1928.

- 6) Darenth 1831 Peete **CGE**.
 6) Green St Green (Trulling Down) 1840 Peete (Fl.K.); 1840, Salmon, **CGE**.
 6) Dartford 1841 Ansell (Hb. Druce); 1847, Potter **BM**; 1847-9, Woods in Hb. Borrer.
 1) Bexley 1851, Wollaston **CGE**. Darenth Wood, 1843, Wollaston **DVR**.
 5) Shoreham → Farningham before 1846 (Fl.K.)
 5) Knockholt, before 1845 **BM**.
 5) Chevening **K** after 1845.
 6) Ash 1850 Potter **BM**.
- 7) Wouldham Downs, 1958, F.J. Bloomfield, 1 spike (vidi photograph!). 980602 Down opposite Putt Wood, Ospringe, 1955-62; one set seed in 1957, RAC; 2 infl[orescences] in 1962. Down NW of Golf Club House, Belmont Park, 1 plant, 1959: before 1939, Mrs. Brodrick; "years ago", Mrs Finn. Downs, Harrietsham → Hollingbourne, 8 infl[orescences], 1913, G. Richardson. Queendown Warren, 1966, 2 spikes; 1967. Darland Banks, O. Davis (FR 1994!). 2 spikes nr Maidstone 1815 Prof. Tempère.
- 8) Rly bank Adisham, 1908 Fox: J. Jacob 1912-1939; teste Miss DACL, 1939. [Charlton Park, 1924, Mrs Ford; 1926 BJB, 10 pl.] [Field now ploughed, N. of Junipers Wood, Wye, formerly, LWW.] Barham Downs 1927, JG. Wood nr Longport, Crundale, 1939, Hubbard. [Postling Downs, Hyland. [Waterworks Hill, Folkestone, Clarke. St Margarets Bay, J.Jacob. Sibertswold, 1885, J. Jacob. Nonington, 1906, Plumptre.
- 11) nr. Leeds Castle, L. Smith 1914 **MNE**.
 12) nr. Ashford, 1922, M Corden, **MNE**. Gt Chart, 1912, AE White.
 15) Roadside, Brookland to Brenzett, J. Ridley, 1909 **MNE**.

²⁹⁹**Ophrys L.**

O. insectifera L. 15, 16 21/52

Native. Woodlands, scrub and grassland on chalk, widely distributed and common, often in abundance, in 5)-8); woodlands on ragstone and gault, very rare, in 11) and 21). Much less common, though locally frequent, on the chalk of Surrey and Sussex; apparently extinct in Essex; common on chalk in Pas de Calais.



- 5) Saltbox, RAC. Cuckoo Wood, Downe, 445622, DL. Darwins Bank, Downe, 1945-62. Hazel Wood, N. of Cudham, 1945. Berrys Green Wood, SW of Cudham, 1962. The Grove, Wood ¼ mile S of Cudham Church, 1949; 1958. N end of Polhill Tunnel 493625, DL. 443625, v[ery] a[bundant], nr Fox's Garage, Badgers Mount, 1953-57. Wood NW of Lusted 409584, '59, RAC. [Downe, AGD 1916 **MNE**.] 474618 W of Pratts Grove K Marsh, '55. Lattice Coppice, Pratts Bottom, 1947-62 **MNE**. Wood W. of Shoreham, 1945 **MNE**. Wood SW of Shoreham, 1951 **MNE**. W. of Timberden Bottom 507620, DL, '55. Copse W. of Newbarn Lane Cudham, 62, DL. Shellam Wood Cudham 445594, 58. Cudham Frith 58.
- 6) [Dartford AC Tagg.] Chalk pit, Cotton Lane, Stone, 565748, 1957, H.M.P. Dunstall Woods, DL, 57, 530619. White Hill, Shoreham. Greenhills Wood, 1955-1962 **MNE** 538602, DL. Preston Hill Down. Magpie Bottom W side, PCH, 545614 & 541615, 1954 E side DL. Beechwoods N. of Wrotham Xrds, A Ruck. Wrotham Water Down, 626605 & 629606. N of Crookhorn Wood, 1946 **MNE**. Wingate Wood. Upper Halling Downs. Hog Wood. High Castle Wood. W. of Knatts Valley. N. of Romney Street. Knockmill, on chalk, 1949. Purvil Wood E. of Priestwood Green, 1964. Pilgrims Way, NE of Ryarsh. Beech pl[antation] E of Peanes Wood, DWS Woods: 1953, a[bundant]! Great Crabbles Wood, Shorne, 1944; 1946 **MNE**; 1953 **MNE**; 1955 **MNE**. Wood W of Kingsdown, 1949 **MNE**. Wouldham Steps SE of Meopham 1948 **MNE**. Buckland Valley, E & W sides, H. Greenfield.
- 7) Horsted Valley BC. Walderslade Bottom BC. Wouldham, 1943. Burham Downs, E. of Church, 1955. a[bundant], Pilgrims View, Bluebell Hill, 1962. Burham Downs, purpurea copse, '55. Rainham Park Wood.

²⁹⁸ Mistranscribed as 1454.

²⁹⁹ In the manuscript, the sequence is *O. apifera*, *O. fuciflora*, *O. sphegodes*, *O. insectifera*.

Bredhurst Hurst, 1945. Purple Hill, 1945-62. **MNE** 808624. Queen Down Warren, 1949-62. High Wood, NW of Wormshill '56. Hollingbourne Hill, 1939-62. Timbolds Hill 1945 **MNE**. Copse W. of Doddington. Nr. Simia field, Sandbanks Wood, Ospringe, 1955-62. College Wood, Newnham 1945:1962. Foxbury Down, E of Lenham 1946 **MNE**. N of Bilting DAK. By ... NW of Westwell ES. N of Dunn St., 993485, '55 HMW. Belmont Park, REW. Boxley Warren **1882 MNE**. Coombe W of Detling. Gorham Wood, Bicknor. Trundle Wood, Wormshill '56. E of Scragged Oak 1965. Lords Wood Wichling 1957. Copse E. of Newnham 55. Stock Wood Frinsted, 1957. Wrinsted Court KSJ. Valley W. of Wormshill 1942 **MNE**. Filmer Wood, Wichling, 1949; 1962, 12 infl[orescences] **MNE**. Coxett Wood, Ospringe, 1955 **MNE**, 1957 **MNE**. Syndale Wood, Ospringe, 1956 **MNE**. c.40 infl[orescences] Spuckles Wood, Stalisfield, 1962. R[are], Kennelling Wood, Stalisfield, 1962. Kings Wood, S. of Park Wood, Chilham 1956 **MNE**. Challock Forest to E., ES. E of Court Lodge, Stalisfield. SE of Kennaways Ospringe 1946. Wood S of 3 Squirrels, Stockbury 1961. Longreach Wood. 1960 Hill Wood Stockbury. Church Wood, Stockbury. NW of Otterden Place 1963. Holbeam Wood, Throwley 58. S of Philpott Wood. Broomham Wood, Eastling '58. Cuckoo Wood Otterden 1958. Putt Wood Ospringe OD 1955, 1958, 1980!

8) 04 Winchcombe Down Crundale 087498. The Junipers, Wye, 067414, PCH. Long Plantation, Olantigh, 1942: 1953. Hurst Wood, Hassell St., Wye, 1943: 1961, CAS. E of Longport Crundale 1951-61 **MNE**. Wo0od SE of Crundale Ch. Mrs. B. Newgate Scrubs '55. Rob Sack's Wood Giddy Horn. Down Wood, Chilham. 15 Larkey Valley Wood, 1948 **MNE**! 05 pit, Mystole E of Chilham, DHK. E of Chilham→Denge Wood. Denton DACL (abund[ant]) **BM**. Duskins, Marley Lane, Kingston, 1939: 1956 **MNE**. Copse nr Ropersole Fm, Denton, 1946, PR Bell. Swanton Banks 1950 **MNE**, 1953 **MNE**. E of Swingfield, 1955 **MNE**. S of Chilton, Alkham, 1949 **MNE**. Sladden Wood, Alkham, 1955 **MNE**. Westwood Fm, Bishopsbourne LWW. Baving Farm. Down N. of Podlinge, 1948 **MNE**; 1962. E of Whitacre 1950. Yocketts Bank, 1962: 1995. 1 pl. Down N. of Misling Fm, Elmsted, 1962. Elham Park Wood, 1958, Mrs B. Spong Wood, MJ Comyn, 1986-90. Hunts Wood, Up[pe]r Hardres, 1962. Clavertye Wood, Elham 1958 **MNE**. SW of Deans Fm, Covert Wood, 473177, Mrs B. Frandham Wood, River, KDR. Atchester Wood LWW. Bourne Park BJB. Walderchain Wood, BJB. Burstled Wood, BJB. Lynsore Bottom. Pitt Wood, 1966. Woolwich Wood, 1956. Wood ¼ m. NW of Barfreton, 1966. S. Covert Wood in Dane Fm. Marley Lane. S.E. of Acrise E valley, 204427, 1950. Blacklands Carvet Wd woodlands, Lyminge, 1950. Coombe – Poulton Vale, Dover N side: 1955 FR; S side: 1955 BSBI.

11) Ryarsh Wood, on gault, 1936: 1943 **MNE**. Allington Wood, on ragstone, 1880, 1882 **MNE**: 1945!

12) Cadmans Wood 078432 DL, '57. "*Myosotis*" copse on gault SE of Lenham, 1946, WJLS.

A monstrosity has been reported nr. Canterbury with extra anthers: E. Ogden, BEC Rep. 1920, p.49.

O. insectifera x sphegodes = O. x hybrida Pokorný

Sepals of *sphegodes*: petals like *insectifera*: lip brown, almost as narrow as *insectifera*.

8) Long plant[at]io]n, Olantigh, Wye, 1913. Wye Downs, 1905: G. Richardson, Misses Harris & Walker. 087498 Down N. of Winchcombe Farm, Crundale, 1956, BJB; 1957, C.N. Pope (1957!); 2 in 1960, D. Lang.

O. sphegodes Miller 15, [16] 7/52 Early Spider Orchid

Native. Chalk grassland: rare, but locally very abundant in 7) at Queendown Warren; and in 8) near Wye, and in many places near the coast between Etchinghill and Deal. Apparently extinct in W. Kent. Extinct as a native in Surrey; still locally abundant in a few localities in E. Sussex, and rare in one locality in W. Sussex: extinct in Essex: extremely rare in Pas de Calais (Boffles!). The Queendown Warren plants flower always three weeks earlier than those of eastern Kent.

[**5)** W of South Street, Biggin Hill, 1947, teste D.E. Keramins.]

[**6)** Paddlesworth Downs, FJH: Fl. K. Field nr. Culverstone School, 1920? E.G. Brand. Reported on down NW of Crookhorn Wood, Snodland, c.1926 by F. Forsyth.]

4) Sandwich, St Georges Golf Links, 1880; 1882, Fawcett Osborne **MNE**; 1887, H.L. **MNE**; 1903, JB Green, **MNE**; 1905, Mrs Sil.... **MNE**; 1920, H. Elgar **MNE**; 1939 a[bandant]; 1942 v[ery] a[bandant]; 1944 r[are]; 1945 a[bandant]; 1996, KWT. Kingsdown Beach. P. Gay, 1998.

7) 86 Queen Down Warren, 829629, F.G.E.K.; 1938-1962! **MNE** usually 500-1000 plants per year; a[bandant] 1946; 1947; 1948; 1949; 1950; 1951; 250, 1952; 1953; 50, 1954; 1955; 1956; 1957; 1958; 1959; 50W, 250E, 1960; 294 H. Greenfield, 150 DL, 1961; 300 DL, 1962; 1963; 1964; 1965. Soakham Down, W. of Godmersham, 3 infl[orescences] 1951, '52, '53, Gurr & Theobald, a few plants.

QDW	Shakespeare C.	86
Crown	T. Ewell	05
Crundale		
Winchcombe	Dover C.	04

Etchinghill	Langdon Bay	13
Dover Hill	S. Foreland	23, 24
Abbotscliffe	S of Kingsdown	34
	W. of K	

8) 04 Crown 071467 Chalk-pit and Downs, Wye, Hookham; 1939-72 **MNE!** abundant most years; 30-40, 1946; 8 pl. 1952; 12, 1972; not 1997. 04 Down N. of Crundale Church, 1951, **MNE.** 04 Down NE of Winchcombe Farm, Crundale, C.N. Pope: 1957!; 12 pl. D.L. 1960!; 1983!; not 1997. Wingate Hill, Folkestone, 1994-5. 13 Downs E. of Etchinghill 1958, L.J. Margetts; c.40 pl. 1960! **MNE.** Above Danton Pinch, Newington, formerly abund[ant], DG Stanford before 1947. Folkestone Warren slopes, J. Walton. Below A.259, Dover Hill, Folkestone, 1948, 1983. 23 Castle Hill, Folkestone, 1939. 23 Sugarloaf, Folkestone, 1939 **MNE.** 23 Above Abbots Cliffe on rifle range, 1945-53 **MNE**, hundreds. 23 on undercliff slopes, Lydden Spout, 1953-61. Undercliff slopes Abbotscliff 1962, 1965. 34 Downs on top of Shakespeares Cliff, abundant, 1948-62 **MNE:** hundreds of plants. Round Downs 1983. 24 Down W of Coombe Farm, Dover, M.McFarlane, 1955. 24 Down above A2, River, RG Williams. 24 Downs W. of Woodville, Temple Ewell, abundant, 1948-60 **MNE**, hundreds of plants; 1971; 1972; 1983; 1989, 2000 infl[orescences]. 24 Bushy Rough, E. of Alkham, teste local farmer, 1949. 24 Downs E. of Woodville, Temple Ewell, 1953. 34 Cliffs E. of Dover Castle, abundant 1948 **MNE**; 1954; 1990. 34 Langdon Bay, abundant 1946-55 **MNE.** 34 above Fan Bay 1946. 34 South Foreland, abundant, 1945 **MNE**; 1946 **MNE**; 1983. 34 Free Down, Ringwould, a few plants, 1955. 34 Cliff top, Oldstairs Bay to Hope Point, 44 infl[orescences] 1955, AGS, S of Kingsdown 1946 **MNE**, 1948 **MNE.** 34 on chalky rubble, to the rear of beach, S. of Kingsdown, 1840, F.Y. Brocas **BM**, 1948! 1955 AGS 11 plants. NE & SE of Dover Patrol Memorial, 1983.

15) Dungeness in Power Station grounds, 1995, teste B. Banks. Denge Beach within Power Stn. Grounds 1995→.

O. apifera Hudson

15, 16

25/52

Bee Orchid

Native. Chalk grassland and chalk pits, very widespread and general, but only locally in abundance: ragstone quarries, sandpits, and road verges off the chalk, quite rare and rather sporadic. Common on chalk, rare off it, in Surrey and Sussex, rare in Essex, common in Pas de Calais.

1) Ruxley Gravel pits, abundant, 1965. Ruxley Gravel pits, F. Holroyde, 1962.

2) Stone marshes, on chalk rubble GMB.

3) Sturry Hill Gravel pit, 175607, 1954-55, Jane Hyde.

4) 35 Beach opp. Walmer Castle, 1950, M.E.M.; 1957 BN.

5) Morants C[our]t Hill Chalk pit, FSGF. Saltbox Down, 1966. Darwins Bank, Downe, '62. Downe Golf Course. Downe AGD 1916 **MNE.** Downs above Tunnel, Polhill, 1948 **MNE** 1952, 505603. S of Pratts Bottom, 1947. W. of Northstead, Cudham, 458609, '58, DL. Chevening Park. W. of Shoreham 514619, '55, DL. 447564 E of Westerham Hill above Pilgrim Ho, DL. E of Badgers Mount 504623, DL. W side Timberden Bottom in copse, 507619 DL & 504623.

45,46

6) Tower Hill, upnor, DMcC 7 JEL. Goreswood Rd Hartley, 605665 HMP. [Northfleet, R. Pocock, 1812.] Beesfield, Farningham EG Brand. Down SE of Shoreham 530609. a[bundant], Whitehill, Shoreham 529612, '54 DL, '57. Top Chalk pit E of Otford 549594, DL. Kemsing Downs, abund NW of Village, 1954. 42 infl[orescences], chalk Pit NW of Horns Cross, 1962. Pit NW of Craylands Lane, Swanscombe. E. of Lower Austin Lodge, Eynsford, 1949 **MNE.** S. of Park Wood, Eynsford, 1949. Down S. of Hog Wood, abund. 1949. By High Castle Wood, 1949. NW of Kingsdown 1949 **MNE.** Magpie Bottom 543612. E of Pennis Wood, D.V.S. Woods. 67 Chalkpit Swanscombe HAB. Rd verge Gores wood Rd, Hartley, 605665, 1961 H.M.P.³⁰⁰ [S of mounts wood, J Priest.] Hogmore Fm Down 623600 dL. Wrotham Water Downs 1936-62 **MNE** 626604, 200, 1962 DL. Trottiscliffe, W. of Pilgrim House PCH (EJ Sheppard 1898 **MNE**). Trottiscliffe N. of church. Snodland Downs. 609597 Wrotham A20 pit, DMcC. Hatch Hill, Luddesdown 675655 AGS. 55, 65, 56, 66, 57, 67

7) Burham Downs, 1956→1998. Lawn, Pilgrims View, Bluebell Hill, 1962-98. Horsted Valley BC. Bluebell Hill BC. Walderslade Bottom, BC. Bredhurst Hurst. Queen Down Warren, 1879, Fawcett Osborne **MNE** 1937-62!

³⁰⁰ A duplicated record.

830629, 1996. *Simia* field, Ospringe, HMW. Putts Wood, N end, ES. Simia Down HMW. a[abundant] Down N of Dunn St 1950 ES. Downs N of Bilting, DHK. Godmersham Downs, 1946. Soakham Downs, RTh. Suomi, Westwell, ES: REW.

75, 85, 95, 76, 86, 96, 94

8) Wye Crown Downs 071466. Downs N of Crundale Church, l[ocally] a[abundant]. Broad Downs, Brook, o[ccasional], 1962: 19 pl '64. Down, EWE of Giddy Horn, l[ocal], 1962. Down N. of Podlinge, o[ccasional], 1962. Brook Hillock, 1949 **MNE**. Downs N. of Winchcombe Farm. Downs E of Longport, 1949 **MNE**. Elmsted. Parkgate Downs, Elham, 1955 **MNE**, 1957 **MNE**, 1961. SW of Dane Fm, 195474, Mrs B. l[ocally] a[abundant] Shakespeares Cliff, R. Chambers. Postling Downs, 1942-56 **MNE**: 1958, LJM. Chalk pit, Danton Pinch, Kennington, DG Standford 1954 REW. Cheriton Downs. Wolverton, Alkham. Bourne Park BJB. Charlton Park BJB. Barham Downs BJB. Castle Hill, Folkestone 1949 **MNE**: 1954 **MNE**, '62. St Margarets Bay BJB. Down Gt Shuttlesfield Fm, Lyminge. Folkestone Hill 1953-62. Sugarloaf, 1938 **MNE**: 1946 **MNE**: 1962. Crabble Downs. Dover E. Cliff KDR. Downs nr Coombe Wood, Etchinghill LJM.

13, 23, 04, 14, 24, 34, 05, 15, 35, 36

9) Behind Broadstairs, L.W.W.

10) Ragstone pit, Dry Hill, Chevening 596459³⁰¹, F.S.E. Fawkes 1953 **MNE**. Ightham Mote, Miss V.E. Buxton.

11) Borough Green, Basted Quarry, 1948 Miss Nisbett. Sandpit, Sandway, 1962, Mrs. B. Dodds. Ditton S. Quarry, C. West. Ditton Laboratory, C. West. Bearsted 1935 **MNE**. Pluckley Brickworks, ES.

12) Hothfield Heath, one plant on clay patch, 1944 **MNE**. Mersham, in Ragstone Quarry, 1907, Miss D. Hancock **MNE**: 1946, C.N. Pope.

[13] Opposite Timberlog Wood, Lamberhurst: one plant, 1941, JRW.] Bayham, 1947, Mrs BE Scott.

16) The Roughs, (ragstone) W of Hythe LJM. Tanners Hill Hythe, 1 pl., LJM 1958.

O. apifera x **fuciflora** = **O. x albertiana** Camus

8) Downs above Brook, 1949. Between Folkestone and Dover, H. Walker and Major JW Harris, BEC Rep (1920) p.49. Albino: [St. Margarets Bay, S. Foreland, pre 1898, A.D. Webster.], Folkestone W.W. [Water Works?], VFP Day 1953.

O. apifera x **sphegodes** = **O. x pseudapifera** Caldesi³⁰²

8) a plant which may be this at Brook Hillock 1942-58. Folkestone Downs. Cheriton Downs.

(**O. trollii** does not occur in Kent.)

O. fuciflora (Crantz) Moench

15

4/52

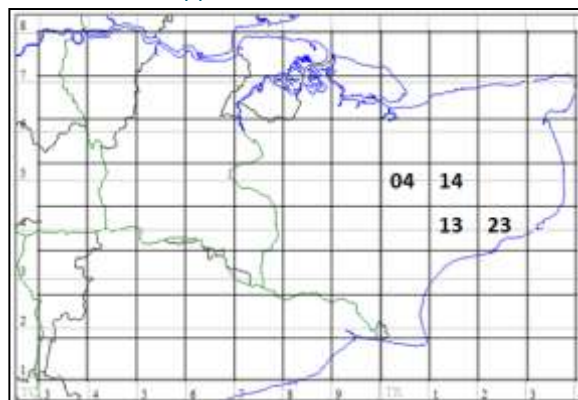
Late Spider Orchid

Native. Chalk grassland: rare, and now confined to about 16 localities in 8) between Wye and Folkestone: formerly in 7). This species occurs nowhere else in the British Isles. It appears to have become extinct in Pas de Calais (at Blanc Nez till 1939), but it is still plentiful in the Somme above Amiens.

(6) Trosley 666618 Mrs. DVS Woods, 1 pl.) [Ospringe, extinct]

7) "Godmersham", Hon. E. Legge, BEC Rep 1924 (p.598, no confirmation). The Bilting record in SE Nat (1954) is an error.

8) above Winchcombe, Crundale, 1963, Rev. A.C. Cawston (088495?)³⁰³. 04 Hillock E. of Brook, 085437, 1942, R.H. & E. Lepper 1942! 13 pl.; 1943 -23 pl. **MNE**; 1945 -6 pl.; 1946 -15 pl.; 1947 -4 pl.; 1948 - c.100 pl.; 1949 >100 pl.; 1950 **MNE**; 1956 -35 pl., DL, 60 infl[orescences] BJB, 1953 **MNE**, 1955 **MNE**, Bulldozed, 1958: 5 spikes, 1962, FR & ECW. Above Fishponds Farm 1995! 04 Cuckolds Coomb, 1962, D. Cattlin, ?083446, 1995! [not 38, 1987 RFr.]³⁰⁴ 1995, 12 pl. 04 Broad Down, 077451, 1 pl., 1962: more frequent now (1975), 1995. 04 [Coombe at Stowting Downs, **BM**, Fl. K.] Ravine S of Hastingleigh, 086436 main site, E.



³⁰¹ The figure 4 in 596459 has been deleted, but the entire grid reference is incorrect for Dry Hill and should presumably be 500552. It has been ruled off from the entry below, at Basted Quarry, but a reference of 596559 would not be far from that location.

³⁰² Given by Francis Rose as *O. x pseudoapifera* Caldesio, but, irrespective of the validity of either version of the name, the cross is not currently recognised as part of the British flora.

³⁰³ Winchcombe site recognised by Francis Rose as in error (note on letter from Nick Stewart, 16 February 1998).

³⁰⁴ This passage is unclear.

Scott: 1959-62! 43 spikes, 1961, 6 pl. 1980, NCC. 13 Postling Down 1942: 1945: **MNE**, 1946 – 12 pl., 144394 to 145393. (13 West of Postling Down, 138394, 1 pl., 1945, not since c.1960.) 13 Tolsford Hill, Postling, 157381 to 156382, 1 pl. 1958, L.J. Margetts (short turf above W[ater] W[orks] outlet). 14 Down by Shuttlesfield Farm, E. of Lyminge, 1939 BJB 1946! (20 pl.); 1951 **MNE**; 1955, 4 infl[orescences] BJB; 1958, 4 infl[orescences] BJB; 1978 10 pl!; 1979, 1980 none seen; 1991, 25 pl. 14 Parkgate Down, NW of Elham, 1955, F.R. & E. Scott; 1958 (20 infl[orescences]; 1959 **MNE**; 1961; 1963 (7 infl[orescences]); 1980, 1 pl. 13 Down E of Etchingfield, 1958, 8 infl[orescences] L.J. Margetts; 1998, 41 infl[orescences], FR & PG. SW of Arpinge 183384, 1991, R. Rayne; FR! (>30 pl. 1997!). 13 Above Newington Quarry, 1954 R.E. Wood, not seen 1955 Mrs B. 23 Cheriton Downs, BJB: 1939! 1945 (27 pl.), 1960 (1 pl.). N. of Crete Rd, 209303, 6 spikes J. Cadbury 1961. **MNE** 2017382, 1980, c. 12 [in]fl[or]scens[es]. 23 Castle Hill, Folkestone, 1945-54, **MNE**. 23 Scarp W. of Folkestone Hill 216182³⁰⁵, 1953-62; up to 100 pl. seen per annum 215381 (30 pl. 1961 KDR), 20 pl. 1962, 1963! 23 S. side of Sugarloaf Hill, 223377, 1938 **MNE**, 1946, 20 pl. 1961 KDR. 23 E. side of Sugarloaf Hill, 224378, Mrs K.D. Rowlands, 30 pl. 1962 (1962!). [The Warren, Folkestone, c.245378, H. Lamb, 1909 **MNE** / F. Forsyth: not reported for about 25 years.] N of Holywell, 1981, 223384. [reported 30-60 yrs ago in Alkham Valley, KDR.³⁰⁶] W of Arpinge, on S side of first spur of scarp NW of Newington, 20 pl. 1991(?), 41 pl. 1998 Above the Cherry Gardens, CPSK – 1986-97. [Nr. Walmer Castle, 1837, Little, **EDIN**, probably extinct.]
[11] 1 pl. appeared in garden by A.20, Hollingbourne, J.R. Justice, 1949-]

O. fuciflora x **sphegodes** = **O** x **obscura** G. Beck

8) Apparently this on Downs E. of Etchinghill, with the parents, 1958, L.J. Margetts. Cheriton Downs, 1945, Miss D.A.C. Long.

O. scolopax Cav.

[Given in Francis Rose's The Orchids of Kent List, but no account in manuscript.]

Serapias cordigera L.

[Given in Francis Rose's The Orchids of Kent List, but no account in manuscript.]

.

³⁰⁵ This gridreference is incorrect; TR 216 382 may have been intended.

³⁰⁶ Alkham Valley site recognised by Francis Rose as in error (note on letter from Nick Stewart, 16 February 1998).

List of abbreviations in Francis Rose's manuscript Flora of Kent.

Recorders' names are generally given as initials, and abbreviations are also used for the standard county flora and some other things. No list was given in the manuscript by which these references may be interpreted, so the following list has been pieced together by surmise and with reference to Francis Rose's correspondence, to labels on herbarium specimens, to the list given in Rose (1960) and those occasional cases in the manuscript where a name has been expanded.

AA	Anna Atkins	ER	E. Robinson
ABS		ES	Dr. E. Scott
SBJ	A.B. Jackson	ESM	E.S. Marshall
AGS	Trudy Side	FGEK	
AHB	A.H. Wolley Dod	FJH	Frederick J. Hanbury
AHWD		FHB	Frank Brightman
APB	A.P. Brown	FJE	F.J. Epps
ASK		<i>Fl Met</i>	Daniel Cooper (1836) <i>Flora</i> Metropolitana
ATT		FMW	F.M. Webb
BB		Fl. Lond.	W.J. Hooker (1821) <i>Flora</i> Londinensis v4
BC		Fl. Ton.	T.F. Forster (1816) <i>Flora</i> Tonbrigensis
BD	Mrs Barbara Dodds	Fl. T.W.	E. Jenner (1845) <i>Flora</i> of Tunbridge Wells
BJB	B. Jocelyn Brooke	FR	Francis Rose
BM	Natural History Museum Herbarium	FRB	F.R. Browning
BN	Miss B. Nash	FSEF	Mr F.S.E. Fawkes
BRIST	University of Bristol (Herbarium)	FWES	F.W.E. Shrivell
BW	B. Welch	GAM	
CAL	C.A. Lister	GB	Mr G. Brown
CAS	Clive Stace	GBS	G.B. Shaw
CC		GCD	George Claridge Druce
CCT	Clifford Charles Townsend	GES	Gerard Edward Smith [NB, G.E. Shaw was also a contributor]
CEB	Charles Edward Britton	GHM or	
CEH	Charles Edward Hubbard	GM	George Morgan
CES	C.E. Salmon	GL	
CNP	Colin Pope	GMB	G.M. Brown
CPSK		GOP	
CS	Clive Stace	H&M	Hanbury, F.J. & Marshall, E.S. (1899) <i>Flora</i> of Kent
CT		Hanbr	F.J. Hanbury
CW	Dr. Cyril West	HAS	
DACL	Mr D.A.C. Long	Hb.	Herbarium
DG	D. Gattlin	HCW	Hewett Cottrell Watson
DHK	Douglas H. Kent	HL	Henry Lamb
Dill.	Dillenius	HMP	H.M. Pratt
DL	David Lang	HNC	H.N. Crampton
DMcC	David McClintock	HMW or	
DPY	D.P. Young	HW	Hector Wilks
DR	Mrs. D. Rowlands	HWA	H.W. Adams
DS	David Streeter	HWP	H.W. Pugsley
DVW	D.V. Woods	JBM	J. Braybrooke Marshall
EBB	E.B. Bishop	JEL	J.E. Lousley
EBBa	E.B. Bangerter	JED	J.E. Dandy
ECW	E.C. Wallace	JFPD	
E de C	Eyre de Crespingy	JGL	
EGP or		JH?	J. Hibbard? J. Hepworth?
EP	Eric Philp	JHL	
EMH			
EN	Ernest Nelves		

JHPS	Mr J.H.P. Sankey	PWR	
JM	John Moor	PWW	Peter W. Wilberforce
JMS	J.M. Sherwood {Sherwell?}	RAB	R.A. Boniface
JO		RC	Ray Clarke
JPM		R.E. Sh.	R.E. Shorrocks
JPMB	J.P.M. Brennan	REW	R.E. Wood
JRW		RG	Mr R. Gorer
JSM	John Stuart Mill	RGW	Mr. R.G. Williams
KDR	K.D. Rowlands	RMP	R.M. Payne
KEB	Kenneth E. Bull	RoF	Rosemary FitzGerald
KFC	Kent Field Club	RP	Robert Pocock
L	(in Hb L): Louseley's herbarium	RSRF	Mr R.S.R. Fitter
LJM	Len Margetts	RWB	R.W. Butcher
LNHS	London Natural History Society	SAS	
LRAG	L.R.A. Grove	S&S	N.I. & C.I. Sandwith?
LWW		SEC	
Lady D	Lady Davy	SMW	Dr. S. Max Walters
M&G	Milne & Gordon	St J M	St John Marriott
Martyn	Thomas Martyn (1763) <i>Plantae Cantabrigienses</i>	Syn	John Ray (1724) <i>Synopsis methodica stirpium Britannicarum</i>
MEM	Miss M.E. Milward	TDVS	Dr. T.D.V. Swinscow
Mrs. B	Mrs. Brickeden	TEL	
NBG	New Botanist's Guide (H.C. Watson, 1835-7)	TGT	T.G. Tutin
NHS	Natural History Society	TLS	Tunbridge Wells Museum & Art Gallery
NT			herbarium (various abbreviations have been converted to this in editing)
OBG		VFPD	Vera Day
OD	Owen Davis	WJLS	
P & JH	Mr & Mrs P. Hall	WOH	W.O. Howarth
PCH	P.C. Hall	WWR	W.W. Reeves
Pl. Fav.	<i>Plantae Favershamienses</i>		
PRB	P.R. Bell		
PT	Miss P. Topham		

Acknowledgements

Assistance is gratefully acknowledged from Joyce Pitt and Rosemary FitzGerald, who provided photocopies of parts of the original manuscript; from Owen Mountford, who produced notes from his consultation of the manuscript in the 1980s; from Phyllis Davis, who kindly gave access to typescripts prepared by the late Owen Davis in collaboration with Francis Rose, with related material; from David Pearman, who encouraged the pursuit of traces of the missing Flora; and from David Streeter, Anna Rose and Andrew Rose, who brought to light the greater part of the original manuscript.

Geoffrey Kitchener, 2016-20

rev. Feb 2020: V9