Kent Rare Plant Register

Draft species accounts

C (second part: Ce-Ch)



Compiled by Geoffrey Kitchener and the Kent Botanical Recording Group
Issue date: February 2021

Kent rare plant register

This section of the register covers:

In Part Ca:
Callitriche truncata
Calystegia soldanella
Campanula glomerata
Campanula rotundifolia
Cardamine bulbifera
Cardamine impatiens
Carex canescens
Carex divisa
Carex echinata
Carex elata
Carex elongata
Carex extensa
Carex lepidocarpa
Carex nigra
Carex panicea
Carex pulicaris
Carex rostrata
Carex vesicaria
Carex vulpina
Calina vulgaris
Catabrosa aquatica

In Part Ce-Ch:
Centaurea calcitrapa
Centaurea cyanus
Cephalanthera damasonium
Cerastium arvense
Chaenorhinum origanifolium
Chamaemelum nobile
Chenopodiastrum murale
Chenopodium vulvaria

In Part Ci-Cy:
Cichorum intybus
Cicuta virosa
Cirsium eriophorum
Cladium mariscus
Clinopodium acinos
Clinopodium nepeta
Comarum palustre
Crassula tillaea
Crepis foetida
Cruciata laevipes
Cuscuta epithymum
Cynoglossum officinale

It is issued in draft, pending further development. Records, photographs and information regarding the occurrences of these plants in Kent will be welcome. The register accounts give priority to data from 2010 onwards, but some historic data are also included (however, in the data tables, generally no specific sites without post-1970 records) so as to indicate trends and where the plant may yet be discovered or rediscovered. Distribution maps for records from 2010 onwards show the boundary between vice counties 15 and 16 by a black line. See the Kent webpage of the BSBI website at https://bsbi.org/kent for the full Kent rare plant register list, the introduction to the register and a list of 'probably extinct' Kent plants.

Abbreviations used in the text:

Recorders' initials:

AC Andrew Craven
AG Alfred Gay
AH A.C.B. Henderson
AS Alan Showler
BB Brian Banks
BBe Ben Benatt
BF Brian Ferry
BG Bob Gomes
BH B. Hawkes
BS Bob Scott
BW Brian Woodhams
CH C.Harris
CJC & AP James Cadbury & A. Parker
CO Colin Osborne
CP Chris Pogson
CR Chris Rose
DC Danny Chesterman
DG Doug Grant
DH Don Hardwick
DM Daphne Mills
DN David Nicolle
DW D. Worsfold
EB Enid Barrie
EGP Eric Philp
ES E. Scott
FB Fred Booth
FR Francis Rose
FRB F.R. Bryson
GB Bill Brook
GK Geoffrey Kitchener
JA Jan Armishaw
JC Juliet Cairns
JEL J.E. Lousley
JH J.Hendey
JL J.Lockward
JLM J. Le Mesurier
JP Joyce Pitt
JRP John Palmer
L&DH Lorna & Derek Holland
LBB L. Breda Burt
LM Lesley Mason
LR Lliam Rooney
MG Margot Godfrey
MH Margaret Holdaway
MP Mike Porter
MCS Mary Clare Sheahan
MW M. Waite
NH N. Holmes
NR N.Riddiford
NS Nick Stewart
OL Owen Leyshon
PB Peter Bassett
PG Phil Green
PH Peter Hodge
PHe Peter Heathcote
Pho P. Horton
RB R.A. Boniface
RC Ray Clarke
RD Dick David
RF Lady Rosemary FitzGerald
RG Bob Gomes
RM Richard Moyse
RMB Rodney Burton
RP R.D. Porley
RPe Robert Pennington
RS R.M.Stokes
RW R.H. Woodall
RWD R.W. David
SB Sue Buckingham
SC Steve Coates
SDA Stephanie D'Agorne
SL Stephen Lemon
SP Sue Poyser
TI Tim Inskipp

Other abbreviations:

BBS British Bryological Society
KBRG Kent Botanical Recording Group
KFC Kent Field Club
KWT Kent Wildlife Trust
MNE Maidstone Museum Herbarium
MOD Ministry of Defence
RNR roadside nature reserve
WFS Wild Flower Society

Centaurea calcitrapa L. (Red Star-thistle)

Draft account

vc 15; gone from vc 16

Rarity / scarcity status

Centaurea calcitrapa is generally treated as an ancient introduction or archaeophyte in Great Britain (subject to differing views as regards possible native status, particularly in Sussex); but former sources of continued re-introduction such as with lucerne or clover seed, following improved seed-cleaning, no longer supply widespread casual occurrences. In Great Britain, the remaining populations are in Kent and Sussex, and it is regarded as **nationally rare** and **Endangered**, both in Great Britain as a whole and in England. It is a UK Biodiversity Action Plan priority species, and the plan calls for research into management requirements for implementation at extant and historic sites; consideration of measures to expand populations from centre of range and to connect isolated sites; and survey / monitoring.

In Kent it appears to have been reduced to two sites, neither currently (2020) suitable, and is accordingly **rare**, if not extinct in the county, notwithstanding its significance in the national context.

Darland Banks. Photo by Daphne Mills, 2011



Account

The first Kent records are by Thomas Johnson, on both of his botanical journeys in the county. On 15 July 1629, the species was encountered in travelling from Stoke to Cliffe via High Halstow and Cooling (*Iter Plantarum*, 1629); and on 2 August 1632 it was recorded at Thanet (*Descriptio Itineris*, 1632). These early dates are relevant to the issue of the Kent status of Red Star-thistle, whether native or introduced. If the source of introduction of the species is taken to be foreign seed of lucerne or clover (and Hanbury and Marshall mention an occurrence near Crockham Hill, perhaps introduced with foreign clover seed), then these first records appear unlikely to have such an origin, as they precede the general use of these crops. "Clover, lucerne and sainfoin had made their first tentative appearance in the 1620s-1630s, but they had commended themselves to only a few enthusiasts, mostly gentlemen concerned with fodder for their best horses...after 1660...clover was incorporated in the arable rotation and forged ahead...Lucerne, on the other hand, suffered from the belief that preparation of the soil for this crop was laborious, and only gentleman could afford it. Seed was usually bought it France in early days" (Joan Thirsk, 1997, *Alternative Agriculture: A History*).

Hanbury and Marshall (1899) assessed its Kent status as native or denizen, presumably on the basis that different occurrences were of different standing; and Marshall in the *Victoria History of the County of Kent* (1908) maintained that some *Centaurea* spp. had no claim to be native, "but *C. Calcitrapa*, L. is probably so on

the coast". Francis Rose described it as 'Probably native. Dry grasslands and banks on chalk near the Thames, Medway and Stour estuaries and in Thanet: rare, but still locally plentiful, though less frequent than formerly. It occurs in similar habitats near the Sussex coast and in the Somme estuary, and in these areas is probably native.'

Even supposing Red Star-thistle to have been a native in Kent, whether the most recent records are of native origin is not wholly determinable. The Wateringbury record given in the following table was a clear non-native, being a wool alien (and as wool shoddy has not been spread for many years, this is no longer a source of introduction). The Darland Banks site has a limited history (albeit at least back to 1938) and natural reproduction of the colony has been supplemented with cultivated plants from the same stock; its persistence is also assisted by Kent Wildlife Trust's control of competitive vegetation. The Chatham (Great Lines) site has (or had) the best recent Kent claim to potential native status (although not recognised as such by M. J. Wiggington (1999)[1]., with sightings at least back to 1839, when it was included in a list supplied to and published by M.H. Cowell as recorded "on the hill, and flds abt. C[hatham]" (*Floral Guide for East Kent*). However, part of the Great Lines site has been taken up by a nearby school and discontinuance of pony grazing latterly (possibly in the interests of tidying up the Great Lines Heritage Park) has reduced the disturbance needed by the species, and it has apparently ceased to occur here. The location (on 7 August 2020, SP & DG, pers. comm.) has a thick grass sward in the absence of grazing, and is no longer suitable for the species.

Centaurea calcitrapa is a biennial of dry sandy or light chalky soils, on disturbed tracksides, banks or waste ground. Its seeds have no particular dispersal mechanism and are relatively heavy, so that they will drop near the parent plant and rely upon either erosion of slopes or subsequent disturbance to provide conditions for germination and establishment. In its recent Kent sites, this disturbance has been afforded by ponies, and removal of stock has had a deleterious effect on the Red Star-thistle. It seems possible that previous population fluctuations have related to changes in the pattern of disturbance. The species appears to have good viability in the seed bank, and has a reputation for return after absence.

Site	Grid reference	Site status	Last record date	Recorder	Comments
Great Lines, Chatham	TQ7665		(1) 1992 (2) 1991 (3) 9 August 1985	(1) RM & FB (2) RM, FB & CH (3) RF	The site (TQ 766 675) has been searched in 2011 without success; the species is believed to have disappeared recently when pony grazing ceased. There had previously been continuity of records well back into the 19th century. A further check in 2012 (FB) revealed that the former main site (once a fenced-off pony-grazed area) had become covered with scrub, trees and dense vegetation. The adjoining rough pathway which also held a strong scattered colony had been replaced with a hard surface path. Another informal pathway has also been replaced. Edges of other informal pathways in the vicinity were checked but the Star-thistle could not be found. In 2020 the site was covered by a thick grass sward. (1) Eighty-one in two colonies (25

[1] M.J. Wiggington, *Centaurea calicitrapa* L. (Asteraceae) in (ed. M.J. Wiggington, 1999) *British Red Data Books 1 Vascular Plants*, JNCC.

					and 56). Serious decline from 1991. (2) 300+ plants seen. (3) A total of 73 plants, the majority in a rough field with ponies, in a trampled area along fence and scattered on chalk spoil mounds.
Darland Banks	TQ7766	KWT managed reserve	(1) 23 July 2020 (2) 20 August 2015 (3) 7 September 2013 (4) August 2012 (5) 26 July 2011 (6) 1992 (7) 1991 (8) 1 August 1987 (9) 28 August 1938	(1) RPe (2) DH (3) CO (4)&(5) FB & DM (6) FB (7) FB, RM, CH. (8) RF (9) FRB	(1) TQ 7777 6658, twenty plus flower stalks in area where KWT does some work each year to ensure not swamped by brambles and grass. (2) Disturbed chalk grassland, eight plants, of which three sampled for Kew Millennium Seed Bank. (3) 14 plants, going over with last touches of green in leaves. (4) Three small patches, in area cut and cleared by KWT. (5) TQ 77785 66592, four strong patches c. 4 ft across, where FB saw it last several years ago. Has been told by KWT volunteer that plant has had some artificial support with re-introduction from garden-grown plants from original stock. (6) TQ 778 666; 36 plants (14 flowering) and 1 sq metre of seedlings. (7) TQ 778 666; several hundred plants. (8) About 12 mature plants plus some first year rosettes, on a grassy bank 50m from NW corner of the Banks (mown in September). (9).Near Star Mill Lane, Darland Banks (specimen in **MNE**).
Darland Banks	TQ7865		1979	AH	Two plants on area grazed by tethered ponies.



Darland Banks. Photo by Daphne Mills, 2011

Centaurea cyanus L. (Cornflower)

Draft account.

vc 15 and 16

Rarity / scarcity status

Cornflower was historically a widespread cornfield weed in the British Isles, an archaeophyte dating back to the Iron Age. It suffered a major decline in the twentieth century, probably due to the use of herbicides and improved seed cleaning, and became a British Red Data Book species, designated as endangered. Its current English and Great British conservation status is of 'Least Concern'. This is not because of any recovery of its former populations, but because its extensive occurrences as a garden escape or from sowings of wildflower seed mixes has made it difficult to distinguish between origin from old established cornfield populations and these recent casual or introduced occurrences.



Sarre. Photo by Lliam Rooney, 9 July 2010.

It is uncommon in Kent, but falls just short of qualifying as rare or scarce in the county. Its inclusion in the rare plant register is due to its designation as a priority species under the UK Biodiversity Action Plan, albeit that in 2007 it was thought that only 34% of the 10km squares in which it was nationally recorded held "naturally occurring" populations. The plan proposes a database of all current and historically recorded arable sites to help identify priority populations and areas for conservation; also to make available appropriate agri-environment options for farmers to deliver the plant's needs; and in arable plant priority areas to ensure survey and research are undertake before various schemes are approved.

Account

Centaurea cyanus appears to be a late introduction in Britain, its archaeology being mediaeval. Its seeds, and what appeared to be two flower-heads, have been identified with charred grain deposits associated with mediaeval (early 13th to late 14th centuries) baking and perhaps brewing, at Westwood, Thanet[2]. The first Kent botanical records are by Thomas Johnson, on both of his botanical journeys in the county. On 13 July 1629, the species was encountered in travelling after dinner by the main road from Gravesend to Rochester (*Iter Plantarum*, 1629); and on 2 August 1632 it was recorded at Thanet (*Descriptio Itineris*, 1632).

Although it is often thought of as a common arable weed in the past, Hanbury and Marshall's (1899) assessment was that "it can scarcely be called a common Kentish plant", although widespread and "not unfrequent" in fields, especially on the chalk. Thereafter, it is a story of decline with agricultural changes, so that in the 1971-80 survey published as Philp (1982), all records (11 tetrads in the administrative county) appeared to relate to escapes from cultivation, on rubbish-tips, roadsides and waste places. The position in Philp (2010) is broadly similar (12 tetrads[3]), but with recognition of some more traditional occurrences on deeply ploughed cornfields. Whilst Cornflower seed is often cited as having viability for at least four years, this

[2] Powell, A.B. (n.d.) Baking and brewing in a mediaeval settlement at Star Lane, Westwood, Thanet. Wessex Archaeology.

[3] TQ56H, TQ65X, TQ66V, TQ67B, TQ67C, TQ75D, TQ75E, TQ76E, TQ83U, TR05U, TR26S, TR36L.

may considerably understated. Evidence of the longevity of the seed-bank is afforded by the discovery in 1999 of *Centaurea cyanus* in the course of development of Kingshill, West Malling on a soil heap likely to represent the first disturbance since the 1930s of an area not under cultivation for over 100 years.

Cornflower is an annual and thought to be largely autumn-germinating, in which case it is best suited to an arable cultivation regime involving autumn-sown crops. There is no known Kent arable population which is long-persistent. Even the occurrence of arable margin plants needs to be considered with caution, as more likely to represent deliberate sowing than origin from an historic seed-bank.

One of the most convincing recent sightings was in 2014, in an autumn-sown wheatfield near Bough Beech, where ten plants were found by Stephen Lemon (plus one picked specimen found lying on the ground). Pointers to non-introduced status were the random scatter of plants in the field, not confined to the edges, and the absence of any white-flowered variants. The farmer had not sown the plants and indeed had been unaware of them; he had omitted herbicidal treatment through lack of time, which accordingly had provided an opportunity for the Cornflower to appear.



Bough Beech. Photo by Stephen Lemon, 14 July 2014

The following table does not include all recent records. Those which appear to have been obvious introductions or their progeny are omitted.

Site	Grid reference	Site status	Last record date	Recorder	Comments
East of Bough Beech reservoir	TQ4948, TQ4949		14-16 July 2014	SL	On 14 July, nine plants were seen in flower, singles spread out randomly throughout a wheat crop, not confined to the edges of the field or obviously favouring the weedier areas, although they were easier to spot where the crop was less dominating: TQ 49142 48811, TQ 49198 48785, TQ 49185 48754, TQ 49061 48735, TQ 49061 48741, TQ 49048 48713, TQ 49042 48709, TQ 49043 48703 and TQ 49031 48697. The farmer confirmed he had not sown it and was not aware the species was there, the wheat was sown last Autumn. He did not spray the field with herbicide as he left it too late to do so. On 16 July, a further plant was seen by SL with PB, this one at the most northerly point of the field, TQ49131 49015, so extending the

					range of discovered occurrence and providing further evidence of seed-bank origin.
Trottiscliffe	TQ6460		4 June 2011	L&DH	A large plant in flower at the edge of the cornfield (Pinesfield Lane, TQ 64871 60710).
Whetsted	TQ6646		1 June 2019	GK	TQ 6664 4655 to TQ 6668 4656 west of A228, in tall *Lolium perenne* ley, presumably former arable, c.22 scattered plants. Origin not obvious, but potential for seed-bank origin. Public footpath at west end of field, but plants away from this.
West Malling airfield (now Kingshill).	TQ6854	Developed site	1999	FB & EGP	On bank of top-soil, and likely to be a product of the first soil disturbance here at least since the 1930s, with cultivation not having taken place for over 100 years. *Agrostemma githago* and *Hyoscyamus niger* also present.
Higham	TQ7171		26 May 2014	SP & DG	Two plants in edge of rape field, Hermitage Road.
Bluebell Hill	TQ7560		22 September 2016	SP & DG	In grass ley at bottom of Bluebell Hill, not recently sown so far as recorders aware.
Belttringe	TR2068		16 June 2018	CO	Single plant on cliff, no bird seed or alien plants nearby.
Sarre	TR2665		9 July 2010	JA	TR26127 65526: extensive patches along one side of cornfield nearest road.

Bough Beech. Photo by Stephen Lemon, 14 July 2014



Cephalanthera damasonium (Mill.) Druce (White Helleborine)

Draft account

vc 15 and 16

Rarity / scarcity status

In the British Isles, White Helleborine is restricted to southern England, excluding the west; and there has been a marked trend of losses, perhaps related to clearance of its woodland habitats, which gives rise to its status as **Vulnerabl**e, both in relation to England and to Great Britain as a whole. It is also a UK Biodiversity Action Plans priority species, for which the plan entails investigation of the causes of decline and determination of optimum management regimes; trial implementation and roll-out; improvement of connectivity between existing and extant sites and increasing opportunities for colonisation; sample monitoring and survey; and ensuring that delivery plans for national forestry strategies include management options to provide appropriate conditions (considered to be open glades, rides, woodland edges and seasonal grazing to control bramble).

In Kent, the species is not uncommon in beech woods on chalk, and does not warrant designation for rarity or scarcity.



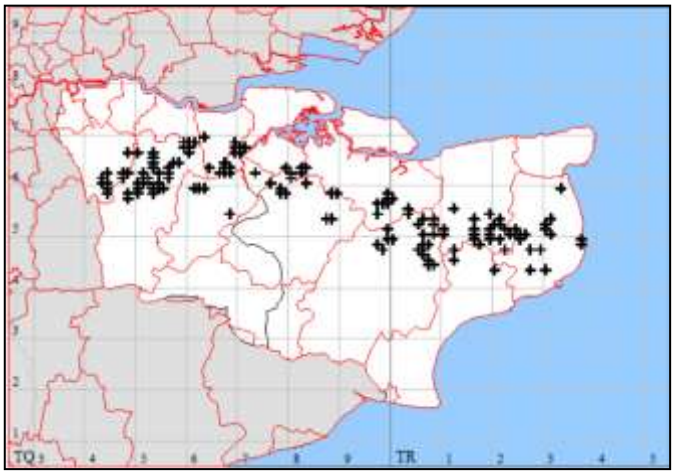
Fridhill Wood. Photo by Lliam Rooney, 2 June 2010

Account

The first mention of *Cephalanthera damasonium* in Kent is in a letter of 1671 from Sir Philip Skippon to John Ray, in which he states that Thomas Willisell "hath discovered *Helleborine flo. albo* to grow a Mile on this Side *Green-Hithe*, in a Valley near a Church"[4]. Hanbury and Marshall (1899) regarded it as locally abundant in woods on or near the chalk, usually under beeches: frequent along the North Downs, but not found in metropolitan west Kent, or in northernmost Kent east of the Medway. This broadly remained the case when assessed by Francis Rose in the 1940s-60s. Whilst it was often abundant under beeches on chalk, it was also frequent, but not abundant, in coppice and scrub on chalk. Rarely, it had also been recorded on ragstone (Broadhoath Wood, Stone Street, 1950) or gault clay (Ryarsh Wood, 1942-43; Cadmans Wood, Brook, 1946). The breadth of its Kent occurrence was still shown by the 1971-80 survey of Philp (1982), when 84 tetrad records were made in the administrative county, spread across it in a band following the presence of chalk. Given that the survey of 1991-2005 (Philp, 2010) produced only 45 tetrad records, the question arises as to whether this is a product of the decline which, nationally, is reflected in the species' Vulnerable status, or whether this is an artifact of different recording methods or input. In general, orchid recording appears to be more responsive to networked or crowd-sourced survey, rather than solo efforts (as with Philp, 2010).

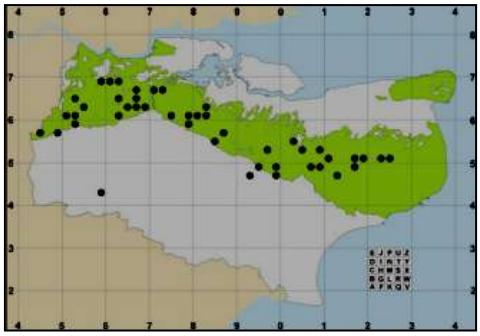
[4] ed. W.Derham (1718). *Philosophical letters between the late learned Mr. Ray and several of his ingenious correspondents, natives and foreigners* p96.

As this species is not uncommon in Kent, the distributional data maintained in this register will be at 1km square (monad) level. This will entail recording at a finer scale than the tetrads given in Philp (2010), from which the accompanying 1991-2005 distribution map is taken (with kind permission of the late Eric Philp and the Kent Field Club). The 2010-20 records replicate well the distribution pattern shown by those of 1991-2005, following the chalk across the county, but are considerably more extensive, including many sites not featuring in the earlier survey. They relate to 144 different monads and equate to 100 different tetrads. These data therefore do not support the decline which a comparison of the Philp (1982) and Philp (2010) surveys appears to indicate.



***Cephalanthera damasonium* (White Helleborine) 2010-20**

***Cephalanthera damasonium* (White Helleborine) 1991-2005**



Cephalanthera damsonium is a plant generally of shady woods and banks, especially beechwoods on chalk where there is little ground cover and the plant may be found growing on bare dry soil or in leaf litter. Spread may be by rhizomes and seed production is, in the dense shade, likely to be normally by self-pollination. It has also been seen in Kent under yew and hornbeam, both also providing densely shaded habitat, and in developing scrub on chalky slopes, where shading is lighter. Exceptionally, it has been seen on bark chippings in an amenity planting of a car park; there is definitely an ability to act as a colonist when appropriate habitat develops, presumably with mycorrhizal presence. Most reported colonies in Kent are of small numbers, or up to 100 spikes; but there are larger ones - at Fridhill Wood near Perrywood (TR0354 to TR0355) in 2010 the quantity reported was in tens of thousands. It has been seen in the company of various other orchids: *Dactylorhiza fuchsii* (Common Spotted-orchid), *Neottia nidus-avis* (Bird's-nest Orchid), *Ophrys apifera* (Bee Orchid), *Ophrys insectifera* (Fly Orchid), and *Orchis purpurea* (Lady Orchid).



Fridhill Wood.
Photo by Lliam Rooney,
2 June 2010



Bredhurst. Photo by
Stephen Lemon,
9 June 2012

Cerastium arvense L. Field Mouse-ear)

Draft account

vc 15 and 16

Rarity / scarcity status

Field Mouse-ear is widely distributed in dry grassland across the British Isles, although much less common in the west. In Great Britain as a whole it is not treated as at risk, its conservation status being regarded as of 'Least Concern'. However, a comparison of its area of occupancy in England over the periods 1930-1969 and 1987-1999 produced a calculated decline of 20% in the likelihood of recording the species. This just reaches the threshold for designation as **Near Threatened**, and so approaches qualification status for a level of risk of extinction in the wild. In Kent, Field Mouse-ear is neither rare nor scarce, although this is a reflection of its status in East Kent, as there is very little in West Kent. The level of decline reflected in a comparison between the county surveys of 1971-1980 and 1991-2005 is 63% which, if replicated in national terms, would have resulted in a much higher risk rating.



Sheldwich. Photo by Lliam Rooney, 26 May 2012

Account

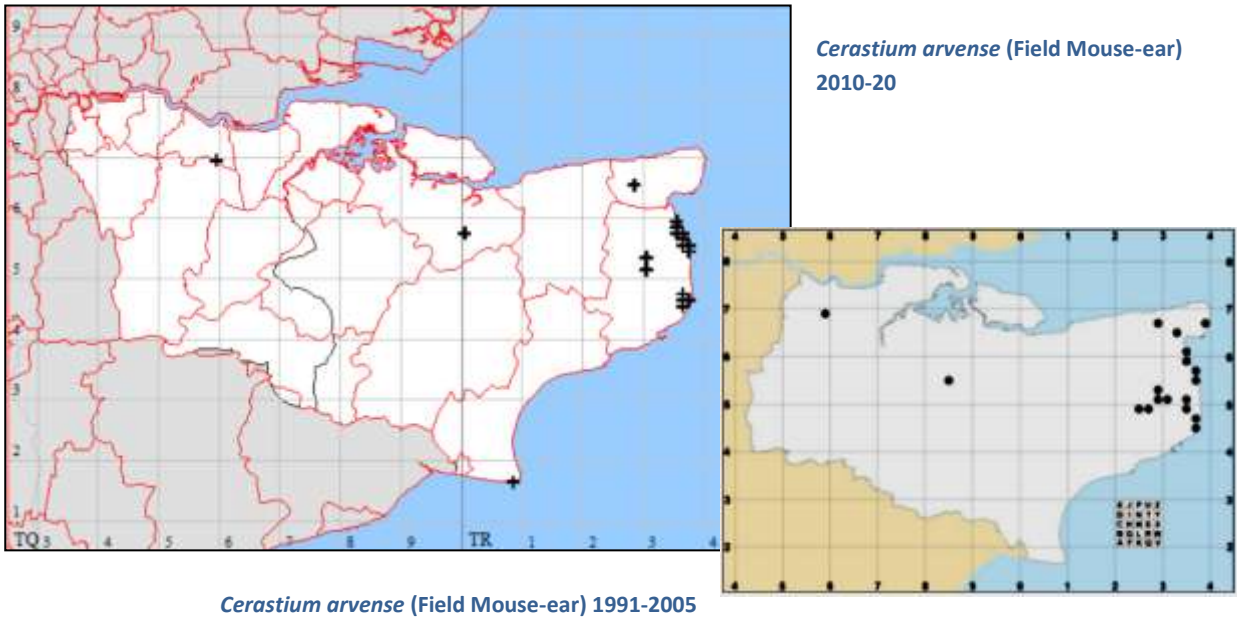
The first record of Field Mouse-ear in Kent was noted by Hanbury and Marshall (1899) as inscribed by James Newton c.1680 in the margins of a copy of a botanical publication, although there appears to be some confusion as regards the book's identity[5]. The annotation is recorded as 'Caryophyllus Holostius … in a close wherein is much Caput Gallinaceum [*Onobrychis sativa*, per Hanbury and Marshall = *Onobrychis viciifolia*], near a little house at y^{e} foot of a descent ab^{t} a mile or two from Dartford, a little on y^{e} Greenstreet, y^{e} way to Southfleet, Kent. This is not far from where it may be found today, north west of Longfield. However, apart from a sprinkling of records in north west Kent, and a rather surprising reference to the species as being not uncommon in cornfields in Thomas Forster's *Flora Tonbrigensis* (1816), the species appears to have been primarily an East Kent plant, both historically and now. Hanbury and Marshall (1899) refer to *Cerastium arvense* as being frequent, but local, on fields and banks, chiefly on the chalk. Such chalky areas included Chartham Downs, Thanet, the Dover area and Barham Downs (being found in profusion at this last locality by William Pamplin in 1824[6]). In contrast, it was recorded on sandy hills between Boughton and Dunkirk, and presumably sandy ground by the Hothfield Green workhouse. This duality of habitat was also acknowledged in Philp (1982), in which Field Mouse-ear was said to be frequent in the east of the county, rather scarce elsewhere, on roadside banks and rough grassland on both chalk and sandy soils. It was during the period 1971-80 recorded in 48 tetrads. The reduction to 18 tetrads in Philp (2010) for the period 1991-2005 is dramatic, but without obvious explanation. It is, however, possible that the species' reliance on well-drained soil, coupled with its predominantly eastern UK distribution, reflects some sensitivity to the amount of precipitation, and so Field Mouse-ear may be affected by increases in winter rainfall.

As this species is as yet not uncommon in Kent, the distributional data maintained in this register will be at 1km square (monad) level. This will entail recording at a finer scale than the tetrads given in Philp (2010), from

[5] The book in question is given in Hanbury and Marshall's list of source material as John Parkinson's *Theatrum Botanicum.* However, in the Historical Summary of the *Flora of Kent* (1899), Newton is stated to have made many notes of Kentish plants in a copy of the second edition of John Ray's *Synopsis Methodica Stirpium Britannicarum.*

[6] Given by H.C. Watson from a manuscript source in *The New Botanist's Guide* (1835) vol. 1, with location corrected in vol. 2.

which the accompanying 1991-2005 distribution map is taken (with kind permission of the late Eric Philp and the Kent Field Club). The 2010-20 records mostly fall within the distribution pattern shown by those of 1991-2005, but have not yet replicated all of the earlier locations and cover only 12 tetrads (although the markers given are for the equivalent 18 monad records), so it may well be that there is continuing decline. Our 2010-20 sightings include habitats such as golf courses, roadside banks, chalk grassland (often associated with coastal areas including cliff-top), dune grassland and a chalk pit.



***Cerastium arvense* (Field Mouse-ear) 2010-20**

***Cerastium arvense* (Field Mouse-ear) 1991-2005**

Cerastium arvense is a perennial with a scrambling habit, which might be taken as having some resemblance to *Stellaria holostea* (Greater Stitchwort), which occupies similar road-bank habitats, but has more divided petals than *Cerastium arvense* and is almost hairless rather than downy. Field Mouse-ear hybridizes with the garden escape *Cerastium tomentosum* (Snow-in-summer), and this cross has been recorded at Sandwich Bay (TR35T, by J.E. Lousley) and at Acol, where it has been present for several decades and was still in 2013 found (by L. Rooney) to be well established on the northern verge of the A28 Canterbury Road from TR 29002 67740 to TR 29016 67742. In addition, there are plants found in 2012 by Tim Inskipp near the old lighthouse at Dungeness, differing from nearby *Cerastium tomentosum*, and which also appear to be hybrids. Furthermore, Sue Buckingham investigated in 2017 two sites near Shepherdswell from which it appears that Philp (2010) gave *C. arvense*. In both cases the species could no longer be found, but had been supplanted by the hybrid. Plants had a mixture of types of indumentum from the parents: long crinkled white hairs, shorter straight hairs and a scattering of short glandular ones. The cross was also recorded at Sandwich (2018 and 2020) and Walmer (2020).



Sheldwich. Photo by Lliam Rooney, 26 May 2012

Chaenorhinum origanifolium (L.) Kostel. (Malling Toadflax)

Draft account

vc 15 and 16

Rarity / scarcity status

Chaenorhinum origanifolium does not enjoy any national conservation status, nor was it included in initial listings of plants for the Kent Rare Plant Register. This is because it is neither a native plant nor an ancient introduction. Guidelines for preparation of county registers, however, permit the inclusion of long-established non-native plants which have particular cultural, historical or ecological interest. On this basis, *Chaenorhinum origanifolium* qualifies for inclusion as a **Kent heritage plant**, as its probable first introduction to the British Isles was at West Malling; this location has supplied the only long-standing permanent population in the country; and its usual English name of Malling Toadflax reflects this close connection with Kent. It is probably rare nationally (given that some of its recent records will have been casual) and it is **rare** in Kent.



West Malling. Photo by Lorna Holland, 2011

Account

The Malling Toadflax is a native of south west Europe. The first record for Kent (and the British Isles) is generally given as 1880, from West Malling. Hanbury and Marshall (1899) noted it as having been collected from a wall at West Malling by F. Shrivell, whose specimen became included in the herbarium of the (then) Pharmaceutical Society of Great Britain. C.H. Fielding in 1893[7] referred to it as found growing luxuriantly on the walls of the old Abbey at Malling and identified by Professor Holmes of the Pharmaceutical Society. By 1943, according to Francis Rose, it was still frequent on several walls at West Malling and was reputed to have been introduced by the monks of Malling Abbey[8]. This last supposition can scarcely be accurate. Until the Dissolution (when the Abbey was secularised), and then from 1892, the Abbey's religious communities have been nuns rather than monks; and it is more likely that the plant was introduced at some time after the mid-eighteenth century when the property was rebuilt as a neo-gothic mansion - it was clearly present before religious use was resumed.

It is still (2012 – surveyed on different occasions by JA, LR and GK; and 2016 by Brian Woodhams) present on the top and street side of the ragstone Abbey walls in Swan Street (TQ682577) opposite Abbey Brewery House; as well as growing on brick walls at an Abbey entrance onto Lavenders Road (TQ 68349 57652); on a low brick wall outside Abbey Brewery Court; on the northern side of Swan Street on top of a ragstone wall nearly opposite the Lavenders Road junction; on the side of a ragstone wall of Went House at the junction of Swan Street and Frog Lane (TQ 68321 57732); and on two ragstone walls further down Frog Lane. On wall sides it may be susceptible to extensive re-pointing of mortar – it has apparently gone from walling on the

[7] Memories of Malling and its valley; with a flora and fauna of Kent.

[8] *BEC Report for 1945* (1947), 13:32.

west side of Frog Lane in consequence. The seed is capable of spreading to inaccessibly high wall-tops and has apparently even reached the parapet roof of Went House (the furthermost building in the habitat photograph below - not visible from ground level).



West Malling. Photo by Lliam Rooney, 13 May 2012

The only other Kent records appear to have been a sighting on an old wall at Littlebourne (TR25D) on 2 May 2002 (Eric Philp and Doug Grant); on the outside wall of Hall Place gardens, Bexley, near the entrance (recorded by Rodney Burton as established, 15 June 2014, TQ5074; and on garden walls at Arcadia Road, Istead Rise (noted by Rodney Burton on 18 August 2016, TQ6369). Also, it was reported (1 June 2018, by Diana Poulton) as well naturalised along about 20 feet of the listed brick wall constituting the southern boundary of Westbere churchyard, TR 1923 6106.

In its native Spain it may be found on calcareous rocks and on walls. These preferences are also reflected in its growth in the mortar of ragstone walls at West Malling.



Abbey walls, Swan Street, West Malling. Photo by Geoffrey Kitchener, 3 June 2012

Chamaemelum nobile (L.) All. (Chamomile)

Draft account.

vc 15 and 16

Rarity / scarcity status

Chamomile is locally frequent in southern England and south west Ireland. Historically it was more widespread in central Britain and East Anglia, but many losses have occurred; and, although populations remain stable in the core areas, the potential for further loss has led to it being regarded as a **Vulnerable** species both in Great Britain and in England. It is a UK Biodiversity Action Plan priority species, in order to address the threats posed by eutrophication, drainage and cessation of grazing on village greens and lowland acid grasslands. The plan envisages monitoring of all populations in vulnerable areas and includes ensuring strategies are implemented so as to remove threats of over- and under-grazing.

In Kent, it appears (other than as a casual) to have been reduced to three sites and is **rare**.



Southborough Common. Photo by Geoffrey Kitchener, 13 September 2012.



Benenden village green. Photo by Sue Buckingham, 15 August 2012

Account

The first mention of *Chamaemelum nobile* wild in Kent is in Edward Jacob's *Plantae Favershamienses* (1777), where he refers to the Sweet-scented Camomile as uncommon on Charing Heath. Hanbury and Marshall (1899) considered it rather rare, to be found in short turf, on village greens, heaths, etc. and Marshall (in the Victoria History of the County of Kent, 1908) referred to the species as abundant in the Tunbridge Wells neighbourhood, but scarce elsewhere. Francis Rose similarly noted it in the Tunbridge Wells area, but (1950s/60s) 'now very rare; formerly more frequent, but exterminated by enclosures, lack or grazing, and re-seeding of commons in several places'.

In that neighbourhood, Chamomile has been known from Rusthall, Tunbridge Wells and Southborough Commons. Philp (1982) cited it as still present in the latter two locations, but by the time of the survey

published as Philp (2010), it could only be located at Southborough Common (plus a casual East Kent occurrence). This then appeared to be the sole surviving site from Hanbury and Marshall's time: a public open space of unimproved acid grassland where the turf is kept short by mowing.

However, it seems that Chamomile was not lost from the other commons after all, at least so far as concerns Tunbridge Wells Common. Virtually no mowing is undertaken at Rusthall, and limited mowing is carried out at Tunbridge Wells Common. Both have much more tree cover than was the case up to the nineteenth century, when they were open grazed areas with suitable terrain for Chamomile, the first major tree planting at Tunbridge Wells Common having been commenced in 1867, with natural colonisation by birch and other species following on from the decline in grazing. The most consistently mown areas at Tunbridge Wells Common are those used for sporting activities, and it is at one of these locations that Chamomile was re-found in 2012, with many patches over c. 40 x 15 metres of level *Agrostis capillaris* (Common Bent) grassland which was then laid out as a children's running track.



Tunbridge Wells Common. Photo by Geoffrey Kitchener, 4 October 2012

Chamaemelum nobile is still also present at Benenden, discovered in 2012, where the village green turf is maintained by mowing.

Chamomile is a plant which cannot tolerate shading and competition from taller plants, and so is reliant upon a regime which controls this, generally by grazing or mowing. It favours seasonally wet ground, which may be provided by impeded winter drainage through summer baking of sandy soil. It is a long-lived perennial which can spread out tightly over the ground in response to close grazing or mowing.

It is a species which may feature in wildflower mixes, which opens potential for random occurrences, e.g. the KWT has apparently been party to its use in 2015 in a seed mix intended to convert arable to a floodplain meadow at Somerden Farm, Chiddingstone.

Site	Grid reference	Site status	Last record date	Recorder	Comments
Tunbridge Wells Common	TQ53U		(1) 4 October 2012 (2) After 1970, before 1981	(1) GK (2) Philp, 1982	(1) TQ 5803 3936; many patches in area of c.40 x 15metres of mown *Agrostis capillaris* grassland, of level, open aspect and used for sporting activities. (2) c. TQ581390. Not found at this grid reference in September 2012. There is an 1882 specimen (H. Lamb) from the common in **MNE**.
Southborough Common	TQ5742		(1) 10 November 2019 (2) 3 June 2017 (3) 14 September 2012 (4) After 1990, before 2006	(1) & (2) SL (3) GK (4) Philp, 2010	(1) Southborough Common, south of path and edge of the cricket pitch, opposite church, TQ 5760 4280. Showing well in leaf and some fairly tall flowers benefiting from the lack of mowing. (2) Lawn on opposite side of road to St. Peter's Church and south of cricket pitch, TQ 5758 4278. (3) TQ 57600 42803, extensive patches in area of 20 x 6 metres of mown turf on south-facing slope below brick path running across common from church. Also occasional plants on the bricks.

					(4) TQ54R. Recorded here in 1946 by FR.
Chatham	TQ7667		1971	Philp, 1982	Big patches scattered over an area of 20 x 30m on the village green.
Benenden	TQ8032		15 August 2012	SB	Large patches on village green at TQ8088 3281,covering some 20 x 30m, south side of cricket pitch, discovered by LR on 1 February 2012.
Barham	TR2150		1993	EGP	Casual plants on a roadside verge.
Ramsgate	TR3965		1971	Philp, 1982	



Benenden village green. Photo by Sue Buckingham, 15 August 2012



Brick path at Southborough Common. Photo by Geoffrey Kitchener, 13 September 2012

Chenopodiastrum murale (L.) S Fuentes, Uotila & Borsch (*Chenopodium murale* L.) (Nettle-leaved Goosefoot)

Draft account.

vc 15 and 16

Rarity / scarcity status

Nettle-leaved Goosefoot has been widespread as an archaeophyte, or ancient introduction, in England, less so in Wales and very local in Scotland and Ireland. It has, however, markedly declined at least since the 1960s, and is now treated as **Vulnerable** in Great Britain as a whole, although there are data interpretation issues because of the difficulty in distinguishing casual occurrences from permanent populations and in England it is regarded as **Endangered**. In Kent it has been little seen in recent times; based on the account in Philp (2010) it would be treated as rare, but is better regarded as **scarce**.



Lydd. Photo by Owen Leyshon, 8 September 2013

Account

The first published record for Kent is by Edward Jacob in his *Plantae Favershamienses* (1777), where he refers to it as "*In Gardens and on Rubbish – not uncommon*". Hanbury and Marshall (1899) described it as to be found on "waste or cultivated ground: local, though not uncommon on the coast". Philp (1982) referred to it as rather scarce, in 12 tetrads scattered over the administrative county, and generally as an introduction. Habitats included waste places such as rubbish tips, and arable fields, particularly where wool shoddy had been used. The species is given for West Kent by J.E. Lousley in his *Census List of wool aliens found in Britain, 1946-1960*[9], based on a list supplied by David McClintock. By the time of Philp (2010), however, wool shoddy had ceased to be used as an agricultural fertilizer and so *Chenopodiastrum murale* was no longer being replenished as an introduction via this source. The only records of this species then noted were on a rubbish tip at Dartford and disturbed ground at Dungeness. It has been seen in several metropolitan West Kent locations, which were outside the scope of Philp, 1982 and 2010.



Chenopodiastrum murale is an annual of disturbed or cultivated ground, particularly where nutrient-rich. Its occurrences are generally casual and if one wished to conserve the species, the measures for doing so are not obvious, other than annually repeated disturbance. The plant has fairly distinctive leaves (indeed, somewhat nettle-shaped), very small teeth around the tepals, and seeds which are keeled around the margin.

Sandwich. Photo by Sue Buckingham, 21 September 2013, showing keeled seed

[9] *Proceedings of the Botanical Society of the British Isles* (1961) 4:221-247.

Site	Grid reference	Site status	Last record date	Recorder	Comments
Pratts Bottom (metropolitan vc16)	TQ4762		24 August 2003	GK	TQ 471 627, at roundabout road-verge, on soil imported with road works. Did not persist.
Danson Park (metropolitan vc16)	TQ4775	Local authority managed park	6 June 2011	MG & MCS	Flower beds and grass path.
Barnehurst (metropolitan vc16)	TQ5073		12 September 2002	MG	TQ 504 763, edge of mown verge of Mereworth Road; conf. EGP.
Barnes Cray (metropolitan vc16)	TQ5275		22 September 2003	GK	TQ 523 755, planted beds in front of commercial development, by A206.
Dartford	TQ5475		20 August 2002	MG	TQ 543 758, Joyce Green Lane; conf. EGP (by whom seen, with PHe, on 1 November 2002 and recorded as at TQ57M).
Dungeness	TR01U		After 1990, before 2006	Philp, 2010	Disturbed ground near Boulderwall Farm.
Romney Warren	TR0726	Local nature reserve	(1) 2019 (2) 16 October 2018	(1) & (2) SDA	(1) & (2) TR077261, near visitor centre.
Lydd	TR0419		August – September 2013	TI	c.100 plants on large manure heap in field just outside Lydd on Dengemarsh Rd. Also seen 8 Sept by OL.
Sandwich	TR3657		21 September 2013	SB	5 flowering plants and 17 seedlings in cow pasture on old dune grassland at TR 36158 57288, near Bird Observatory.



Sandwich. Photo by Sue Buckingham, 21 September 2013

Chenopodium vulvaria L. (Stinking Goosefoot)

Draft account

vc 15 and 16

Rarity / scarcity status

The decline of the Stinking Goosefoot in Britain was marked before 1930 and has continued now to the point where, from having been fairly widespread in south and central England, it is regarded, both in England and in Great Britain as a whole, as being **Endangered**. Factors such as changes in agricultural practice and pressure on marginal habitats may be entailed. Kent is one of the few counties where it may be found, and it is **scarce**.

Account

In Kent, *Chenopodium vulvaria* was first recorded in Edward Jacob's *Plantae Favershamienses* (1777) as the Stinking Orache, to be found flowering in August "*Under Walls about the Town – uncommon".* Hanbury and Marshall (1899) gave a fairly wide range of records, generally coastal, and assessed it as local on waste ground near the sea. As Philp (1982) provides only one tetrad record, in Romney Marsh, for the survey period 1971-1980, this gives an impression of catastrophic decline in the county which may well be misleading. In the subsequent survey of 1991-2005, seven tetrad records were made, all in north Kent, with a focus on the Isle of Grain and Sheppey; so the picture appears now to be one of scarcity rather than disappearance.

Neither survey has included occurrences of long standing at Princes Golf Links, Sandwich, where it has, however, been seen from 1946 (by Francis Rose on a sandy track north of the old club house) at least through to 1986 (by Francis Rose and Rosemary FitzGerald, when it occurred on the sandy edges of the tarmac road which replaced the track), presumably a survival of Marshall's assessment (1899) of its presence as plentiful between Sandwich and Pegwell Bay, and of its being recorded near Sandwich in 1805; so there is some evidence of earlier persistence.



Cliffe Marshes. Photo by Lliam Rooney, 28 August 2012, showing glands on the leaves, from which trimethylamine diffuses, giving rise to the plant's distinctive odour.

The Stinking Goosefoot is currently treated as an archaeophyte, but was formerly assessed as a native, and often appears like one in the county, particularly by the coast, sometimes inhabiting remote areas and without obvious means of introduction. It is an annual, normally germinating in spring, but sometimes later; and is

perhaps most readily recorded late in the year. Whilst fairly distinctive as a greyish prostate plant with rhombic leaves, it is not at all conspicuous, other than as regards its smell, which resembles rotting fish.

Allhallows, at cattle feeding station. Photo by Geoffrey Kitchener, 2 October 2012



Its recent Kent occurrences are almost all in bare disturbed coastal habitats, often by the side of tracks, where there may be light trampling but not severe compaction, such as is more likely to be tolerated by *Chenopodium glaucum* (Oak-leaved Goosefoot), which may also accompany it. A sandy, gravelly or cindery substrate appears to suit the species, penetrated by a strong taproot; but it is highly tolerant of nitrogen enrichment. The plant has been found on artificial banks and thrives in the presence of rabbit grazing; it may be found in sites covered with rabbit droppings. Associated plant species in rabbit-frequented areas were generally ruderals, and in the immediate vicinity of burrows were plants which rabbits avoid, such as nitrophilous *Urtica dioica* (Common Nettle) and toxic *Solanum nigrum* (Black Nightshade). *Chenopodium vulvaria* was seen severely nibbled back by burrows in late season; but evidently there must be some trade-off which enables the species to continue to flourish, in spite of being palatable. Another highly nitrogenous site is that on the grazing marshes at Allhallows, where Stinking Goosefoot has been recorded on trampled, somewhat gravelly ground covered with manure, where there is a cattle feeding station. A recent (2015) inland site at Darland Banks, Gillingham also reflected the same factors of disturbance and high nitrogenous soil content.



Queenborough, rabbit-nibbled plants by burrow. Photo by Geoffrey Kitchener, 16 October 2012

Site	Grid reference	Site status	Last record date	Recorder	Comments
Bexley (metropolitan vc16)	TQ47		From 1987 to after 1999	DN	A botanist's introduction to an allotment, where it persisted, at least for a while.
Dartford	TQ5475		(1) After 1990, before 2006 (2) 2002	(1) EGP (Philp, 2010) (2) MG	(1) On disturbed western side of Joyce Green Lane. [Not found, October 2012.] (2) TQ 5425 7595 (grid reference is eastern side of Joyce Green Lane).
Cliffe Marshes	TQ7176	RSPB reserve	(1) 28 August 2012 (2) 7 July 2011	(1) EGP & DG (2) GK & LR	(1) TQ 71600 76700. Half a square metre of somewhat bare ground. Has been persistent here for many

					years, at least since 1993 (228 plants were recorded by the KFC in 1995). (2) Two small patches, both covered with rabbit droppings, on margin of cindery vehicular track. TQ 71535 76848 (east side) c.30 x 30cm and TQ71530 76851 (west side) c.50 x 75cm. Associated species included *Picris hieracioides*, *Polygonum aviculare* agg., *Diplotaxis tenuifolia*, *Plantago coronopus*. On the compacted track was *Chenopodium glaucum*.
Darland Banks, Gillingham	TQ7866	KWT managed reserve	17 & 18 October 2015	SP & DG	TQ 78078 66157, four plants, growing on a hill slope heavily disturbed by scrub clearance, weedy and with indications of nitrogen enrichment. Associated species included *Verbena officinalis, Solanum nigrum, Helminthotheca echiodes, Cardamine hirsuta, Cirsium arvense* and *Potentilla reptans*. Not necessarily associated was the appearance of *Solanum laciniatum* resulting from the same clearance.
Allhallows	TQ8478 / 8578		(1) 2 October 2012 (2) After 1990, before 2006	(1) GK (2) EGP (Philp, 2010)	(1) About 20 plants, some relatively large, scattered on heavily manured ground used as a feeding station for grazing marsh cattle, from TQ 8499 4842 to TQ 8500 4840. *Chenopodium glaucum* was also present. Both also seen on 12 August 2013, GK.
Isle of Grain	TQ8677		(1) 28 July 2017 (2) 18 September 2012 (2) 22 June 1995	(1) BBe (2) GK (2) EGP (Philp, 2010)	(1) TQ 86920 77250, over 20 plants seen around Peat Rd farm buildings. (2) TQ 86921 77221, on gravelly flat ground in front of old cottages/farm buildings by Peat Way, scuffed and amidst rabbit droppings, scattered over c. 1 sq metre. (2) c. TQ 867 774, on the Grain side of Yantlet Creek.
Isle of Grain	TQ8678		After 1990, before 2006	EGP (Philp, 2010)	By some old coastal army workings.
Isle of Grain	TQ8777		3 September 2013	GK	About 20 large plants on disturbed ground relating to services works at junction of Peat Way and West Lane, TQ 87076 77038.
Isle of Grain	TQ8778	MOD land	28 July 2017	BBe	TQ 87631 78155, five or more plants, on patch of disturbed ground on demolition site with 30+ *Chenopodium glaucum*.
Queenborough	TQ9170		5 July 2020	DC	TQ 916 701. Three flowering plants in gateway entrance next to railway.
Queenborough	TQ9172		(1) 16 October 2012 (2) 2 August 1991 (3) (2) June 1991	(1) GK (2) EGP (3) JP & GB	(1) Numerous plants, bitten down by rabbits and difficult to count, at least 300 on bare disturbed ground of disused banked railway formation (constructed c.1900, closed 1950) around rabbit burrows for 300m from TQ 91540 72568 to TQ 91764 72774. Terrain is made ground with soil, shelly shingle, cinders and chalk lumps.

					Main associate *Solanum nigrum*, also present *Mercurialis annua*, *Urtica urens*, *Urtica dioica*, *Carduus tenuiflorus*. (2) TQ915726; bank of disused railway, heavily rabbit-grazed. Specimen in **MNE**. (3) Discovered at TQ 916 726, 100+ plants. Written up by JP in *Bulletin of The Kent Field Club* (1992) 37:38.
Elmley	TQ9267		22 September 2017	DC	TQ 92613 67859, a single plant on gravelly compacted ground, rabbit-frequented, at remains of 19th C Elmley cement works and related dock.
Eastchurch Marshes	TQ9869		29 September 2005	EGP & DG	TQ9808 6984: trackside near gate to Great Bells Farm, rabbit-disturbed. [Not found, October 2012 or August 2019, GK. Rabbit disturbance still present but may be reduced.]
Princes Golf Links, Sandwich	TR35P, 36K		4 October 1986	EGP	Specimens in **MNE** from edge of track. Other specimens (without OS grid reference) in **MNE** go back to 1946 (FR). Also recorded for August 1986 (over 150 plants) by FR & RF for TR 356 593 and TR 355 596; and RF for TR 354 600. [Not found, October 2012, September 2013.]



Cliffe Marshes. Photo by Geoffrey Kitchener, 28 August 2012