

Kent Botany



2014

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Compiled by Geoffrey Kitchener
(February 2015, web version 2)

Front cover: *Adonis annua* (Pheasant's-eye) at Kingston, East Kent, 8 July 2014. Photo © Liam Rooney

Introduction

Kent Botany 2014 is the fifth in a series of annual reports of botanical developments in Kent each year. It is issued primarily as a web version, maintained on the Kent page of the Botanical Society of Britain and Ireland (BSBI) website, <http://www.bsbi.org.uk/> and this should be regarded as the definitive version. A substantially similar hard copy version is also issued by the Kent Field Club, as part of its Bulletin (2015).

Botany in 2014

2014 was a warm year, reflected in mild winters, both the outgoing 2013-14 winter and the incoming 2014-15 winter. Whatever the impact on individual plants, the effective season for botanising was expanded, a factor contributing to the number of 2014 records. The wet 2013-14 winter resulted in high ground levels of water, perhaps beneficial for sedges, but also giving rise to flooding which helped species such as *Rumex maritimus* (Golden Dock) which rely upon changing water levels.

Highlights

Eighteen taxa new to East Kent (vice county 15) were recorded; and two new to West Kent (vice county 16). New plants included *Tetragonia tetragonioides* (New Zealand Spinach), apparently washed up twice on Kent shores, and *Epilobium brachycarpum* (Panicked Willowherb), a North American species with a recent track record of spread on the Continent. Amongst the welcome reappearances of plants not generally known to be still present in the county were *Adonis annua* (Pheasant's-eye) and *Potamogeton obtusifolius* (Blunt-leaved Pondweed).

Recording in Kent

In 2014, recording policy was modified so that, while continuing to seek updates for the status of rare plant register species, an increasing emphasis was placed on general recording. This was in order to work towards comprehensive county coverage in the current BSBI date class, from 2010 to 2019, which enables comparison to be made of recorded distributions over ten-year periods; and also provides data for the next national atlas. In consequence, many more records were made in 2014 than in preceding years. The year's total (covering 2014 data input by mid-January 2015) was 55,400, but more records than this were entered up, because of the availability of extra data from earlier years. The re-stated totals for the years 2010-13 are: 20,700 (2010); 28,000 (2011); 27,500 (2012); and 35,400 (2013). Accordingly, 2014 records were almost twice as many as the average made in the preceding four years and the overall total of records for the period 2010-2014 stands at 167,900.

Membership of the Kent Botanical Recording Group (KBRG) increased from 90 to 100 during the year. The extent of membership participation varied, but there were eleven KBRG field meetings in the county available for attendance during 2014, including a cross-border joint meeting with Surrey Botanical Society (a similar meeting with Sussex Botanical Recording Society was cancelled due to weather conditions). Most meetings were for

general recording and some gave access, with permission, onto sites with limited previous botanical records, such as Dungeness Nuclear Power Station; others were themed, e.g. grasses and glassworts sessions. Reports were given in newsletter no.7, published by email and on the KBRG webpage. Other organisations' meetings also contributed data, e.g. the Kent Field Club, whose members also attended some KBRG meetings under joint arrangements, the Wild Flower Society and the London Natural History Society.

There were some individual focuses on aspects of county botany. Fred Rumsey carried out a survey of Lydd Airport lands, with some exceptional finds. These together with recording by Tim Inskipp over the Dungeness shingle areas and Owen Leyshon's start on monad recording across TR02, a substantial area of Romney Marsh, have provided much data for the extreme south east of the county. Alex Lockton has been working on the flora of Stodmarsh NNR, and the second year results and interim report were published via the KBRG webpage, at http://bsbi.org.uk/Flora_of_Stodmarsh_2014.pdf. Alfred Gay produced a study of the current county status of *Ophrys fuciflora* (Late Spider-orchid), which *de facto* is a study of its national status. Stephen Lemon has made further rare sedge discoveries and has shown that there is greater continuity in the flora of the Eden catchment from Victorian times than has appeared in subsequent county assessments. David McCosh has reviewed much of the *Hieracium* (Hawkweed) collection at Maidstone Museum, which is of national significance, and so as to complete the re-ordering which was unfinished at Eric Philp's death.

Records continue to be shared with the BSBI and Kent and Medway Biological Records Centre.

Kent rare plant register (RPR)

Parts A to F inclusive of the RPR were updated and reissued on-line in February 2014. A preliminary draft of Part G was issued to KBRG members for consultation in March and this, suitably revised, was also published on-line, later that year.

In September, the conservation status of vascular plants in England generally was assessed (Stroh et al., 2014) with some surprising results. Whilst one might have expected assessments for England to vary in some cases from those published in the Red List for Great Britain (Cheffings & Farrell, 2005), what was unexpected was the treatment of many relatively common species as 'Near Threatened'. The categories of risk applying to native plants (and ancient introductions) are based on International Union for Conservation of Nature standards and involve the designation of taxa as extinct, critically endangered, endangered, vulnerable, near threatened or of no particular concern as regards being at risk ('least concern'). 'Near Threatened' is a designation for taxa which do not currently fall in a higher risk category (vulnerable or endangered, etc.), but which are close to qualifying or are likely to qualify in the near future. The assessment of species such as *Campanula rotundifolia* (Harebell), *Cruciata laevipes* (Crosswort) and *Knautia arvensis* (Field Scabious) as Near Threatened in England was not based on current scarcity, but on their rate of decline. A consequence for Kent is that, for the RPR to continue including taxa with a significant risk rating, 45 further species fell to be added to the RPR. In the course of examining the position, it was found that two more species had earlier been inadvertently omitted and needed to be added as well: *Glebionis segetum* (Corn Marigold) and *Cuscuta epithymum* (Dodder). By the end of 2014, RPR accounts had been prepared for all the additional taxa in Parts A to G inclusive, that is, 20 species, and these were due to go on-line in February 2015.

Kent Botany 2013 reported receipt of 842 RPR records for that year. For 2014, the total is 1,486 (2.7% of the overall records total). The increase is, however, attributable to the extra species included in the RPR as a result of their conservation status changes (701 records) and to the other species added (18 records). Some of those extra species are by no means scarce, yet, so that it is unsurprising that 96 records were received for *Fragaria vesca* (Wild Strawberry), 65 for *Oxalis acetosella* (Wood-sorrel) and 54 for *Veronica officinalis* (Heath Speedwell).

The 2014 RPR sightings included:

- *Adonis annua* (Pheasant's-eye), as mentioned above;
- *Carex canescens* (White Sedge), rediscovered at its classic Willesborough Lees locality;
- *Carex vesicaria* (Bladder-sedge), with ten 2014 records - Philp (2010) only giving four tetrads;
- *Crassula tillaea* (Mossy Stonecrop), now found near Old Romney as well as Dungeness;
- *Dryopteris aemula* (Hay-scented Buckler-fem), with very detailed population and habitat data now available;
- *Himantoglossum hircinum* (Lizard Orchid) at another new roadside location, by the A249, which coupled with the explosion of plants at Boxley may indicate that the species is entering an expansionary phase;

- *Potamogeton obtusifolius* (Blunt-leaved Pondweed) at Shadoxhurst, the first find in Kent since 1980.

Plant records: selection criteria and recorders

Kent Botany 2014 covers Kent plant records made or reported in that year. 'Kent' for these purposes comprises botanical vice counties 15 (East Kent) and 16 (West Kent), and is a larger area than the administrative county of Kent with Medway Council unitary authority. The criteria for record selection are flexible, but they focus on plants which are unusual in Kent, or where the plant's location, habitat or population characteristics are unusual. Preference is given to new discoveries, particularly those which do not correspond with a tetrad recorded in Philp (2010). Taxa which are new to vice county 15 or 16 are given in **bold**. Records of known populations of rare plant register species will usually be carried through for publication in the draft rare plant register, and not necessarily in these records.

Nomenclature follows Stace (2011).

Recorders and other persons mentioned in reports

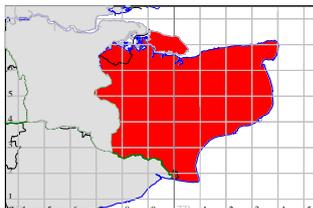
ABa Alan Bashford	DM Daphne Mills	JBr Jon Bramley	PG Paul Green
ACL Alan Leslie	DMC David McCosh	JM Joumana Mobarak	PS Philip Sansum
AG Alfred Gay	DS David Steere	JP Joyce Pitt	QJG Dr Quentin Groom
AL Alex Lockton	DT Dan Tuson	JPu John Puckett	RM Richard Moyse
AW Tony Witts	EGP Eric Philp	JVC Judy Clark	RMa Roger Maskew
BBe Ben Benatt	FB Fred Booth	KC Ken Chapman	RMB Rodney Burton
BWo Brian Woodhams	FJR Fred Rumsey	LR Liam Rooney	SB Sue Buckingham
B&MG B. & M. Grant	FR Francis Rose	L&DH Lorna & Derek Holland	SC Steve Coates
CB Caroline Bateman	GH Gill Hollamby	MB Mervyn Brown	SK Sarah Kitchener
CC Chris Cook	GJ Dr Geoff Joyce	MC Professor Mick Crawley	SL Stephen Lemon
CS Cath Shellswell	GK Geoffrey Kitchener	ML Mel Lloyd	SP Sue Poyser
CW Dr Cyril West	HS Heather Silk	MP Mike Phillips	TC Tom Cope
DG Doug Grant	JA Jan Armishaw	OL Owen Leyshon	TI Tim Inskipp
DJ David Johnson	JAR Jacqueline Rose	PB Peter Bassett	

Thanks are due to all these who have contributed; and to Charmian Clay for comments on the report presentation.

Other abbreviations or notation

BSBI = Botanical Society of Britain and Ireland (formerly Botanical Society of the British Isles)	MOD = Ministry of Defence
conf. = confirmed by	NNR = National Nature Reserve
det. = determined by	pers. comm. = personal communication
KBRG = Kent Botanical Recording Group	RHS = The Royal Horticultural Society
KFC = Kent Field Club	RSPB = The Royal Society for the Protection of Birds
KWT = Kent Wildlife Trust	Plant records which are marked ^R represent plants on the current draft Kent rare plant register list, with the additional species mentioned above.
LNHS = London Natural History Society	

Plant records for East Kent (vice county 15)



Adonis annua (Pheasant's-eye) ^R is back as a current Kent species, with seven plants recorded by SB near Kingston (TR1850) on 1 July 2014 within c. 5 metres of a wide arable margin alongside a public footpath on a loamy soil over chalk. The adjoining weed flora included *Papaver rhoeas* (Common Poppy), *Viola arvensis* (Field Pansy) and *Petroselinum segetum* (Corn Parsley). The farmer operates a High Level Stewardship scheme with Natural England to encourage arable plants. *Adonis* has been recorded here in the past and Natural England was aware of the site. Because the margin had become smothered by *Vulpia myuros* (Rat's-tail Fescue) it was agreed to treat it with herbicide during the previous winter, which paid off. *Adonis* is said to be mainly autumn germinating; however these plants obviously germinated successfully in the spring and were able to develop, with the resultant low level of competition.

Adonis annua, 8 July 2014. Photo © Liam Rooney.



Agrostis vinealis (Brown Bent) ^R does not appear to have been recorded at Dungeness before, although the terrain would seem suitable. TI recorded it on 29 June 2013, on the east side of the north Long Pit, TR0818, growing as densely tufted, erect and rhizomatous on a band of fairly dry grassland raised above a seasonally wet area.



Allium ampeloprasum. 9 August and 14 September 2014. Photos © Owen Leyshon.

Allium ampeloprasum var *ampeloprasum* (Wild Leek).

A single plant was found by OL in an alleyway, between residential houses connecting two areas of the Dungeness NNR, off Coast Drive, TR 0856 2028 (det. September 2014 by PG, BSBI *Allium* referee), where he had seen it from 2012 onwards, but not hitherto at flowering time. It flowered in August 2014, reaching a height of just over 1 metre and there were numerous bulblets sprouting in December 2014 around the plant. As a native plant, the species grows primarily in south west England, Ireland and the Channel Islands, with only a scattering elsewhere; the variety (which lacks bulbils) is known from the south west and from Wales. This was a puzzling find, not just



as regards its appearance in Kent, but also in that the flowers were white, rather than pink or pale purple, which is usual. **Both the species and variety are new to East Kent, vice county 15.**

Allium subhirsutum (Hairy Garlic) is a somewhat scruffy *Allium* with hairy leaf margins, two plants of which were seen by OL at the verge of the A259 by a pedestrian crossing at Old Romney, TR0325, on 9 May 2014.

***Amaranthus powellii* (Powell's Amaranth).** An American pigweed resembling (and often confused with) the relatively common *Amaranthus hybridus* (Green Amaranth), but possessing a stiffer habit and longer bracts, this species was found by SB (det. QJG) off Hassell Street north of Hastingleigh on 24 September 2014. There were three plants close to a road, at TR 10032 46401, in chestnut coppice by a heap of wood shavings and other decaying material. The area was used for pheasant shooting; game feed may provide an explanation of its presence, although other UK sightings appear to be as an arable weed or in other agricultural or urban situations. There are few records in the British Isles, and **this is a first record for East Kent, vice county 15.**

Anacamptis morio (Green-winged Orchid) ^R is now treated as 'Vulnerable' to the risk of extinction in the wild in England, so it is all the more disappointing that 116 or so flowering plants at Queendown Warren were dug up and stolen (reported in Wild Kent magazine, Winter 2014/15). This was, however, in the field to which the species had been introduced by spreading hay from Marden Meadow. A single flowering plant was seen by SB on 1 May 2014 at TQ 8909 3823, some 500 metres south east of the known colony. She also recorded other locations not given in Philp (2010): a small hay meadow at TQ 85408 46826 near Parson's Wood, south of Ulcombe where there was one plant with three flowering spikes on 29 April 2014; and a meadow at Middle Quarter, north of High Halden, where there were three widely scattered plants (TQ 890/1 382) on 7 May 2014.



***Anagallis arvensis* colour forms, 17 May 2014.**
Photo © Steve Coates and Mel Lloyd.

Anagallis arvensis* subsp. *arvensis* f. *pallida is one of the colour forms of Scarlet Pimpernel, probably of no great taxonomic significance, but they are supposed to come true from seed. There were three finds in 2014, the first being by

B&MG on 16 May and investigated next day by SC and ML, when they found at least 16 plants growing along a new fence line bordering fallow arable recently acquired by the National Trust near South Foreland Lighthouse, TR 357 430. The form was also found by two KBRG meetings, the first on 27 June at Dibgate Quarry, Cheriton, TR 1797 3693 where there was a single plant on quarry spoil; the second being on 9 July at Bramling, TR 2253 5601, where there was a single plant in a weedy arable field corner. Intraspecific taxa are not always fully recorded, but no other formal record has been traced for the county, and the May find falls to be treated as a **first record for vice county 15, East Kent.**



Anthemis austriaca (Austrian Chamomile). One plant of this Corn Chamomile look-alike was recorded by GK and SK on 18 January 2014 growing on sandy/shelly made ground off Doust Way, Rochester, TQ 7496 6810. A further plant was seen by SB at Sandwich Bay, TR 3525 5768, on 24 June 2014, on a roadside heap of earth and concrete; the addition of *Agrostemma githago* (Corncockle) and *Glebionis segetum* (Corn Marigold) indicates a wildflower seed mix origin.

***Apera spica-venti*, 30 September 2014.** Photo © Liam Rooney.

Apera spica-venti (Loose Silky-bent) was discovered by LR on 20 September 2014 at Boughton Street, TR 0561 5950, two plants

behind a polytunnel on land recently cleared for an allotment and previously covered with nettles. This appears to be the only modern record for this grass in East Kent, Thomas Johnson having found it in 1632 east of Canterbury (it would have been more satisfying if he had encountered it two days later when, travelling west of Canterbury, he must have passed through Boughton Street, but he did not re-list the species already noted). The species is currently treated as an archaeophyte and so would be a candidate for the rare plant register if more than a casual.

Atriplex laciniata (Frosted Orache). At least two plants were present on the tide-line of Lydd MOD Ranges, TR 00277 17831, recorded by OL on 12 July 2014. The site is within East Sussex administrative county, but also East Kent (vc15) for botanical recording and is a new hectad record. Barring some plants at Greatstone (also recorded by OL, in 2012), there are no other recent vc15 records for the Dungeness/Romney Marsh coast.

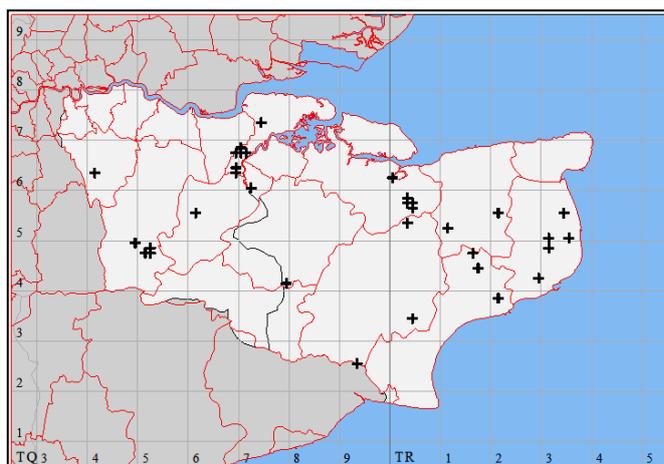
Barbarea verna (American Winter-cress). This was recorded by GK growing in abundance with weed status at the edge of a market garden field south west of Sutton Valence, TQ 808 489, on 5 June 2014.

Berberis darwinii (Darwin's Barberry). A small shrub, presumably bird-sown, was noted by GK and SK on 5 October 2014 as growing on the top of the high brick wall securing East Sutton prison, TQ8249. The thorns and prickly foliage would be no deterrent to escapees, as this is an open prison.

Berberis julianae (Chinese Barberry). One of the larger-leaved *Berberis* species, a couple of small plants were seen by GK and SK on 1 March 2014, seeded into the boundary fence line of Central Park, Murston, TQ 920 646 from planted shrubs on the opposite side of Church Road. **This is a first record for vice county 15, East Kent.**

Bergenia x schmidtii (*B. crassifolia x ciliata*) mentioned in Kent Botany 2013 as found at Fowlmead Country Park should have been credited as a **first vice county 15, East Kent, record**. This acknowledgement was prompted by a second East Kent report, by LR as regards the sighting on 24 July 2014 of six plants growing alongside the A28 opposite Shalmsford Road, TR 0879 5467, against a residential frontage.

Bromopsis benekenii (Lesser Hairy-brome) ^R. This taxon, perhaps better called *Bromus ramosus* subsp. *benekenii*, was formerly on the county 'probably extinct' list as unseen since 1986 (then in West Kent), but has now been found in both East and West Kent. A fuller account is given in the following West Kent report and in a revision of the county rare plant register, but the **first formal record for East Kent, vice county 15**, is taken as made by MB on 6 July 2014 at a woodland margin on chalk, under the shade of beech trees, near a public bridleway on a spur above a valley system near Bredhurst, TQ 8057 6192. Lesser Hairy-brome has been suspected by MB for some time as being present in both vice counties, but there is now no doubt about the position.



Bromus secalinus (Rye Brome) ^R. Records continue to be made, widely scattered over Kent, and a much more extensive pattern of distribution is appearing than was shown in Philp (1982 and 2010). There were 2014 sightings in vc15 near Staplehurst, Bilsington, Ripple, Garlinge Green, Dover (all SB), Iden Lock (GK and SK); Folkestone Downs (AG); Shottenden (LR); and Bramling Bottom (KBRG meeting). During the period 2010-14 more Kent records were made than are given for the county in the BSBI database in the entire history of recording up till then.

***Bromus secalinus* distribution 2010-14.**

Bupleurum tenuissimum (Slender Hare's-ear) ^R was found by TI in August 2014 virtually on the administrative county border (but well within vc15), with about 300 plants along the east side of Jury's Gap Road between Lydd and Camber, from TR 01350 18994 to TR 01362 19016. This is an atypical habitat, the species in Kent usually being found between sea walls and brackish dykes, although it was once found in the centre reservation of the

A2, so highway de-icing salt may supply a proxy for the salinity of its usual surroundings. An extraordinary location for this species, however, was furnished by AG's record on 22 September 2014 of at least ten plants at TR 2129 6139 and 12 plants at TR 2153 6095, in slightly damp and disturbed areas on colliery spoil at the former Chislet Colliery, Stodmarsh NNR. This is about 8 km inland from its nearest north Kent coastal presence near Reculver.

Cakile maritima (Sea Rocket), little known at southernmost Dungeness, was recorded on 12 July 2014 by OL growing along the tide-line in good numbers at Lydd MOD Ranges, TR 0007 1787 (East Sussex county, but East Kent vice county) to TR 0072 1773 (around the county boundary). Next day he also noted a large increase in plants from the Dungeness Lifeboat Station area (TR 0958 1809) to the New Lighthouse within the Dungeness NNR, due to shingle accretion, plus lack of sea defence works with heavy machinery along the tide-line over the last five years. The spread of Sea Rocket, however, may be a broader phenomenon, as SB on 24 September 2014 found a few plants on the drift-line of the shingle beach at Dover, TR 3144 4016. These, with a record by SB and OL at Hythe Ranges in 2013, plug the east coast distributional gap between Deal/Walmer and Dungeness. It may be a contra-indication to the view in Philp (2010) that Sea Rocket's Kent range was contracting; whereas the other shingle species *Crambe maritima* (Sea-kale) and *Eryngium maritimum* (Sea-holly) have been spreading.

Callitriche brutia (Pedunculate or Intermediate Water-starwort). Two vc15 sightings appeared to be of this species and each was taken to be subsp. *brutia* (Pedunculate Water-starwort), although recognising the problems inherent in identification without fruits and the comments in Stace (2011) as regards the inconsistency of subspecific distinctions. On 24 July 2014, LR found this east of Old Wives Lees (TR0854); and on 25 October 2014 GK found material in a pond west of Pemples Cross, TQ8847.



Callitriche platycarpa (Various-leaved Water-starwort) seldom fruits so that, without this means of identification, its presence (little recorded in Kent recently) is likely to be obscured amongst findings named as *Callitriche* agg.; but SB collected a fruiting specimen on 7 May 2014 from a farm pond north of High Halden, TQ 89764 38839.

***Callitriche platycarpa* fruit, 7 May 2014. Photo © Sue Buckingham.**

Carex acuta (Slender Tufted-sedge) has a limited distribution in Kent (see vc16 report), but its discovery by a KBRG meeting at the former Dibgate sand quarry, Cheriton (MOD property), TR 17978 36936, was a surprise, being well distant from other Kent colonies. Even more unexpected was its presence over an area of c. 5 x 5 metres spread down the slopes from the top of a steep dry hillock with little else growing there other than *Carlina vulgaris* (Carlina Thistle), an improbable companion. Presumably this was a consequence of mechanical movement of spoil long since, but the species was not observed in the nearest wet area on the quarry bottom.

Carex canescens (White Sedge)^R is in Philp (2010) given only one current tetrad record, in the Orlestone Forest. It has always been rare in Kent, and one of its historic sites was at Willesborough Lees, where recorded by Cowell (1839) and subsisting until 1987, when seen by a KFC meeting. Its disappearance may well be due to the current extent of tree cover. On 16 August 2014, SL found an area where trees had been felled in the previous winter and there were then about 12 small, grazed, non-flowering plants spread over two metres in short turf below power lines at TR 03889 42527, their associates including *Hydrocotyle vulgaris* (Marsh Pennywort). SL points out how tree clearance in the 1950s gave rise to a vigorous renaissance of the sedge, recorded by Scott (1955), so there appears to be a repeating pattern of decline and recovery.

Carex pallescens (Pale Sedge) has a predominantly Wealden distribution, so LR's find at Court Wood, the Blean, TR0757, on 22 May 2014 was an interesting one, the only other record for this hectad being nearly half a century

old. Nearer the main area of distribution, but in a tetrad without record in Philp (2010), JP found the species not far from Sissinghurst Castle, TQ8038, on 25 June 2014.

Carex x pseudoaxillaris (*C. otrubae* x *remota*), the cross between False Fox-sedge and Remote Sedge, was found on 5 June 2014 by SB on a roadside south west of Haffenden Quarter, TQ 87686 40599, with both parents present. SL also discovered it on 27 April 2014 in a sheep-grazed field east of Hertsfield Bridges, River Beult, TQ 7825 4680, with the parents present; one large clump was flowering in a ditch, a second smaller clump was on the bank above the ditch. Three further small clumps were also present on the bank of a dry ditch under a hedge at TQ 78325 46776.

Carpobrotus edulis (Hottentot-fig). A patch of this South African plant, generally to be found introduced/naturalised by the coast, but with little record in Kent, was recorded by OL on 20 November 2014 amongst scrub of *Hippophae rhamnoides* (Sea-buckthorn) in Greatstone Dunes on the edge of an undeveloped mown private plot, TR 08156 23005.

Centunculus minimus (Chaffweed) ^R. We are now beginning, for the current BSBI date class (2010-19) to assemble records for this small and elusive species, which needs targeting, just as EGP undertook specific searches for the purposes of the second county Atlas. However, it now seems that the picture given by Philp (2010) for the East Kent distribution, limited and fragmentary outside its Wealden stronghold, may still have been incomplete, in spite of the advance on what was achieved in Philp (1982). AG on 6 September 2014 found it in Elhampark Wood, with 15 plants growing in damp, disturbed areas on the edge of a forest track at TR 1624 4584 and one plant in damp, open ground on a forest track at TR 1643 4584. He also found on 31 August 2014 eight plants at TR 1844 4824 and at least twenty at TR 1820 4809, both locations in Covert Wood. There was not time to do a full search of the Covert Wood rides, but it seems likely that the species is quite numerous here. There appear to have been no previous records for hectad TR14. Nearer the known Wealden populations were finds at Dering Wood by the KBRG meeting on 5 August 2014, with plants seen along an acid ride at TQ 89712 43740 and over a hundred more at TQ 90221 44094 and TQ 90225 44084 and continuing for several metres south westwards along the ride.

Cf. *Ceratochloa staminea*, 2014. Scan © Geoffrey Kitchener.

Cf. *Ceratochloa staminea* (= *Bromus stamineus*) (Southern Brome). An unusual brome was found by GK and SK spreading on lanesides near Lower Paramour Farm, Ash, TR2831 on 26 July 2014, much as one might see *Ceratochloa cathartica* (Rescue Brome), but more hairy and smaller in



its various parts, with slightly pubescent lemmas. TC (BSBI referee) commented on a specimen that 'The short length of the lemmas suggests to me that this may in fact be *B. stamineus*. Our four species in this section belong to an incompletely resolved cluster of species all introduced from the New World. The abundance and distribution of three of them (*B. catharticus* is pretty well known) are not fully understood because of the lack of clarity in the taxonomy. Even though your specimen may be referable to *B. stamineus* this may not even be its correct name, depending on the resolution of yet further taxonomic problems!'

***Chaenomeles speciosa*, 11 April 2014. Photo © Liam Rooney.**

***Chaenomeles speciosa* (Japanese Quince)** is perhaps more widely naturalised in the British Isles than the similar cultivated plant *Chaenomeles japonica* (also known as Japanese Quince, but with more coarsely toothed leaves and warty shoots), but we have had no vc15 records until 2014, when two finds were reported. The first was by LR on 3 April 2014 in relation to a shrub on the grassy side of Seasalter Road,



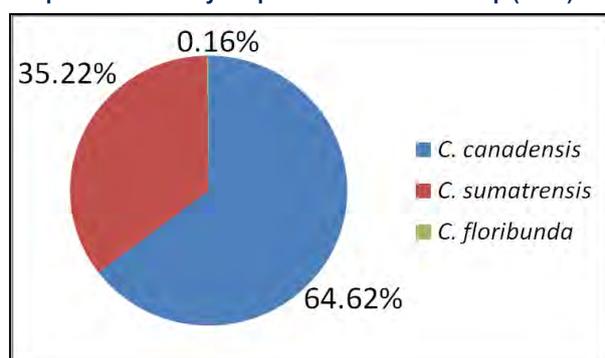
Graveney, TR 05775 63976, remote from housing. The second was by OL on 11 April 2014 on the grass verge of Swan Lane, Sellindge, TR 11011 38429, opposite houses and where it appears to be mown regularly, so as to be growing prostrate through the grass. Accordingly, this species is now treated as **first recorded for East Kent, vice county 15**.

Chenopodium hybridum (Maple-leaved Goosefoot). A couple of plants were found by SB and LR on 30 July 2014 in the weedy margin of an orchard near Stodmarsh, TR 2253 6117 and TR 2252 6115.

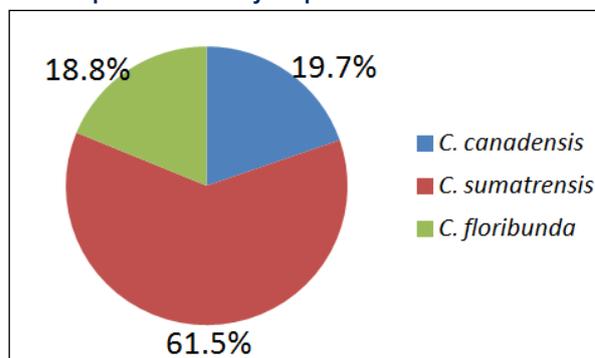
Comarum palustre (Marsh Cinquefoil)^R. A major new site for this rare (in Kent) species was discovered by TI on 15 June 2013 (omitted from Kent Botany 2013), lying further north than the traditional Dungeness locations. This is a wet depression lying north-south in the large shingle expanse between Lade, Lydd-on-sea and Lydd Airport, TR 07117 20887, where some 600 plants were present. It is a remote area and so could have remained undetected for much longer, but for this discovery.

Conyza floribunda (Bilbao's Fleabane)¹ had only one record in Philp (2010), under the name of *Conyza bilbaoana*. At that time, most *Conyza* sightings, roughly two-thirds in terms of tetrad records, were of *C. canadensis* (Canadian Fleabane) and approximately one third were of *C. sumatrensis* (Guernsey Fleabane), which had been spreading in the county since arrival in 1985. Now the position is transformed, with 61.5% of monad records in 2014 being *C. sumatrensis*; and with *C. floribunda* records (18.8%) more or less equalling *C. canadensis*. It is now no longer practicable for the purposes of this report to list new sightings of *C. floribunda* – they are too numerous. Even so, it is possible that they are understated by non-recognition. *C. floribunda* looks rather like a *C. sumatrensis* plant with smaller capitula, the size of those of *C. canadensis*. Its overall colour is darker than *C. canadensis*, nearer the grey-green of *C. sumatrensis*, with which it shares the curved hairs at the stem leaf margins, except towards the bases, where they may resemble the patent marginal hairs of *C. canadensis*.

Proportions of *Conyza* species recorded in Philp (2010)



Proportions of *Conyza* species recorded in 2014



Cosmos bipinnatus (Mexican Aster) is a cultivated annual which may escape from cultivation, as with a self-sown plant seen by LR on 18 September 2014 growing at the base of a wall by the White Horse Inn, Boughton Street, TR 0556 5948, which it had apparently reached from nearby planters. Less explicable, however, was the presence of a single plant seen by LR on 2 November 2014 in the middle of a field, TR 0655 6023, remote from any garden, albeit some distance north of Mount Ephraim gardens.

Cotoneaster bullatus (Hollyberry Cotoneaster). This Chinese shrub produces berries attractive to birds, which no doubt led to its presence towards the top of a steep chalk slope at Western Heights, Dover, TR 314 411, where recorded by GK and SK on 2 October 2014; and several bushes were also seen by the same recorders on 30 November 2014 on scrubby railway land by Joy Lane, Seasalter, TR0965. The fruits of the latter, at 9mm, were large for the species, but rightly showed remains of the style as emerging halfway from the base of the nutlets. The somewhat similar, but larger-leaved *Cotoneaster rehderi* or Bullate Cotoneaster (also seen by GK and SK,

¹ 'Bilbao Fleabane' in Stace (2011), without the apostrophe; but the Latin equivalent of the name commemorates a person, rather than a place, as Sell & Murrell (2006) point out in relation to *Conyza bilbaoana* (treated by Stace as synonymous with *C. floribunda*).

on railway land at Ashford Road, Hamstreet, TR0033, on 8 December 2014) has the remains of the style at three quarters' distance from the base.

Cotoneaster divaricatus (Spreading Cotoneaster) was found, a single bush, out on the shingle of the Lydd Ranges (MOD property) by OL, TI and SB on 28 April 2014, at TR 01322 18631, the second record for vc15.

Cotoneaster salicifolius (Willow-leaved Cotoneaster) was found by GK and SK to be well scattered in chalk grassland above the cliffs near St Margaret's at Cliffe, TR3643 and TR3644, on 21 September 2014. Other species were also present in the vicinity, *Cotoneaster sternianus* (Stern's Cotoneaster) being noted at a trackside, also on chalk, TR 366 440.

Crassula tillaea (Mossy Stonecrop)^R. This 2012 addition to the current Kent Flora from military property at Lydd Ranges, subsequently (2013) found nearby outside the perimeter fence, was found again by OL, 5.5km distant. Three hundred plants were discovered at Millbank Lane, south west of Old Romney, on 11 May 2014. These stretched for about ten metres, between TR 01964 24994 and TR 01949 24983, in a dried up puddle/depression at the largely disused lane. The site is close to a new solar panel farm. It does not appear particularly affected by construction works, but it is of interest that this species was discovered in Cambridgeshire in 2014, apparently associated with new development (pers. comm., ACL). The potential for introduction on military vehicles which could have explained the presence of the species on Lydd Ranges does not seem to apply here.



Crassula tillaea, 16 May 2014. Photo © Owen Leyshon.

Cuscuta epithymum (Dodder)^R was inadvertently omitted from the county rare plant register earlier, being a species considered to be 'Vulnerable' in Great Britain (and now England more specifically). FJR's survey of Lydd Airport lands in June 2014 yielded details of 66 plants over four monads (TR0620, TR0621, TR0720 and TR0721) and of their host plants. It transpires that most were parasitizing as principal hosts *Silene nutans* (Nottingham Catchfly)^R, others *Teucrium scorodonia* (Wood Sage) or both.

Dactylorhiza x grandis (*D. fuchsii* x *praetermissa*). Two plants of the hybrid between Common Spotted-orchid and Southern Marsh-orchid were recorded by FJR in a survey of Lydd Airport lands, TR 0692 2166, in June 2014. One was in grassland, the other on lightly vegetated shingle. The cross has hardly been seen in south east Kent before, although (unreported in Kent Botany 2013), TI on 12 June 2013 found about 100 plants of *D. praetermissa* in a wet shady area on the edge of a gravel pit at the Dungeness RSPB reserve, TR 067 200, with several hybrid specimens with spotted leaves and paler flowers, albeit that *D. fuchsii* was not seen on that occasion.

Datura stramonium (Thorn-apple). Many plants of this toxic annual, some very large, were seen by GK and SK on 18 November 2014 on the tipped slope of a depression or former pit on farmland west of Great Chart, TQ 9706 4245.

Digitaria sanguinalis (Hairy Finger-grass) is often a plant of pavements, enjoying the greater warmth which these afford a south European species. This was the habitat where seen by GK and SK, at the edge of Beach Road, Deal, TR 378 531, on 31 August 2014; and there were similarities as regards the discovery of the species by DG on 1 April 2014 by a busy road near Borstal, TQ7266, on the carriageway side of the crash barrier; but somewhat different was the appearance of one plant in an uncultivated arable field near Ulcombe, TQ 8409 4962, found by GK and SK on 5 October 2014.

Dipsacus pilosus (Small Teasel)^R. Five plants were noted by GK on 27 August 2014 along 10 metres of Godinton Lane, west of Ashford, TQ 9899 4440, shaded by the surrounding woodland.

Doronicum x excelsum (Harpur-Crewe's Leopard's-bane). The assumed hybrid origin, *D. columnae* x *pardalianches x plantagineum*, is probable, rather than proven, as with the next entry, and it is a garden plant capable of spreading, although seldom recorded. How it spread to a busy roadside verge on the A2045 at Blue Bell Hill, TQ 7458 6275, is unclear. It is not a place to stop and deposit garden rubbish nor, indeed, to botanise; but SP and DG recorded it on 14 April 2014, on the carriageway side of a highway crash barrier and they secured a basal leaf for determination (det. GK).

Doronicum x excelsum, left: 14 April 2014, photo © Sue Poyser; right: 28 April 2014, photo © Doug Grant.



Doronicum x willdenowii (Willdenow's Leopard's-bane, *D. pardalianches x plantagineum*) was seen by OL (det. GK) on 12 May 2014, where naturalised from dumping on a ditch bank/roadside verge opposite housing in Barnhouse Lane near Brookland, TR 00150 25041, apparently only a second record for vc15.

Dorycnium hirsutum (Canary Clover). After the first East Kent record for this Mediterranean species, at Sittingbourne, reported in Kent Botany 2013, we now have further evidence of its occurrence elsewhere, which may explain the origins of the Sittingbourne plant as well. On 3 July 2014, having been notified by the finder KC, SB saw 25 plants north of Sandwich, TR 32979 58994, at the base of a bank on a gravelly substrate, and three further plants on the kerbside, both associated with the banks and verges of the Pfizer-constructed Discovery Park, and apparently resulting from the seed originally used to establish them.



Dorycnium hirsutum, 3 July 2014. Photo © Sue Buckingham.

Dryopteris aemula (Hay-scented Buckler-fern)^R was investigated by PS at Parsonage Wood, Benenden, TQ7932 and Robin's Wood, Cranbrook, TQ7634 in June 2014, with 126 plants found at the former location and 29 at the latter. There have been previous records in these woods, but not with the level of information now obtained and which has been fed into the rare plant register account.

Echinochloa esculenta (White Millet) was seen by TI on 25 August 2013 (omitted from Kent Botany 2013) along a well-vegetated track by the margin to a cereal field near Lydd, TR 037 210. It was present with *Chenopodium quinoa* (Quinoa), which grew out into the crop and which suggests the previous use of game bird seed. However, the presence of *Onobrychis viciifolia* (Sainfoin)^R seemed to point to the introduction of pollinator plants instead, so that

margins such as this, particularly when left to fend for themselves, present a somewhat puzzling picture of the flora origins.

Echium plantagineum (Purple Viper's-bugloss) has been noted in other counties in recent years as a presumed seed contaminant with crops such as *Chenopodium quinoa* (Quinoa). On 20 June 2014, LR made comparable observations of many hundreds of plants scattered throughout a rape-field, near Sheldwich, but mainly in the margins along Newhouse Lane (TR 01202 57097 to TR 01951 57206) and along the footpath through the field (including TR0156). Various colour forms were present. Several more plants were seen on the same occasion at nearby Gosmere, TR 02648 57598, in the margins of a wheat-field.

Epilobium lanceolatum (Spear-leaved Willowherb) is sufficiently scarce in the county to have been close to inclusion in the rare plant register, but we have a few more vc15 sightings in 2014: half a dozen plants on a roadside garden bank at Chart Road, Sutton Valence, TQ 8055 4922 on 5 June (GK); a record for a landscaped

area at Hoads Wood Gardens, north west of Ashford, TQ 994 448 (GK, 27 August); a diminutive plant on a quarry spoil heap near Cheriton (KBRG meeting, 27 June); and two or three plants on top of a brick wall near Sutton Valence School, TQ 813 493 (GK and SK, 5 October).

Epilobium x dacicum (*E. obscurum x parviflorum*), the hybrid between Short-fruited and Hoary Willowherbs, was found by GK in recently coppiced ground at Hoads Wood, north west of Ashford, TQ9944, with the parents.

Epilobium x floridulum (*E. parviflorum x ciliatum*) is a not uncommon cross, between the Hoary and American Willowherbs, perhaps better recorded in Kent than anywhere else in the British Isles, and this was seen on a grave in Boughton Monchelsea churchyard, TQ7650, by GK and SK on 2 October 2014; also by GK and LR on 1 September 2014 in an area of tree clearance near Newnham, TQ 959 572.

Epilobium x interjectum (*E. montanum x ciliatum*), the hybrid between Broad-leaved and American Willowherbs, is one of our commonest crosses, although the following finds were only the ninth and tenth in the county for the period from 2010: seen by GK and SK on a pavement at Beltinge, TR2068, on 15 June 2014; and (colour-clashing) in the yellow garden at Salutation Gardens, Sandwich, TR 3332 5807 on 23 August 2014.

Epilobium x mentiens (*E. tetragonum x ciliatum*), the cross between Square-stalked and American Willowherbs, is well recorded in Kent and an additional sighting was made by GK and SK on 30 September 2014 amidst rows of orchard trees between Yalding and Coxheath, TQ 728 508, with the parents, demonstrating the adaptability of willowherbs to the herbicidal regime used in orchards.

Epilobium x palatinum (*E. parviflorum x tetragonum*), the hybrid between Square-stalked and Hoary Willowherbs, was seen on the same occasion and place as the last entry; and also by GK and SK on 2 October 2014 near Boughton Monchelsea Place, TQ 777 495, by a ditch against an orchard boundary hedge.

***Epilobium x semiobscurum* (*E. obscurum x tetragonum*)**, the hybrid between Short-fruited and Square-stalked Willowherbs, presents some challenges in identification, because of the similarity of the parents. However, one plant was found by GK and LR on 1 September 2014 near Newnham, TQ 9595 5727, in an area of tree clearance with many willowherbs present, including the parents. The hybrid was largely sterile and possessed an entire stigma, short appressed eglandular hairs in the upper parts as with *E. tetragonum*, but a very few glandular hairs on the hypanthium (from *E. obscurum*). **This is a first record for East Kent, vice county 15.**

Epilobium x semiobscurum, 1 September 2014.
Photo © Liam Rooney.



Epilobium x vicinum (*E. obscurum x ciliatum*). This relatively common cross, between Short-fruited and American Willowherbs, was recorded by GK on 27 August 2014 in the disturbed ground of recently coppiced Hoads Wood, near Ashford Warren, TQ9944.

Erodium moschatum (Musk Stork's-bill) was originally placed in the county rare plant register, as an archaeophyte with only ten tetrad records in Philp (2010), but was removed in view of the quantity of subsequent finds. This trend of discovery continues, with 13 records made in 2014, all, except three, made in East Kent. Philp (2010) gave its habitat as arable field and waste, perhaps where wool shoddy was formerly used. Only a couple of the 2014 sightings may have had that origin, of which GK and SK's record as abundant in an orchard south of Boughton Monchelsea, TQ 764 500, on 2 October, was new. Most, where the habitat has been noted, were on grass verges, suggesting an origin as a grass seed contaminant, e.g. vc15 finds at a mown grass verge at Westgate (TR 3238 6956, SB, 5 March); at a highway junction verge, Rainham (TQ 80173 68402, GK and SK, 1 February); on a grass verge by the pavement of Dolphin Road and at Stadium Way, Murston (TQ 9178 6427 and TQ 921 647, GK and SK, 1 March); occasional in mown grassland at the Pfizer site north of Sandwich

(TR3259, SB, 25 March); and numerous plants on the wide verge of Wear Bay Road, Folkestone (TR 236 373, GK and SK, 27 October).

Eruca vesicaria (Garden Rocket) was noted twice in 2014: by LR on 3 April at Graveney, TR 06918 64984, where it was present on the sea wall in a recently disturbed area; and by GK and SK, who saw one plant on a pavement near the junction of Avenue Road and Clarence Road, Herne Bay, TR1768, on 12 June.

Eryngium giganteum (Tall Eryngo or Miss Willmott's Ghost). Grown in gardens, where it seems particularly to self-sow itself into paving cracks or the like, this native of the Caucasus and Iran was recorded by GK and SK on 9 June 2014 as two plants in the road gutter at Western Esplanade, Herne Bay, TR 163 681, in leaf only. It appeared unlikely that traffic and herbicidal treatment would permit the plants to mature.

Erysimum cheiranthoides (Treacle-mustard) ^R. Very little has been seen of this weed in Kent recently, which reinforces the relevance of national trends in prompting its inclusion in the county rare plant register. However, SB on 29 August 2014 found scattered plants at the weedy margin of a *Chenopodium quinoa* (Quinoa) crop (grown for bird seed), on the Isle of Oxney south of Ebony, TQ 9143 2798.

***Euonymus fortunei* cv. 'Emerald 'n' Gold'**. A small plant of this cultivar (with leaves edged gold and having a central green splash) was found by GK and SK on a soil heap by a track alongside Timothy Wood, Crabtree Farm, Cranbrook, TQ 7961 3454, on 13 March 2014. The species is **new to East Kent, vice county 15**.

Euphorbia platyphyllos (Broad-leaved Spurge). It feels perhaps counter-intuitive that this species is not on the county rare plant register, whereas the more frequent *Euphorbia exigua* (Dwarf Spurge) is, but *E. platyphyllos* just falls short of the criteria for county scarcity and its national decline as an arable weed appears not to be fast enough to qualify. Nevertheless, we have very few recent records, so that it is encouraging that DM found two plants on waste ground near the Medway at Aylesford, TQ 74176 58523, on 26 June 2014; SB found three plants on the same day at a wheat-field margin south of Waterman Quarter, TQ8389 4133, plus a single plant on 19 August at a field margin near Newchurch, TR 05849 31659; whilst GK and SK on 27 August 2014 observed two plants in stubble, south east of Old Surrenden Manor, TQ 954 398.

Fagopyrum esculentum (Buckwheat) is perhaps most commonly found as a game bird feed crop, but a single plant was found by SB on 19 August 2014 to have taken sanctuary in Newchurch churchyard, TR 05396 31347.

Fumaria capreolata subsp. *capreolata* f. *speciosa*. Evidence was presented in Kent Botany 2012 that this Mediterranean form of White Ramping-fumitory, in which the back of the upper petal turns brilliant crimson after fertilisation, appears to be established in the Dungeness area, reinforced by OL's discovery on 25 April 2014 of more in a fourth tetrad, TR0280, at an alleyway and by gardens, up to Lade. On 8 April 2014, however, LR and JA found one plant by Appledore village hall, TQ 95576 29668, and then saw that it was scattered as a street weed in good numbers from TQ 95595 29538 to the churchyard at TQ 957 292 where it was plentiful in the various flower beds. *Fumaria capreolata* has long been seen at Appledore and if, as seems likely from the extent of the current presence of forma *speciosa* here, it is the Mediterranean form which accounts for older records, then there is a respectable history involved; and in any event this sighting consolidates the status of the taxon as a plant of mainland Britain.

Fumaria parviflora (Fine-leaved Fumitory) ^R. On 20 August 2014, SB noted four very large spreading plants at the margin of a wheat crop on chalk at TR 33530 52378 and alongside the footpath across it at TR 33531 52392, on the Northbourne Court estate. This record contributes to a small cluster in this part of East Kent. *Fumaria densiflora* (Dense-flowered Fumitory) was also growing in company.

***Galactites tomentosa*, 11 November 2014.**
Photo © Geoffrey Kitchener.

***Galactites tomentosa* (Purple Milk-thistle)**. One plant of this attractive Mediterranean thistle was found by GK and SK on 11



November 2014 (det. MC) at Folkestone TR 2084 3725. Its status was somewhat marginal, having just reached the outside of the fence of the Tile Kiln Lane allotments within which it had presumably been grown, with rosettes scattered about. There are few British records for this species, and it is **new to East Kent, vice county 15, and to the county as a whole.**

Galium parisiense (Wall Bedstraw) ^R. From being a nationally Vulnerable species with no East Kent records in Philp (2010), Wall Bedstraw is now turning up in a range of locations. TI found four plants between the cycle track and Jurys Gap Road, TR 01917 19544, south west of Lydd, on 11 May 2014. Perhaps this has something in common with SB's record on 27 May 2014 of the species being in a further monad at Fowlmead Country Park, where it was abundant at the margins of the car park and alongside the cycle track nearby – but this is a long way for seed to travel by bicycle! SB and her botanical class also found on 10 July 2014 many plants spread over several square yards of concrete, just west of the lower tunnel portal at Samphire Hoe, TR 2953 3927. Then, on 29 August 2014, AG, JP and MP found several plants on ant hills on the verge of the High Speed 1 rail route near Hurst Wood, Charing, TQ 9304 4840; so the open ground sites now well exceed the traditional wall habitat.



Geranium nodosum, 30 June 2014.
Photo © Geoffrey Kitchener.

***Geranium nodosum* (Knotted Crane's-bill).** A *Geranium* grown in gardens and readily capable of naturalising, it is, however, seldom seen out of them but was recorded by GK and SK on 30 June 2014 as a small clump, presumably escaped, by a path adjoining woodland at Upstreet, TR 22967 63008. **This is a first vice county record for East Kent, vice county 15.**

Gnaphalium sylvaticum (Heath Cudweed) ^R. The importance of the coppicing cycle for this species is shown by records from Doves Wood near Bodsham, where SB on 25 September 2014 noted 13 plants in the middle of a sandy track on fairly recently-cut chestnut coppice, from TR 10046 46378 to TR 10020 46460. Similarly, recently cleared chestnut coppice on clay-with-flints at Denge Wood, south east of Chilham, TR 0982 5029, held 119 spikes of Heath Cudweed where seen by AG on 29 July 2014; at least 500 more were on 3 September 2014 present in recently cleared coppice ground in the same extensive wood, which is being allowed to acquire a heathy character, stretching from TR 1052 5078 to TR 1083 5092.

Hieracium grandidens (Grand-toothed Hawkweed) is an introduced hawkweed, widely scattered over Britain, with a handful of Kent records, to which SB added a sighting (new to TR35) on 25 May 2014 of several plants on top of a garden wall by Deal Castle, TR 3776 5210.

Himantoglossum hircinum (Lizard Orchid) ^R. The species appears generally to be doing well in East Kent, and it may, as DJ surmises (pers. comm.), be entering a phase of expansion such as occurred in the early 20th century, perhaps due to climatic conditions. A surprise record was made on 14 June 2014 by DM and FB: one plant had appeared on the A249 roadside nature reserve near the Chalky Road (to Stockbury Hill Wood) exit at TQ 8323 6035. This is a reserve better known for its *Arabis hirsuta* (Hairy Rock-cress) population, but it has a very good chalk flora generally; the Lizard Orchid was growing with *Orchis anthropophora* (Man Orchid) and *Anacamptis pyramidalis* (Pyramidal Orchid). These last two orchids also accompanied the Boxley Lizard Orchids, first reported as only two spikes in 2012. A number of botanists visited this site in 2014 (TQ 771 584), where the population has since expanded explosively. In March, 80 rosettes were seen, which translated to 35 flowering spikes when visited by DJ on 11 June, one 80cm high, the plants being spread over c. ten metres of lightly scrubbed road verge.

Hottonia palustris (Water-violet) ^R has recently moved from an absence of any special conservation status in Great Britain to being recognised as 'Vulnerable' to the risk of extinction in the wild in England, echoed by a slow decline recorded in Philp (2010). Fortunately, however, the retreat from the Dungeness area indicated by Philp

(2010) has been countered to a degree by TI finding the species present on 28 April 2014 in both TR0219 and TR0320.

Hydrocotyle ranunculoides (Floating Pennywort), an invasive North American species introduced as a garden pond ornamental, was found by SB and LR on 2 September 2014 as a great raft covering a large proportion of a pond north of Woodchurch, TQ 9513 3569.

Hypochaeris glabra (Smooth Cat's-ear)^R continues to show a wider presence in the extreme south east of the county than had previously been suspected. In the course of a survey of Lydd Airport lands in June 2014, FJR found the species in seven fairly closely located places in TR0521, ten in TR0621, and one in TR0618. To these should be added (unreported in Kent Botany 2013) ten plants found on 15 June 2013 by TI between the ARC and Water Tower Pits, RSPB reserve, at TR 06757 20018.

Hypochaeris glabra, June 2014.
Photo © Fred Rumsey.



Hypopitys monotropa (Yellow Bird's-nest)^R is given as virtually absent from vc15 in Philp (2010) against a background of national decline which has recently seen its designation as 'Endangered' in Great Britain affirmed in England as well. Fortunately, we now have two more East Kent records: JPU found it on 19 June 2014 whilst checking dormouse boxes in Erriot Wood, north of Doddington, TQ 934 587, growing in woodland of chestnut with oak and hornbeam standards; and on 31 July 2104, AL found about six spikes in roadside chestnut coppice at Bigbury, TR 1191 5769, having seen last year's spikes earlier, in spring.

Iris orientalis (Turkish Iris). On 10 June 2014, OL noted a large patch of this white/yellow flowered Iris on the downward grassy slope of a roadside verge of the A259 at St Mary's Bay, TR 0921 2765, where it looked fly-tipped, but well established; also a single plant on the road verge between New Romney and Five Wents Bridge, TR 0427 2609. This species is undoubtedly more fully naturalised along the north east Kent coast, where GK and SK saw it in four monads, including TR0764 (Seasalter, 25 May 2014) and TR1868 (Beltinge, 12 June 2014).

Juncus subnodulosus^R (Blunt-flowered Rush) is a species of base-rich wet conditions, fulfilled by the shallow, cattle-poached ditch at Cuckolds Coombe fen, east of Brook, TR 07792 44402, where alkaline drainage emerges from the chalk downs above and at which SB and AG found a single plant on 11 July 2014. More plants were suspected, but were taken to have been grazed off. This is a significant new find in an area with interesting historic records, such as *Carex lepidocarpa* (Long-stalked Yellow-sedge)^R. This was not then re-found, but several plants of *Samolus valerandi* (Brookweed), normally a coastal plant in Kent but known to grow in open, calcareous habitats near spring lines, were located at TR 076 444. *J. subnodulosus* is also more usually a coastal plant in Kent, just as on the Seasalter Levels, where it was found by SB and LR on 23 June 2014 as frequent in a damp hollow, TR 0707 6347.

Lathraea clandestina (Purple Toothwort). Alphabetically, this is the first of a number of garden plants found by SB on 31 March 2014 in varying degrees of naturalisation in boggy woodland south of Brabourne Lees, TR 082 399, below a garden from which they presumably originate. The garden itself has seepage emerging at its lower level which, running into the wooded valley below, has presumably aided spread. The Purple Toothwort was particularly impressive, having spread for at least 50 metres both north and south of a neighbouring public footpath, and growing parasitic on *Populus x canadensis* (Hybrid Black-poplar), *Salix* spp. (Willows) and *Alnus glutinosa* (Alder); dense patches also grew under trees in the garden. *Lysichiton americanus* (American Skunk-cabbage), in comparison, was just beginning to spread, with several plants in the wet woodland. ***Matteuccia struthiopteris* (Ostrich Fern)** appeared thoroughly established as an extensive patch alongside a flush below the garden, from which it may have spread, if not originally planted, and the colony ran well into the woodland with more than 20 shuttlecocks arising from the branching rhizomes. ***Scilla bithynica* (Turkish Squill)** appeared

as a large patch in the woodland with more scattered plants alongside the nearby footpath. This in south eastern Europe and north western Turkey is a plant of damp grasslands and woods, and is capable of seeding freely in moist situations when grown in the British Isles. To these species, *Onoclea sensibilis* (**Sensitive Fern**) was added on 1 April 2014 by LR and JA, with a number of plants found scattered around tree roots in the wet wood,



clearly established, but with how much original encouragement it could not then be ascertained. When visited by GK later, this species gave the appearance of rhizomatous spread along a seepage line from the garden with several square metres in the woodland. Finally, four crowns of *Osmunda regalis* (Royal Fern) were seen in the woodland by GK on 24 October 2014, whose impression was that this was less likely to have spread out of the garden than the other ferns, and so was presumed to be established from an introduction. Three of these species appear to have no previous East Kent records: *Matteuccia struthiopteris*, *Onoclea sensibilis* and *Scilla bithynica*. Their status and extent of naturalisation appear sufficient for the treatment of all three as **first records for East Kent, vice county 15**.

Lathraea clandestina, 31 March 2014. Photo © Sue Buckingham.

Laurus nobilis (Bay). There were two 2014 sightings of Bay in the course of spreading on its own account. On 25 January, SB noted a seedling on a stream bank near Tenterden, TQ 87984 33742, its garden parent being about 25 metres away. On 8 April, LR and JA counted eight seedlings in Appledore churchyard, TQ9529.

Malva arborea (Tree-mallow) copes well with exposed coastal situations, an analogue for which was noted by LR in his find of a single plant in the centre reservation of the A2 near Upper Harbledown at TR 112 582, on 19 June 2014.

Mentha x verticillata (Whorled Mint, *M. aquatica* x *arvensis*). The hybrid between Water and Corn Mints is sometimes found unaccompanied by parents, but in the case of a discovery by SB and LR on 28 August 2014 in a woodland ride between Dunkirk and Upper Harbledown, TR 09911 59163, both parents were in the general vicinity, but only *M. aquatica*, which may accordingly have been the seed parent, was close by.

Muscari neglectum (Grape-hyacinth), whose Kent presence was noted in Kent Botany 2011, continues to escape from gardens, although not the usual species grown, and was noted in 2014 by SB on 24 March near Kingston, TR 2059 5104; by DG on 14 March at Borstal, TQ7365; by DM on 6 April in another Borstal location, TQ 72753 66599, and on 26 March at an industrial estate at Aylesford with one patch of six flowering plants and other of 160; by GK and SK on 31 March scattered in rough grassland by The Street, Oare, TR 0069 6283; and by TI, who diligently pursued *Muscari* spp. at Dungeness and found *M. neglectum* in TR0617, TR0818, TR0819 and TR0820 in comparison with the usual *M. armeniacum* in 11 monads.

Neottia nidus-avis (Bird's-nest Orchid) ^R was given 12 tetrad records for Kent in Philp (2010), but records from 2010 onwards have more than doubled this number. Several vc15 sightings were reported for 2014, including one well away from the main distribution on chalk, made by GH on 6 May near Tenterden, TQ864361, a roadside plant in a location where the species had been seen about ten years ago but which had then disappeared when the soil surface was scraped in the course of timber extraction.

Nicotiana x sanderae, 21 July 2014. Photo © Liam Rooney.

Nicotiana x sanderae (*N. alata* x *forgetiana*), the cultivated cross between Sweet Tobacco and Red Tobacco, occurs in a range of colour forms of which



pink and white were prevalent amongst about eight plants seen by LR on 1 July 2014 growing from a kerb-side and pavement cracks in Colonels Lane, Boughton under Blean, TR 062 590.

Ophioglossum vulgatum (Adder's-tongue) is not uncommon in the county, although readily overlooked, as presumably had been the case in relation to a population west of Wittersham comprising many thousands of plants across a grazed field at TQ 890 277, extending into the adjoining monad TQ8827, seen by GK and SK on 18 April 2014, and constituting a new hectad record for the Kent part of TQ82.

Ophrys fuciflora (Late Spider-orchid) ^R is in the British Isles confined to East Kent, and AG surveyed all colonies in 2014. The species had an excellent year, with 331 inflorescences being recorded, almost twice as many as in 2013. There were six sites, mostly on the downland between Wye and Folkestone, of which one site may be divided into four sub-sites; another into three sub-sites, and another into two sub-sites. Flowering took place at all sites and sub-sites, except for one site in which no plants were seen and a sub-site where inflorescences could not be found, possibly due to rabbit grazing. The overall healthy flowering plant numbers were belied at one of the sites where there were ten spikes (in comparison with generally over 30 in the period 1995-2006) and which appears to be in long term decline. Hybridisation with *Ophrys apifera* (Bee Orchid) was noted at one location.

Ophrys sphegodes (Early Spider-orchid) ^R is generally regarded as monocarpic, although flowering for up to three consecutive years is not unusual, but DJ has pointed out that a plant first recorded in 2010 on a fisherman's track at Dungeness, TR 095 179, has in 2014 flowered for at least the fifth consecutive year.

Orobanche caryophyllacea (Bedstraw Broomrape) ^R is in the British Isles only to be found in East Kent, and in 2014 we acquired further data as regards its presence at Folkestone. On 20 May 2014 SB found eight plants with total of 12 flowering spikes, all amidst scrub at the foot of Creteway Down, Folkestone from TR 23023 37972 to TR 23077 37968. In June 2014, OL found five further spikes, at TR 23050 37985, TR 23045 37981 and TR 23023 37972 which were considered to be different from those found in May, being further up the slope and to the west.

Orobanche elatior (Knapweed Broomrape) ^R has only two tetrad records in Philp (2010), which is a qualification to be treated as locally rare, but it does appear to be more widespread, albeit scarce. On 10 June 2014, SB recorded it growing on its usual host *Centaurea scabiosa* (Greater Knapweed) in two locations on a privately owned chalk grassland bank at Marley, with 20 flowering spikes in monad TR1850 and 11 in monad TR1849.



***Orobanche hederæ*, 2 October 2014.**
Photo © Geoffrey Kitchener.

Orobanche hederæ (Ivy Broomrape) ^R. A new find of this parasitic plant was made by GK and SK on 2 October 2014, with 19 closely associated spikes observed amidst ivy on a south-west facing, but partly overshadowed roadside at Wierton Hill, TQ 7810 4975.

Orobanche picridis (Oxtongue Broomrape) ^R is regarded as 'Endangered' in Great Britain, but 'Vulnerable' (a less urgent ranking) in England, where it is assessed as having c.500 plants in five locations. Our two Kent

locations are Dover and Kingsdown, and SB added further monads to the species' known post-2010 distribution, with the sighting on 21 June 2014 of six spikes on the footpath along an old tramway at Langdon Bay, Dover, TR 34056 42320 and a further six by the cliff-top grassland footpath south of Kingsdown, TR 3797 4674. In each case, the host plant *Picris hieracioides* (Hawkweed Oxtongue) was present.

Parapholis incurva (Curved Hard-grass)^R was found on the north Kent coast by GK and SK on 25 May 2014, a small patch in the front drive of a house at Faversham Road, Seasalter, TR 05106 65046; and on 15 June 2014 at Reculver, TR 2235 6920, growing on a semi-bare track leading down to the shore.

Parentucellia viscosa (Yellow Bartsia)^R is in Kent mainly based on the Sandwich dunes, but it has also shown some occasional affinity for the Folkestone Sands between Lenham and Ashford. On 29 September 2014, AG, JP and MP found some 24 plants on this geological formation, in a small glade close to the High Speed 1 rail route at Hurst Wood, Charing, TQ 9307 4841. Any open areas in this wood may well warrant further investigation for this species, which was also recorded here some 650 metres away in 2007.

Phleum arenarium (Sand Cat's-tail)^R was recently re-assessed as 'Near Threatened' in England (from a risk level of 'Least Concern' in Great Britain), which qualifies the species for the county rare plant register. Its east coast county presence appeared to have been limited to Pegwell Bay-Deal and St Mary's Bay-Greatstone (picking up again near East Sussex); but SB has plugged this long gap with a find, on 21 July 2014, of a good number of plants on a couple of sandy patches at the top of the shingle beach at Dover, TR 31953 40865, with *Catapodium marinum* (Sea Fern-grass) also present. The disjunctive distribution is presumably affected by the limited amount of suitable habitat along this stretch of coast.

Picea abies (Norway Spruce). Not particularly ready to self-sow, this species was recorded as a sapling in the vicinity of mature trees west of Rough Common, TR 1135 5939, by SB and LR on 14 May 2014.

Pinus nigra (Austrian Pine / Corsican Pine). No self-sown plants were noted in surveying for Philp (2010), but they are not unknown. Two large seedlings were noted by SB on 16 February 2014 on a wall of St Mary's church ruins, Little Chart, TQ 9346 4669, with mature planted trees nearby. Another seedling was seen in the course of a Lydd Ranges survey of 28 April 2014 by OL, TI and SB (TR0320). LR recorded a seedling in Clay Pits Wood



near Boughton-under-Blean, TR0759, on 28 February 2014; and SB and LR together found seedlings near parent trees on a woodland ride in Blean Woods, TR 105 595, both these last instances being recorded as *Pinus nigra* subsp. *laricio* (Corsican Pine).

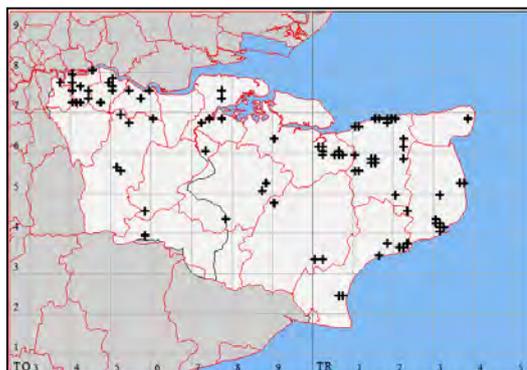
Polypogon monspeliensis (Annual Beard-grass). The KBRG meeting on 27 June came across a patch of this grass, extending for about three metres with outliers, in disused Dibgate Quarry, Cheriton, TR 1797 3692, where affected by seasonal drainage, a first record for hectad TR13. This quarry habitat makes a pair with the find reported in the vc16 records (below). It was not the only atypical habitat for the species which, growing out of a traffic cone at Dungeness, was featured in a published note (Leyshon, 2014), drawing attention to the combined conservation and Health & Safety benefits involved(!).

***Polypogon monspeliensis* at Dungeness, May 2014. Photo © Owen Leyshon.**

Polypogon viridis (Water Bent). From 13 tetrad records in Philp (2010), following none in Philp (1982), this grass has spread so fast that it is no longer worth mentioning individual records. There were 39 in Kent overall in 2014, mostly as a street weed, at kerbs or the base of walls or in front gardens.

***Polypogon viridis* distribution 2010-14.**

Potamogeton friesii (Flat-stalked Pondweed)^R moved from being a 'Near Threatened' species in Great Britain in 2013 to one which is in 2014 'Vulnerable' to the risk of extinction in the wild in England; so it is gratifying that SB and a KFC meeting accounted for records in six different monads in 2014. The Kent distribution is related to ditches on the levels in the north east of the county and these records



fell within this area, although SB's find near Richborough, TR 31344 60515, on 20 June 2014 appears to have been the first in hectad TR36 for a century.

Potamogeton obtusifolius (Blunt-leaved Pondweed)^R lacked records in Philp (2010), although it was supposed that this was probably a result of not looking at the correct habitats at the optimum time, rather than that it had gone from the county. It indeed remains present, as it was found by SL on 24 August 2014 south west of Shadoxhurst, TQ 96103 36485, growing in a pond in the middle of an arable field with *Potamogeton natans* (Broad-leaved Pondweed). It was abundant in submerged patches, appearing somewhat reddish. The pond's banks are cleared more or less annually and so the water is not overshadowed. It is on high ground without being fed by ditches, which presumably means that nutrients do not build up excessively; this would also have been aided by dredging, last undertaken some 15 years before.

Potamogeton obtusifolius,
pond habitat and blunt
leaf tip, 24 August 2014.
Photos © Stephen Lemon.



Potamogeton polygonifolius (Bog Pondweed) is uncommon in the county, reflecting the scarcity of bog habitat, and its discovery by SB and LR on 28 August 2014 in a woodland pool at Church Wood in the Blean, TR1060 5946, is a first record for hectad TR15. A further find in the Blean, by SB on 25 October 2014 at Hunstead Wood, TR 096 568, helps plug a distributional gap in Philp (2010); here it needed separating from the relatively common *Potamogeton natans* (Broad-leaved Pondweed), which was growing in the same pond.

Pseudofumaria alba (Pale Corydalis) is occasionally cultivated, albeit nothing like as much as its yellow flowered cousin, and one plant on mossy shingle was found in June 2014 by FJR in the course of a survey of Lydd Airport lands, TR 06543 18712. **This is a first record for East Kent, vice county 15.**

Pseudofumaria alba, June 2014.
Photo © Fred Rumsey.



Ranunculus aquatilis (Common Water-crowfoot), far from common in Kent, was recorded by SB on 19 May 2014 as abundant in Buttsale Pond, Eastry, TR 3094 5415.

Ranunculus parviflorus (Small-flowered Buttercup)^R. Dungeness remains an important area for this species in Kent, where consolidated shingle offers the well-drained substrate and relative freedom from competition which this annual seeks, and our records for 2010 onwards were supplemented by four more monad records: found by TI on 27 April 2014, ten plants in TR0518, 15 in TR0718 and 145 in three locations in TR0618; and found by FJR in June 2014 on Lydd Airport lands in TR0621, a new hectad record.

Ranunculus peltatus (Pond Water-crowfoot)^R appears to have declined drastically in Kent, with an 81% drop in tetrad records between Philp (1982) and Philp (2010), although this does not appear to be reflected in England as a whole, where its conservation status is one of 'Least Concern'. Our current Kent total, however, was

increased on 3 May 2014, when a KFC meeting found it to be plentiful in a dew pond between Sole Street and Crundale, TR 09098 49609.

Rosa multiflora (Many-flowered Rose), with its large corymbs of white flowers, is not often seen outside gardens, but GK and SK came across a bush on 15 June 2014, growing on the shrubby south side of the A299, Thanet Way, south of Reculver, backing onto arable. It was not near housing and had no appearance of being part of a planting scheme, although it is not impossible that the contractors up-grading the road to dual carriageway between 1994 and 1997 chose the 'wrong' species of rose in landscaping.

Rosa x irregularis (*Rosa arvensis* x *canina* (f x m)) was found by SB (det. RMa, BSBI referee) in a laneside hedge west of Bethersden, TQ 9100 4080. It was an upright shrub, around three metres high, with a high proportion of hips being sterile and abortive. The hybrid was determined as being one in which *Rosa arvensis* (Field-rose) was the female parent, its characteristics being dominant.

Rubia peregrina (Wild Madder) ^R. A well-established plant was found by LR on 9 May 2014 growing over a hedge in Selling Road, Faversham, TR 02376 60307. In Kent, this is a scarce native of the chalk cliffs from Folkestone to Walmer; its casual occurrence inland here is inexplicable. Its 'normal' occurrence was reported by OL in relation to Folkestone Warren (TR2437), where a number of patches in three main areas were seen on 27 February 2014, some known for a while, albeit not featuring in Philp (2010).

Rumex maritimus (Golden Dock) ^R was first found on Sheppey in 2011 (see Kent Botany 2011) and now seems to be more widely established, where conditions are appropriate. SB observed on 31 July 2014 at Elmley NNR some thousands of plants in an area of grazing marsh which had lain under water for four months during the previous winter due to a broken sluice, the colony extending from TQ 9260 6880 to both the eastern and northern boundaries of monad TQ9268.

Rumex x abortivus (*R. conglomeratus* x *obtusifolius*), the hybrid between Clustered and Broad-leaved Docks, was noted by GK and SK in two locations in 2014: on 19 August by the River Stour west of Richborough Port, TR3361; and on 6 November in wetlands west of Hothfield Common, TQ9645. In both cases the parents were present, and the wet habitat reflected the preferences of *R. conglomeratus*.

Rumex x digeneus (*R. conglomeratus* x *hydrolapathum*). The rare hybrid between Clustered and Water Docks was found on 19 August 2014 by GK and SK in the shallow flooded margin of a lake south of the River Stour and east of the former Richborough power station site, TR 3273 6236. There were 17 inflorescences, possibly arising from a single large rootstock, growing amidst a large colony of *R. hydrolapathum*, the only other docks in the vicinity being *R. crispus* (Curled Dock) and *R. conglomeratus*. The hybrid was conspicuous by virtue of its substantial sterility, with most fruits dropped off, presumed inadequately developed, whereas neighbouring *R. hydrolapathum* was holding fruits fully. Tepals were variable, some narrower and more lingulate than those of *R. hydrolapathum*. Stems were c.1.5 metres tall, slightly smaller than much of the *R. hydrolapathum*, most of them flopping over. In the accompanying photograph, the hybrid is represented by the sparse, skeletal growth in the foreground, with fuller *R. hydrolapathum* inflorescences behind.

***Rumex x digeneus*, 19 August 2014. Photo © Geoffrey Kitchener.**

Rumex x dufftii (*R. obtusifolius* x *sanguineus*). The hybrid between Broad-leaved and Wood Docks appears not uncommon in Kent where the parents meet, as they did in a pasture west of Purchase Wood near Daniel's Water, TQ 963 412, recorded by GK on 27 August 2014; and at a pathside next to the River Stour east of Upstreet, TR2363, recorded by GK and SK on 30 June 2014.



***Rumex x heteranthos* (*R. crispus* x *palustris*^R)**, the hybrid between Curled and Marsh Docks, is a scarce cross with only a couple of previous Kent records, neither of which is for East Kent. It was found by SB (conf. GK, BSBI referee) on 31 July 2014 by a ditch on Elmley NNR, Sheppey, TQ 92668 69234 with both parents in an area affected by winter flooding. The leaves were reminiscent of *R. palustris*, and tepals were variably developed, but where mature they were broad-triangular (from *R. crispus*) with fairly short teeth (from *R. palustris*).

***Rumex x knafii* (*R. conglomeratus* x *maritimus*^R)**, the hybrid between Clustered and Golden Docks, appears fairly readily where both species grow together, which they may do at the margins of wet ground, the limiting factor being the scarcity of *R. maritimus*. It was found by SB (conf. GK, BSBI referee) by a bird scrape at Elmley NNR, TQ 92732 68951, on 31 July 2014 with both parents present.

***Rumex x lousleyi* (*R. cristatus* x *obtusifolius*)**. Named after Ted Lousley, who counted docks amongst his botanical interests, this hybrid between Greek and Broad-leaved Docks was seen by GK and SK on 20 March 2014 on a pathside at Conyer, TQ9665. The parents were present in the general vicinity and the plant (in leaf only) was identified from the combination of leathery leaves (from *R. cristatus*) and papillae on the leaf midrib underside (from *R. obtusifolius*).

***Rumex x muretii* (*R. conglomeratus* x *pulcher*)**. The hybrid between Clustered and Fiddle Docks was found by GK and SK on 13 August 2014 in rough grassland on the west bank of the Royal Military Canal south east of Stone-in-Oxney, TQ 9472 2633, with both parents present. The location was a habitat intermediate between the dry grassy banks favoured by *R. pulcher* and damp ground or ditch-sides which *R. conglomeratus* prefers. A plant was also found by GK and LR on 1 September 2014 in the rough grassland of a dry depression, perhaps seasonally wet, in Lorenden Park nature reserve, Painter's Forstal, TQ 998 592.

***Rumex x pseudopulcher* (*R. crispus* x *pulcher*)**. Both parents, Curled Dock and Fiddle Dock, were present in the vicinity of the hybrid, five plants of which were recorded by GK and SK on 23 August 2014 in grassland west of Royal St George's, near Green Wall Road, Sandwich, TR 3477 5820.

***Rumex x sagorskii* (*R. crispus* x *sanguineus*)**. Perhaps better recorded in Kent than anywhere in the British Isles, this hybrid between Curled and Wood Docks was found in five locations scattered across East Kent in 2014: seen by GK and SK in rough grassland south of Little Chart (TQ9445, 1 November); in park grassland at Boughton Monchelsea Place (TQ7749, 2 October); in rough grassland near West Stourmouth (TQ2462, 3 July); and noted as frequent with the parents along field margins by the Great Stour, Sarre Bridge (TR2564, 3 July); and also seen by GK and LR in a clearing by Lady's Wood, Newnham (TR9557, 1 September).

***Rumex x schulzei* (*R. crispus* x *conglomeratus*)**. Another dock with fuller records in Kent than elsewhere, the hybrid between Curled and Clustered Docks was seen by GK and SK in various locations along the River Stour in 2014: by a hedge-line south of the Great Stour between Upstreet and West Stourmouth (TR2463, 3 July); in a damp grazing field south of the river near Minster (TQ2963, 22 July); in grazing marshes by the south bank, south of Minster Marshes (TR3162, 26 July); on the cattle-trampled margin of the River Stour near Richborough Castle (TQ3260, 19 August) and North Stonar (TR3360, 19 August); and in rough grassland at Sandwich Bay (TR3557, 23 August). It was also recorded by GK and LR in the rough grassland of a dry depression near Painter's Forstal (TQ9959, 1 September). The hybrid is more of a north Kent plant because of the greater predominance of these two species together; but it was also seen by GK in the Weald, at a field near Daniel's Water (TQ9641, 27 August).

***Salix pentandra* (Bay Willow)**. Occurrences in southern England are treated as introductions, as indeed was the approach which Hanbury & Marshall (1899) took for Kent. Whilst this was presumably the case for a mature tree recorded by SB on 1 September 2014 south of Hoath, TR 20145 63844, it was not in an obvious area of planting, but in a hedge between farm fields.

***Salsola kali* subsp. *kali* (Prickly Saltwort)^R** is a species of sandy beaches, previously regarded as absent from the east coast of Kent between Sandwich and Greatstone. SB, however, on 24 September 2014 found a single plant on shingle, with some accumulating sand, at the drift-line of the beach at Dover, TR 31379 40155.

Saponaria ocymoides (Rock Soapwort). A second Dungeness record, this rock-garden plant was seen by TI on 28 April 2014 under a broom bush on shingle behind the houses of Coast Drive, Lydd-on-Sea, TR 08888 19181.



Setaria pumila (Yellow Bristle Grass). A single plant was found on waste ground, Marsh Academy, Station Road, New Romney, TR 0700 2495 by OL on 22 September 2014, a new hectad record. It is an occasional casual, also seen north of Cliffe Woods, TQ7374, on 28 September 2014 by DG and SP; and as a couple of plants on a footpath at Lower Hardres, TR1481 5251, on 24 September 2014 by SB, there being evidence of pheasant rearing in the vicinity, which suggested a game bird seed origin.

Sambucus nigra (Elder). The cut-leaved form of this species, which as a cultivar 'Laciniata' has been regarded as handsome enough for the RHS award of garden merit, was seen by LR and JA on 8 April 2014 as a plant in Appledore churchyard, TQ95756 29280, appearing to have arrived without human intervention.

Scrophularia peregrina, 9 June 2014. Photo © Geoffrey Kitchener.

Scrophularia peregrina L. (Nettle-leaved Figwort). A Mediterranean plant, seldom recorded in the British Isles, but known from Cornwall, Dorset and West Kent, this was found as an inexplicable casual against the gatepost of a house at Marine Parade, Tankerton, TR 12455 67253, by GK and SK on 9 June 2014. This species is **new to East Kent, vice county 15**.

Sedum sexangulare (Tasteless Stonecrop) was found by AL on 5 July 2014 growing at the base of a lamp post in Harbour Street, Whitstable, TR 1082 6694. A garden stonecrop, it somewhat resembles *Sedum acre* (Biting Stonecrop), but is larger and the English names provide a means of separating them by taste, bland or acrid (the plant passed the taste test).

Sedum sexangulare, 5 July 2014. Photo © Alex Lockton.



Senecio x albescens (*S. cineraria x jacobaea*), the cross between Silver Ragwort and Common Ragwort, was seen by GK and SK on 31 August 2014, several scattered plants with both parents on the shingly shore side of Princes Drive, Sandwich Bay, e.g. at TR 3645 5749, a characteristic habitat.

Sisymbrium irio (London-rocket) was seen by AL and JM on 28 March 2014 on the pavement of Harbour Street by the Fish Market, Whitstable, TR 1081 6694, extending for about 30 metres along the road and a short distance into Bexley Street. SB visited the site four days later and estimated that there were 670 plants of varying sizes. The occurrences recorded in Philp (2010) were, by contrast, from arable habitats; this appearance may have originated from harbour-related traffic.

Sisymbrium irio, 28 March 2014.
Photo © Alex Lockton



Solanum physalifolium (Green Nightshade), the green of its English name relating to fruit colour, was found by SB and LR on 30 July 2014 at the weedy margin of an orchard near Stodmarsh, TR 22524 61146.

Sorbus x tomentella (*S. aria* x *torminalis*), the cross between Common Whitebeam and Wild Service-tree, is mentioned in Philp (2010) as present in the Blean Woods, and the location was searched by SB and LR on 14 May 2014. Six flowering trees were found in mixed deciduous coppice from TR 11245 60757 to TR 11268 60745 together with at least 12 coppiced standards, showing re-growth of some four to five years. The area is coppiced in order to provide ideal conditions for *Melampyrum pratense* (Common Cow-wheat), the food plant for larvae of the Heath Fritillary butterfly. Coppicing appears compatible with the *Sorbus* hybrid, albeit interrupting the flowering/fruitletting pattern, and it provides seedling opportunities. A good number of seedling hybrids of varying age were present in the vicinity, as also mature *S. aria* and seedling *S. torminalis*. There was also a single small seedling hybrid at TR 11355 60828 amidst prolific seedlings of *S. torminalis* and a few *S. aria*. A separate site in the adjoining monad was searched and three hybrid plants found beside a small woodland path at TR 1115 5917, at least one being re-growth from an older coppiced tree; these are known specimens, marked with stake and collar to prevent clearance. There was, however, no *S. torminalis* present and just one *S. aria* 100 metres away. The degree of isolation, in comparison with the other records mentioned above, casts a degree of doubt as regards their status.

Spiranthes spiralis (Autumn Lady's-tresses) ^R was, remarkably, found by AG on 22 September 2014 on the Chislet Colliery spoil heap at Stodmarsh NNR, TR 2134 6152, where there were 170 plants in flower. Occurrences of this species on a non-calcareous substrate are rare.

Stachys x ambigua (Hybrid Woundwort, *S. palustris* x *sylvatica*), the cross between Marsh and Hedge Woundworts was seen by SB on 5 June 2014 in a roadside ditch near Smarden, TQ 86656 41414, with *S. sylvatica* a few yards away; both parents are not always found with this cross, which may be an indication of its persistence.

***Sutera cordata*, 10 May 2014.
Photo © Geoffrey Kitchener.**

***Sutera cordata*.** A South African plant grown in gardens, usually as an annual because frost-tender, this was recorded by GK and SK as well spread on the pavement of Abbey Street, Faversham, TR 017 616, on 10 May 2014. It had probably derived from planters or hanging baskets in the previous year.



Sometimes known as Bacopa, it has nothing to do with the genus *Bacopa*, which comprises tropical aquatics. **This is a first record for vice county 15, East Kent**, and may be so for Kent as a whole, although GK recollects having seen it on an Erith pavement some years ago, without having made an identification.

Symphytum grandiflorum (Creeping Comfrey). We have several 2014 records for this comfrey, which is grown for ground cover in shade. All records are for woodland margin habitats. It was seen on 12 March by SB at Wingham, well naturalised just inside a wood entrance, TR 24608 58243; also by SB on 31 March near Brabourne Lees, by a footpath through woodland, TR 0829 3995; by SB and LR on 14 May at a wood margin by Blean, TR 1183 6106, close to houses; and by AL and JM on 21 May, well established along the edge of Den Grove Wood, Broad Oak, by the car park at TR 169 608.

Symphytum x hidcotense (Hidcote Comfrey) is a probable triple hybrid, of which *S. grandiflorum* appears to be one parent, and it is being found increasingly as an escape. The blue cultivar was noted by SB on 8 April 2014 near Mersham, TR 0573 3936, from dumped garden waste on a field margin; and GK and SK saw the plant well

naturalised at Upstreet, TR 228 630, by a footpath between woodland and rear gardens and bearing relatively few flowers, but with pink predominating, which probably points to cv. 'Hidcote Pink'.

Tetragonia tetragonioides, with
Shakespeare Cliff behind, 24 September
2014. Photo © Sue Buckingham.



***Tetragonia tetragonioides* (New Zealand Spinach)**

is cultivated as a leaf vegetable, although not necessarily recommended as such, and this may account for some UK inland records; but it is also found occasionally along the south coast, with relatively recent records in Cornwall and the Isle of Wight. These last records seem to have something in common with the discovery by SB on 24 September 2014 of a single flowering and fruiting plant at the drift-

line on the shingle beach at TR 31423 40159, just to the west of the Dover cruise terminal, Western Docks. Presumably seed had arrived by sea, not from native New Zealand, for the species has achieved an international distribution; but potentially from the Channel Islands, the Isles of Scilly or Brittany. Sea current direction would be consistent with this possibility. Whilst this was a **first record for East Kent, vice county 15**, the second record came very rapidly. On 18 December, BBe came across a plant on shingle by the MOD tower at the end of Dengemarsh Gully, Dungeness, TR 06565 16736 (conf. OL, 10 January 2015). The location is above ordinary high tide mark, but within a couple of metres of the storm high water mark and so, whether or not this is an original colonist or derived from an unseen earlier plant further down the beach, this plant is again consistent with a sea-borne origin.

Tetragonolobus maritimus (Dragon's-teeth) was found by AW on 20 July 2014, a single plant growing in front of the beach huts at Tankerton, TR 113 673, to which it may have spread from Sheppey, where it thrives on cliffs.

Triglochin palustris (Marsh Arrowgrass) ^R has now moved to 'Near Threatened' status in England, although its scarcity in Kent was already enough to justify its place in the county rare plant register. The two records made in 2014 were in broadly known areas, the first being near a tetrad given in Philp (2010) and the second near one given in Philp (1982). On 24 June, SB noted 15-20 plants at TR 35798 57509 in an old wet dune slack at Sandwich Bay, TR 35798 57509, with plants such as *Hydrocotyle vulgaris* (Marsh Pennywort) and *Dactylorhiza praetermissa* (Southern Marsh-orchid). On 24 August, a KFC meeting noted a line of plants along a sheep-poached ditch margin for three or four metres and probably considerably more, on Romney Marsh near Hamstreet, TR 0168 3223. The plants were heavily grazed by sheep, leaving just three or four flower spikes.

Umbilicus rupestris (Navelwort) was seen by SB on 17 March 2014 at Hartlip, TQ 83942 64185, with a dozen or more plants on a bare roadside bank, presumably originating from a large colony on a brick wall in the adjacent garden. Less evidently escaped were 70-100 plants of all sizes spread over about 12 metres of an old flint wall outside Digges Place, Kingston, TR2029 5084, also seen by her, on 24 March 2014 (and clearly viewable on Google Earth streetview!).

Urtica dioica subsp. *galeopsifolia* (Stingless Nettle). There were two sightings of this subspecies in 2014, identifiable by the long leaves and wet habitat, but only fully confirmed by ascertaining whether it stings. The records were by GK and SK near Great Stonar, TR 3216 5932, by a ditch on 19 August; and by the banks of the Hogwell Sewer, Reculver, TR 2267 6860, on 15 June.

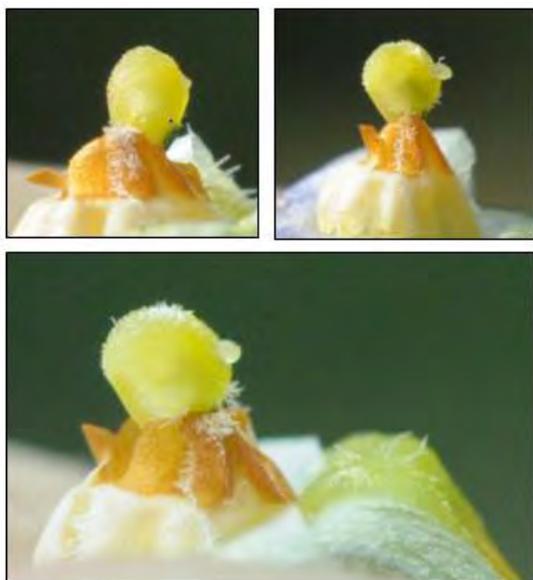
Vicia lutea (Yellow-vetch) ^R in East Kent currently enjoys a very restricted distribution at Dungeness, our knowledge of which was expanded by FJR's discovery in June 2014 of several plants on Lydd Airport lands at TR 060 207 and TR 060 208.

Viola x bavarica (*V. reichenbachiana* x *riviniiana*), the cross between Early and Common Dog-violets, probably ought to be found more often than we have. For the finds during a KBRG meeting on 5 August 2014 at Dering Wood, alongside rides at TQ 89984 44334 and TQ 9018 4412, participants had the benefit of determinations by BWo.

Viola x contempta (*V. arvensis* x *tricolor*^R). The hybrid between Field and Wild Pansy was recorded by SB and AG on 19 June 2014 at a private shooting estate at Stowting Rough, following up a sighting of *V. tricolor* by DT (Natural England) on 11 June. *V. tricolor* was found to be present in two strips of disturbed ground (63 in one; nine in the other) on sandy loam over clay-with-flints. There were a dozen plants of *V. arvensis* at one of the strips and five plants considered to be hybrids, at TR 1311 4319, side by side with both parents. Hybrid flowers consistently measured 12-16 mm across (*V. arvensis* flowers measured between 9 and 13 mm whilst those of *V. tricolor* were usually more than 20mm, certainly no less than 15mm). They were cream flushed with purple. There was some variation in the extent of purple flushing, including between flowers on the same plant. In some flowers the purple flushing was confined to the two upper petals, whilst in others it was spread across all the petals. In all cases the flowers of the intermediate plants were flushed with a paler purple than the larger flowers of *V. tricolor*. None of the flowers of *V. arvensis* showed any purple colouring. Sepals of hybrid plants were usually longer than petals but the difference was noticeably less than shown by *V. arvensis*. The stylar flap of hybrid flowers also appeared to be intermediate between those of the parents. Because of the variability of both parents, determination of the hybrid is best undertaken through a study of the pansy population and with attention to the characters as shown in this record.

Styles, showing the stylar flap as a projection to the right.

Top left, *Viola arvensis*; top right, *Viola tricolor*; below, *Viola x contempta*. Photos © Alfred Gay.



Stowting Rough *Viola* population samples. Top left, *Viola arvensis*; top right, *Viola x contempta*; bottom left and right, *Viola tricolor*. Photos © Alfred Gay



Wolffia arrhiza (Rootless Duckweed)^R, regarded as 'Vulnerable' to the risk of extinction in the wild in Great Britain, has recently been demoted in England as being of 'Least Concern' in terms of risk. However, there is evidence of decline in Kent, against which may be set three new 2014 records, found in both of the county centres of distribution, Romney Marsh and the north east Kent levels. On 20 June, SB recorded it on the Ash Levels, TR 29388 62704, in a marsh dyke in sheep-grazed pasture with *Lemna trisulca* (Ivy-leaved Duckweed) and *Lemna minor* (Common Duckweed). She also found it on 29 August in quantity just south of Small Hythe, TQ 8937 2972, in a marsh dyke with a good flora, including *Utricularia* sp. (a Bladderwort) and *Hydrocharis morsus-ranae* (Frogbit)^R. The third record was made on 17 October, by JBr, who saw this minute species in a ditch near Brookland, TQ 9992 2626, also with *Lemna trisulca*.



X Dactylodenia heinzliana (*Gymnadenia conopsea* x *Dactylorhiza fuchsii*), the intergeneric cross between Fragrant Orchid and Common Spotted-orchid, was found by HS on 19 June 2014 at Denge Wood, south of Chartham, TR 106 516, with the putative parents. There were three separate plants close together, with one, three and four spikes respectively. The flowers smelt of cloves and were stronger scented than *G. conopsea*; the leaves were unspotted. With these factors and possibly a long spur, DJ confirmed identity from photographs, the suffusion of spots on the lip being taken as consistent with the level of variability reported from the Chilterns recently.

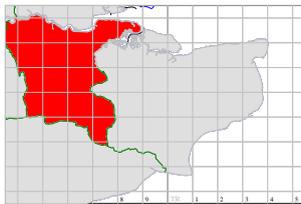
***X Dactylodenia heinzliana*, 19 June 2014. Photo © Heather Silk.**

X Schedolium loliaceum (*Schedonorus pratensis* x *Lolium perenne*), the intergeneric cross between Meadow Fescue and Perennial Rye-grass, was noted by GK on 31 May 2014 with the parents in an arable field margin near Newenden, TQ 844 277.

Zantedeschia aethiopica (Altar-lily). About 20 specimens, mostly small and in leaf only, of this

South African garden plant were encountered by GK and SK on 19 August 2014 between Sandwich and Richborough, TR 3216 5932, pushing up through an area of soil and other materials apparently deposited for the purpose of raising the level of vehicle-accessible ground on marshland.

Plant records for West Kent (vice county 16)



Achillea filipendulina (Fern-leaf Yarrow) was noted by RMB on 1 November 2014 as a casual, with seedlings present by cultivated plants near the north west end of a park by Erith High Street, TQ 514 782.

***Alchemilla alpina* (Alpine Lady's-mantle)** in Great Britain has a native distribution from the Lake District northwards and so its discovery in Kent is not related to this. A single plant was found by CB and GK on 1 May 2014 on a path in Crockham Hill churchyard, TQ 44409 50730, without any indication of nearby cultivation or other evidence of origin; it was also seen by a KBRG meeting a week later. It was definitely not the more-to-be-expected species *Alchemilla conjuncta* (Silver Lady's-mantle) as it had leaflets split to the base, silver-hairy on lower side and less than 6mm wide. **This is a first record for vice county 16, West Kent.**

Allium paradoxum (Few-flowered Garlic). A patch, 2 x 2 metres, of this pernicious *Allium* was recorded by GK on a woodland roadside, Blowers Hill, Penshurst, TQ 51275 42713. Presumably a discard, it was accompanied by native *Allium ursinum* (Ramsons) from the adjoining woods; seen and identified here on 12 May 2014, although first found on 24 March 2012.

Arbutus unedo (Strawberry-tree). A tree was seen by L&DH on 28 October 2014 in simultaneous fruit and flower, otherwise inconspicuous amongst hollies and other trees/bushes lining Malling Road, Teston, TQ 70280 53788, and so has been overlooked before now. Not planted, and presumed bird sown, there having been at least two other trees in the village from which seed may have come, albeit that one has died.



***Arbutus unedo*, 28 October 2014.
Photo © Lorna Holland.**

Artemisia absinthium (Wormwood), never common in Kent, was noted by SB on 7 August 2014 near a pillbox fortification by the Medway south of Barnes Street, TQ 6412 4735, a new hectad record.

Barbarea intermedia (Medium-flowered Winter-cress). There are only a handful of Kent records for this introduced species, one of them by RMB, who added to that a sighting on 19 April 2014 of six plants on a bridleway behind the former Polhill Arms, TQ 504 603, a few days short of flowering.

Barbarea verna (American Winter-cress). Several plants were seen by GK on 3 April 2014 at Collier Street, TQ 7191 4604, on a field bank with roadside ditch excavations. In Kent, this is seldom seen away from the east coast.

Brassica elongata (Long-stalked Rape) is an introduced species which does not appear to have been seen in Kent for over a century and was found by MC on 8 November 2014 on waste ground near high-rise flats in St Norbert Road, Brockley, TQ 360 752.

Bromopsis benekenii (*Bromus ramosus* subsp. *benekenii*, Lesser Hairy-brome)^R was noted in Kent Botany 2013 as believed to be present in Kent, but not well recognised. It is now clear that plants fulfilling all identification

criteria (as well as a range of intermediates with *Bromus ramosus* subsp. *ramosus*) are not uncommon. These were demonstrated by MB at a KBRG meeting on 16 July 2014, when a plant in shade beside the footpath leading towards the River Darent between Lullingstone Castle and Lullingstone visitor centre, TQ 52858 64326, was noted. This possessed a drooping panicle, one panicle branch at the lowest node, and a scale at the base of that branch which was not ciliate. Later that day, the meeting was also shown the taxon growing near the junction between the A225 and Fackenden Lane, TQ 5266 6076, in a marginal habitat on chalk under the shade of roadside bushes/trees, open to the west.

Bromopsis benekenii (*Bromus ramosus* subsp. *benekenii*),
16 July 2014. Photo © Liam Rooney.



Bromus secalinus (Rye Brome)^R (see also vc15 report) was widely reported in West Kent, being seen at Ranscombe (three monads, RM and/or CS); Winkhurst Green, Charcott (two monads) and near Chiddingstone Causeway (SL). SL points out (pers. comm.), in relation to the last sightings, that the species has long been known in this general area, as when the Croydon Microscopical and Natural History Club in 1888 saw oat-fields 'overrun to an injurious extent' between Hever and Chiddingstone (Croydon NHS, 1889). It is at present an open question as regards how far the apparent comeback of this species in recent times (which has taken place in some other counties, as well), after a decline with other arable weeds in the latter part of the 20th century, is related to an unknown source of introduction or a re-appearance from the seed-bank, perhaps reflecting changes in agricultural practice. However, it is intriguing that the only Kent record in Philp (1982) is one from near Chiddingstone, suggesting a degree of continuity in this area.

Cardamine impatiens (Narrow-leaved Bitter-cress)^R. Having previously found this species in a number of sites in the Eden catchment, on 11 May 2014 SL found it south of Skinners Farm, east of Edenbridge, TQ 45295 46525, with 14 plants by a pond in the shade of coppiced *Acer campestre* (Field Maple) and 13 more on a more open but thickly vegetated bank by the pond. This is in the general area of the first discovery in Kent, in 1880.

Carex acuta (Slender Tufted-sedge). From Philp (2010) one would suppose that the Kent distribution of this sedge is along the Wantsum and the Medway; and from Philp (1982) one would glean that the coverage formerly included the Beult, with one tetrad record in the vicinity of Chiddingstone. Yet Hanbury & Marshall (1899) gave a number of sightings in the Eden catchment. From SL's 2014 discoveries, it is evident that the Eden catchment presence has continued, but unrecognised. On 3 May, he found large separated patches flowering in and along a wet field ditch west of Mill Farm, by the River Eden north of Chiddingstone Castle, from TQ 493764 5968 to TQ 49310 45861. A further clump was seen in the same monad on 12 July, in a shaded ditch near its mouth with a pond at TQ 49247 45816, detached from the main population. In the Vexour Bridge area east of Chiddingstone on 3 May SL recorded a five metre flowering patch under a poplar plantation in The Grove by the River Eden, TQ 51740 45641, in a pool within an old ditch; and a small patch west of The Grove, TQ 51780 45343. West of Penshurst on 12 July, he also came across two patches in open ditches across fields, at TQ 51679 43533 and TQ 51832 43581.

Carex nigra (Common Sedge)^R is far from common, with only nine Kent tetrad records in Philp (2010), and these suggesting that the species is virtually absent from West Kent; but further records were added in 2014: by GK on 15 May, in relation to a small quantity at the edge of a pond by Emmet Hill Lane, Laddingford, TQ 6991 4846; and by SL on 3 May, as regards a damp field corner near the River Eden, west of Mill Farm, Chiddingstone, where there were loose patches from TQ 49229 45812 to TQ49216 45753, denser near a pond, and with *Oenanthe fistulosa* (Tubular Water-dropwort)^R growing nearby.

Carex strigosa (Thin-spiked Wood-sedge) particularly favours the Gault Clay, but SL in 2014 made a number of records in other areas, given here from west to east: on 11 May, a small clump in a damp ditch in sheep-grazed pasture near Edenbridge, TQ 45319 46507; on 23 August, north west of Chiddingstone Causeway, one plant in Brickyard Plantation, TQ 5100 4725, and on 4 October, singletons on a vehicle trackway through Birdfield Plantation, TQ 517 474 and TQ 517 475, all suspected of having arrived as vehicle-transported; on 12 December

two large clumps below an Ardingly Sandstone outcrop, Penshurst Park, TQ 52700 45154 and a further patch near a ditch on Ardingly Sandstone at Redleaf Wood, TQ 5276 4603; on 12 September, patches spread out along a stream through West Wood north from Hall's Green, TQ 52744 49594, and likely to be spread along most of this stream within the monad; and on 8 November patches spread along stream banks on the northern edge of Shipbourne Wood, either side of the public footpath between TQ 60923 52552 and TQ 60994 5250. The species can be overlooked for *Carex sylvatica* (Wood-sedge), which was also present at some of these sites.

Carex vesicaria (Bladder-sedge) ^R was placed on the rare plant register as scarce in Kent, in view of only four tetrad records being given in Philp (2010), but it since transpires that it is much more plentiful than this, although its register status is still justified by its recent designation as 'Vulnerable' to the risk of extinction in England by reason of the extent of decline. It may well be that this decline will not be supported by Kent data, although the extent of records will be affected by the intensity of specific search. West Kent records in 2014 with no recent sightings in the same monad were made by SL in several sites, given here from west to east: on 23 November, west of Cowden, TQ 439 401, where there were thin patches in Alder carr away from dominant *Carex paniculata* (Greater Tussock-sedge) tussocks; on 11 May, east of Edenbridge and south of Skinners Farm, where there was a patch at a pond, TQ 45292 46556, and another on the river bank in sheep-grazed pasture at TQ 45344 46402; on 3 May, a ten metre strip along the edge of a flooded field boundary ditch below a hedge, north west of Chiddingstone, TQ 49193 45795; and on 26 April, east of Tonbridge near Hartlake Bridge, TQ 62962 47419, where there were two patches growing between *Carex vulpina* (True Fox-sedge) in a wet field ditch below a hedge, and at TQ 627 473, where there was a single long patch growing with *Carex riparia* (Greater Pond-sedge) close to the junction of Mill Stream with the River Medway.

Carex vulpina (True Fox-sedge) ^R. SL's researches into the status of this Wealden rarity, reported in Kent Botany 2013, were continued in 2014 and we now know more about its Kent status than since Francis Rose's investigations. It is by no means as rare as would appear from Philp (2010) and even the more extended distribution shown in Philp (1982) appears to understate the position. It seems to have been lost from some old locations, but has been re-found at others which have long lacked sightings. Somewhat surprisingly, four or five young clumps were seen on a KBRG meeting led by SL on 12 June 2014 in a ditch created in 2005 in conjunction with gravel workings near Hartlake Bridge, indicating that the sedge can act as a pioneer species. Drastic cleaning operations may by no means be incompatible with its survival or spread. Full details of *C. vulpina* sightings are given in the rare plant register but in summary, SL's 2014 records include: eight new clumps west of Penshurst in a ditch below a hedge (TQ5143); ten new clumps at The Grove, near Chiddingstone (TQ5145); new records by the Ballast Pit at Haysden Country Park (TQ5746); sightings both north and west of Hartlake Bridge, Tonbridge (TQ6247), probably corresponding to records between 1943 and 1998; also a cluster of plants east of Hartlake Bridge, at Ottershaw (TQ6347) seen with SB; a new clump by a silted pond at Hale Street (TQ6749); and a large clump in a ditch at Cross-in-Hand, Staplehurst (TQ7845) around where found by FR in 1946.

Carex x pseudoaxillaris (*C. otrubae* x *remota*), the cross between False Fox-sedge and Remote Sedge, was the subject of a surprising number of 2014 records, taking vc15 and 16 together, given that the total reported nationally for the period 2010-14 is only 15. The vc16 records, except for a sighting by GK in a ditch near Benover, TQ 712 473, were by SL. He recorded it on 20 June in a ditch/dyke dividing sports fields running into the Medway, south east of Hawden Farm, TQ 58294 46822, where there was a very robust tussock by the water's edge, with the parents in the vicinity. At Chiddingstone, where a plant is mentioned in Kent Botany 2013, he found two further plants, at TQ 51054 47049 and TQ 51068 47047. It is evident from this and the vc15 finds that, whilst there are not large hybrid populations, hybridisation does not necessarily result in isolated individuals.

Centaurea cyanus (Cornflower) ^R. It is becoming increasingly difficult to identify Cornflower occurrences which are classic arable weed sightings, rather than recent wildflower sowings. However, the finding by SL on 14 July 2014 of nine plants widely spaced out in a wheat-field (for which a sample grid-reference is TQ 49142 48811) east of Bough Beech reservoir seems a very good candidate for appearance from a seed-bank. The number was increased to ten by a further find on 16 July by SL and PB in the same field, which extended coverage from monad TQ4948 into TQ4949. There must have been more, bearing in mind the constraints of searching, and the crop generally being taller than the Cornflower. Pointers to non-introduced status were the wide and 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. A further plant

seen by SL in a neighbouring wheat-field, at TQ 498 488 on 27 July 2014, was less convincing as an appearance from the seed-bank, as this part of the field was woodland in the 1940s.

***Centaurea cyanus*, 14 July 2014. Photo © Stephen Lemon.**

Centunculus minimus (Chaffweed) ^R. There should still be much scope to update knowledge of this species in the Bedgebury area, and on 25 July 2014, JVC and JAR recorded near Flimwell, TQ 72138 30930, a small patch 30 x 10 cm on a damp woodland track together with a few other plants in the vicinity. Away from the concentration around Bedgebury, SB found Chaffweed to be frequent along a narrow, damp footpath near Pembury Walks, at TQ 6189 4229, for five metres either side of this point. Twenty to thirty plants of the equally diminutive species *Radiola linoides* (Allseed) were also present, a not uncommon association.

Cerastium diffusum (Sea Mouse-ear). In the centre reservation of the A228, near Snodland and Leybourne Lakes, TQ 7035 6070, this salt-tolerant annual was found by GK on 3 April 2014, on sandy/silty ground derived from highway detritus laced with de-icing salt.

Chenopodium hybridum (Maple-leaved Goosefoot). A scarce species of disturbed ground, this was found by GK on 18 August 2014 in a couple of places at Brooklands, Dartford: one plant by Powder Mill Lane at TQ 5449 7292 and 129 plants further east at TQ 54826 73070, where works were being carried out.

Cicuta virosa (Cowbane) ^R. The appearance of this species by the River Eden in 2005 had given rise to some puzzlement, given that it had not hitherto been known as a native in Kent. However, the mystery was solved in 2014 by GJ, who pointed out its presence, planted at the water maze by the lake at Hever Castle, created in 1997. This has given rise to a scattering of plants on the north shore of Hever Castle Lake, observed by SL on 14 July 2014, and no doubt seed is washed further downstream along the River Eden.



Hever water maze and lake margin, with *Cicuta virosa*, 14 June 2014. Photos © Stephen Lemon.

Claytonia sibirica (Pink Purslane) seems surprisingly little naturalised in Kent given that it can appear very much at home, as, e.g., seen by GK and SK on 21 May 2014 on stream banks in TQ7740 and in a stream oxbow, TQ7840, well away from housing, west of Knox Bridge, Cranbrook.

Clinopodium acinos (Basil Thyme) ^R was reported in several new Kent locations, but the strongest population appears to be that recorded by DS on 24 June 2014 near Fawkham golf course, TQ 598 674, where there were over 1000 plants on poor chalk soil on a small south-facing slope and also in a football car park area, emphasising how well the species manages on disturbed chalk ground.

Cotoneaster lacteus (Late Cotoneaster). One shrub was seen on 16 January 2014 by GK and SK at Parsonage Lane, Frindsbury, TQ 7467 6991, where it had evidently seeded from a garden plant on the other side of the road. As with so many other *Cotoneaster* sightings, this was on chalk.

Dipsacus pilosus (Small Teasel) ^R. This seems to have been a good year for the species, and a new site was recorded by CC, with a tall clump about ten metres square growing off Hartley Bottom Road, New Ash Green, TQ 6139 6498. This is only about 3 km from the known location at the east side of Hartley Wood (TQ6167 and TQ6168), where JP and DS severally saw enormous quantities.

Echinochloa esculenta (White Millet) was seen by GK and SK on 22 September 2014 as a roadside casual at Wrotham Heath, TQ 637 580, probably on soil imported as part of the recent construction of a roundabout at the junction of the A20 and Seven Mile Lane. The same location held an intriguing mix of alien species, including *Datura stramonium* (Thorn-apple), *Nicandra physalodes* (Apple-of-Peru) and *Petunia x hybrida* (Petunia).

***Epilobium brachycarpum* C. Presl (Panicled Willowherb).** This species was first found in the UK in 2004, near Colchester, but not identified until 2010, when seedling material was sent to GK as national referee to be grown on for identification. This annual has appeared ever since in GK's garden at Halstead without encouragement, but has not been claimed as wild in Kent, due to the manner of its introduction. The species has now appeared in the wild, found by GK and SK on 22 September 2014 on a cleared commercial development site off Hampstead Lane, Yalding, TQ 686 500. There were several thousand plants growing on largely bare levelled gravelly ground, whose dominant flora comprised millions of *Conyza floribunda* (Bilbao's Fleabane). A concentration of plants was found in an area of c. 20 x 60 metres, but odd plants or groups of them were found widely scattered. All had gone over flowering and were in seed. It is a distinctive species, belonging to a different section within the genus *Epilobium* than our usual species and having a different chromosome number, recognised by the deeply divided petals, wiry stems and short capsules. The species is of North American origin, where the flower size varies, and there is one form with larger flowers which are out-crossing and another with smaller flowers which is presumably self-pollinating. The Essex form has small flowers (and although no flowers were present on the Kent plants, they are assumed to be the same) and these are noticeably smaller than those of the British native willowherb species. It appears to be the form which has been spreading in Europe in recent years. It was written up for Essex by Adams (2010) and is known from France, Germany, Italy and Spain. Its Yalding location was on sharp-draining ground, as is the Essex colony, which grows on bare sand. There is a possibility that this may prove to be an invasive plant, as has been experienced in Germany, where the rate of spread is comparable with the historic spread of *Epilobium ciliatum* (American Willowherb) in the British Isles, although *E. brachycarpum* appears to act as a pioneer and so eventually declines with vegetative succession in an open habitat (Gregor et al, 2013). This is a **first record for vc16 (West Kent) and for Kent as a whole.**



Epilobium brachycarpum, September 2014.
Scan © Geoffrey Kitchener.

Epilobium lanceolatum (Spear-leaved Willowherb). This was seen by GK on 21 May 2014, in a plant pot in a garden centre at Knox Bridge, TQ 789 402, potentially a record for somewhere entirely different! Spread in this way has long been recognised (Walters, 1979). It is therefore not surprising that SB also recorded it on 24 July 2014 as a container weed on her doorstep at Tonbridge, TQ5989 4558.

Epilobium roseum (Pale Willowherb) was recorded as a street weed – apparently its usual habitat in our county – at Goodhart Way, West Wickham, TQ 39071 67004, by GK on 17 October 2014.

Epilobium x dacicum (*E. obscurum x parviflorum*), the hybrid between Short-fruited and Hoary Willowherbs, was recorded in four locations in 2014, all but the first in new hectads. It was seen by GK and SK in a field south of Ightham Mote, TQ5853, on 4 November (fairly late for an effective determination); at the edge of a lavender field at Lullingstone, TQ5263, on 21 August; on weedy ground by field polytunnels near West Peckham, TQ6552, on 18 September; and by GK at a pavement edge in Chamberlain Close, West Wickham, TQ3766, on 29 September.

Epilobium x floridulum (*E. parviflorum x ciliatum*), the cross between Hoary and American Willowherbs, was recorded by GK with the parents on a sandy/gravelly area associated with quarrying at Hawley, TQ 550 727, on 18 August 2014.

Epilobium x limosum (*E. parviflorum x montanum*) was noted with the parents in brambles at the edge of an area of cleared scrub and trees at Shorne, TQ 695 713, by GK on 18 August 2014. The stigma lobes of this cross between Hoary and Broad-leaved Willowherbs characteristically project forward at an angle intermediate between the spreading lobes of *E. montanum* and the upright lobes of *E. parviflorum*.

Epilobium x mentiens (*E. tetragonum x ciliatum*). At least two specimens of the hybrid between Square-stalked and American Willowherbs were present in an arable margin at the edge of woodland east of Dunks Green, TQ 6223 5247, recorded by GK and SK on 29 August 2014.

Epilobium x palatinum (*E. parviflorum x tetragonum*), the hybrid between Hoary and Square-stalked Willowherbs, was seen by GK and SK at TQ 6220 5245 at the date and near the same site as given in the preceding entry. RMB also recorded it in a garden at Eynsford, TQ5465, with flowering persisting into late October.

Erinus alpinus (Fairy Foxglove) is more usually a rockery plant, but naturalises on old walls, the habitat where seen flourishing by SB on 2 January 2014 around Coldharbour Lane, Hildenborough, TQ5791 4998 and TQ5795 5000.

Euphorbia amygdaloides subsp. *robbiae* (Turkish Wood Spurge). Mrs Robb's bonnet seems seldom to escape from gardens other than by rhizomatous growth under fences, but on 1 November 2014, GK noted a couple of pavement seedlings at Highfield Road, Kemsing, TQ 543 590; the parent was not present in the adjoining garden, but was some 15 metres away.

Filago minima (Small Cudweed)^R. Now that this species is for the most part confined to the Folkestone Beds in Kent, it is of interest that recent records have now emerged further south, from the Tunbridge Wells Sand Formation. On 16 August 2014, SB encountered it on the Tudeley RSPB reserve, occasional on sand where the surface had been scraped off to encourage the growth of *Calluna vulgaris* (Heather), e.g. at TQ 6160 4256 and TQ 6165 4258; and on a bare sandy track around TQ 6169 4189. There seem only to have been a couple of TQ64 records (pre-2010) before.

Gnaphalium luteoalbum (Jersey Cudweed)^R. To the metropolitan street weed occurrences of this species has been added a record at Hind Crescent, Northumberland Heath, TQ 5051 7741, seen by an LNHS meeting on 26 July 2014.

Hedera algeriensis (Algerian Ivy). A small plant was found growing in woodland at Goathurst Common, TQ 4946 5182, by GK and SK on 31 December 2014 in an area of dumped garden refuse from which it had evidently derived. There are only a couple of previous West Kent records. With its leaf unlobed, bearing a dark green centre and creamy-white margins, this ivy resembled the cultivar 'Gloire de Marengo'.

Helleborus orientalis (Lenten-rose). One plant was seen by GK on 27 February 2014 at Watercroft Wood, Halstead, TQ 490 624, presumably a garden throw-out. Recorded as this species, to which it was closest, it probably included one or more other taxa, perhaps *H. atrorubens*, in its ancestry; the extent of hybridisation in *H. orientalis* cultivars is such that it is perhaps easiest to regard them as a hybrid complex, *H. x hybridus*, although this name is not accepted by all. Likely also to have originated as a garden throw-out, but located well into a wood off Mote Road, Ightham, TQ 5826 5388, a well-established flowering plant was seen by SP and DG on 7 March 2014.

[*Hieracium cambricogothicum* (Llanfairfechan Hawkweed) was credited by Philp (2010) as present at Riverhead, Sevenoaks, where known to CW since the early 1950s, and accepted for this station by Sell & Murrell (2006). Doubt was cast on its identification by Rich et al. (2007), as it could not be found here in 2004 and 2006, only *Hieracium cantianum* (Kent Hawkweed) and *Hieracium sabaudum* (Autumn Hawkweed) being present, and examination of herbarium material of '*H. cambricogothicum*' material from Riverhead suggested that it was more similar to *H. cantianum*. In 2014, DMC examined much of the *Hieracium* collection at Maidstone Museum, including specimens from CW's original gatherings and determinations (labelled as *H. cambricogothicum* from Dunton Green, which adjoins Riverhead), and he considered that these were *Hieracium trichocaulon* (Hairy-stemmed Hawkweed). DMC accepted the determination of *H. cambricogothicum* collected by CW at its type locality in Llanfairfechan, where (Rich et al., 2007) it can no longer be found. It looks as though the species may never have been a Kent plant.]

Hieracium scotostictum (Dappled Hawkweed), an introduced species with spotted leaves, was recorded in the course of a KBRG meeting on 8 May 2014, with several plants on a low roadside wall by the road to Crockham Hill church, TQ 4429 5067.

Lathyrus hirsutus (Hairy Vetchling). A further plant was found by GK and SK on the Swanscombe peninsula, between a footpath and drainage channel, TQ 60387 75470, some 650 metres from the find reported in Kent Botany 2012, an area proposed for redevelopment.

Luzula x borrieri (*L. forsteri* x *pilosa*), the hybrid between Southern and Hairy Wood-rushes, was seen by RMB, a single plant conveniently growing between the two parents, on a steep slope near the corner of Canada Heights, Swanley, TQ 538 690.

Mentha x verticillata (Whorled Mint, *M. aquatica* x *arvensis*), the cross between Water and Corn Mints, was noted by DM on 1 July 2014 near the Medway at Teston, TQ 70876 53275 (conf. SB).

Mentha requienii (Corsican Mint) was recorded by JVC and JAR on 25 July 2014, whilst botanising within the administrative county of East Sussex (but West Kent botanically), where it was frequent in damp, shady woodland near Flimwell, TQ 7220 3065, thus re-affirming a 1986 record in this neighbourhood.

Menyanthes trifoliata (Bogbean). The discovery of this species by SL on 29 June 2014 as a non-flowering mat dominating the open western edge of a pond, and present to a lesser extent along the more shaded eastern margin, in fields north of Charcott, TQ52716 48238, appears to be a new record for hectad TQ54.

Oenanthe fistulosa (Tubular Water-dropwort) ^R is seldom found in Kent outside the coastal marshes and levels, but SL located several populations in the Eden catchment on 3 May 2014. There was a 14 metre strip running towards a pond in a damp field corner by the River Eden north west of Chiddingstone, TQ 49219 45768; and west of Moorden, TQ 51680 45924 and TQ 51671 45955, there were two discrete populations of non-flowering plants in a cattle-grazed flooded field corner by the river, growing clustered together out of the water, some accompanied by *Carex nigra* (Common Sedge) ^R.

Oenanthe pimpinelloides (Corky-fruited Water-dropwort) appears to be expanding its range in West Kent grassland. Finds by GK (several scattered plants in acid grassland on Hayes Common, off Baston Road, TQ 4082 6561, on 13 June 2014) and by RMB (one plant in grass near an access-way through Lullingstone Park, TQ 509 643, on 9 June 2014) fall into an existing pattern of spread likely to be associated with mowing equipment. (This may also account for RMB's find of *Rhinanthus angustifolius* (Greater Yellow-rattle) ^R on the same day at Lullingstone Park as well, below the fourth tee of the golf course.) The discovery by SB on 26 June 2014 of a 10 metre long patch east of Frittenden, TQ 83356 41523, at the margin of a wheat field by a hedge, however, appears less likely to have been the result of anthropogenic spread, although its native state in Kent is difficult to assess (Hanbury & Marshall, 1899, rejected all records, while leaving the door open for its discovery).

Orobanche elatior (Knapweed Broomrape) ^R. Two plants were seen in the chalky grassland of KWT's Longfield reserve by DS and GK on 19 June 2014, TQ 5963 6907 and TQ 5963 6908, where discovered by DS earlier in June, when there had been a third plant, since disappeared. A fourth plant was reported by DS on 25 June

2014, c. 20 yards away from the rest, with the host species *Centaurea scabiosa* (Greater Knapweed) close by. This is a welcome reappearance in the Longfield area, where there have been other sites in the past.

***Orobanche elatior*, 25 June 2014. Photo © David Steere.**

Physalis peruviana (Cape-gooseberry) was recorded twice in 2014: once, perhaps unsurprisingly, as an urban pavement weed at Bexhill Road SE4, TQ 367 741, seen by MC on 8 November; and also, more unexpectedly, in a field margin at Ranscombe Farm, TQ 7088 6827, seen by RM on 5 November.

Polypogon monspeliensis (Annual Beard-grass) ^R is in Kent usually a plant of coastal grazing marshes, but on 18 August 2014 was found by GK to be widespread in a gravelly/sandy area related to Darenth Road Quarry, Dartford, TQ 549 726, extending to TQ 550 727.



Potamogeton trichoides (Hairlike Pondweed) is better known in Kent as a Romney Marsh plant, but a KBRG meeting on 12 June 2014 found it to be frequent in a flooded gravel pit between Golden Green and Five Oak Green, TQ 640 469. It was growing in shallow water by a roosting area for geese, the water probably being enriched by their droppings, which also raises the question as to whether birds were responsible for introduction. Otherwise, the nearest localised Kent record in recent times appears to be that by EGP near Hawkhurst in 2006.

Pratia pedunculata (Matted Pratia) is a prostrate, blue flowered New Zealand garden plant and whilst a garden plant in a garden would not normally feature in these records, it is of interest in that it comprises a patch c.110cm in diameter on a back garden lawn at Tonbridge Road, Teston, TQ7054, where it had not knowingly been introduced and grass seed had been sown three years before. Its origin is unknown, whether from the grass seed, or some other contaminant of horticultural activity. The plant was investigated by L&DH in July 2014 and subsequently visited by RMB. The species has not been seen in Kent, but because of status, it is not being treated here as a formal first record, rather it is a plant to look out for.



***Pratia pedunculata*, 18 July 2014. Photo © Lorna Holland.**

Ranunculus aquatilis (Common Water-crowfoot). Just as we have one vc15 record for 2014, there was also one for West Kent, this made by SL who on 12 April found the species in flower in a flooded field edge next to the railway and in flooded vehicle tracks near a working quarry south west of Yalding, TQ 68188 49341 and TQ 68049 49157.

Ranunculus peltatus (Pond Water-crowfoot) ^R is scarcer in Kent than the last Water-crowfoot, and was recorded by SL on 11 May 2014 east of Edenbridge, TQ 45131 46705, where there were abundant flowering plants in an open pond in a grazed field.

Rumex x dufftii (*R. obtusifolius* x *sanguineus*), the cross between Broad-leaved and Wood Docks, typically bearing erratically developed lingulate tepals with slight marginal teeth and leaves with some papillae on the midrib underside, was recorded by GK and SK in three vc16 sites in 2014: a hedge field boundary near Dunk's Green, TQ 611 525, on 30 October; a wooded field margin south of Luddesdown, TQ 671 656, on 24 August; and rough grassland at Roydon Hall, TQ 666 514, on 22 September. The marginal sites are very characteristic of this cross, where *R. sanguineus* creeps out from woodland or hedge shelter.

Rumex x sagorskii (*R. crispus* x *sanguineus*), the hybrid between Curled and Wood Docks, was noted by GK and SK on 4 November 2014 at a field margin south of Ightham Mote, TQ5853; and by GK on 21 May 2014 at Knox Bridge, TQ7840, growing with the parents and identified by intermediate leaf characters.

Rumex x schulzei (*R. crispus* x *conglomeratus*), the cross between Curled and Clustered Docks, was seen, with the parents, by GK and SL at Holborough Marshes, TQ 709 628, on 26 May 2014, the wet ground providing suitable conditions for the *R. conglomeratus* parent.

Ruta graveolens (Rue) is seldom encountered outside gardens, but one plant was found by GK and SK on 16 January 2014 by the Tower Hill footpath east of Frindsbury, remote from houses and without evident explanation of origin.

Silybum marianum (Milk Thistle) was seen by JBr on 25 October 2014 at Allhallows, TQ 839 788, a row of plants amongst seaweed and flotsam at the top of the beach below the concrete sea wall, an unusual habitat. One might almost suppose that it would have been better named '*Silybum marinum*'!

Sorbus x thuringiaca (*S. aria* x *aucuparia*), the hybrid between Common Whitebeam and Rowan, was recorded by a KBRG meeting near Shoreham, TQ 5264 6100, as a small sapling under beech, part of a field boundary which included much *S. aria*.

Spiranthes spiralis (Autumn Lady's-tresses)^R. County reports for this species in 2014 were for East Kent (which reflects its usual distribution), except for ABA's account of 43 flowering spikes in his garden at Aylesford, TQ 719 577 on 4 August 2014. This is apparently only the third flowering here in the course of 23 years and previously only small numbers were involved.

Stranvaesia davidiana (Stranvaesia) from China is grown for its foliage and berries, and apparently bird-sown bushes were found by GK and SK along the Greensand ridge, one on a sandy/cherty woodland slope north west of Chartwell, TQ 4534 5186, on 29 December 2014; and the other in Stubbs Wood, near Ide Hill, TQ 496 518, on 31 December 2014.

Tilia cordata (Small-leaved Lime)^R. A probably relict population in Wealden gill woodland was mentioned in Kent Botany 2012. The subsequent publication of this find elsewhere (Sansum & Ryland, 2013) mentioned a further record (L. Hutcheby, 2000, Mopesdon Wood) in unpublished Forestry Commission data. This site was investigated by GK on 6 May 2014, when many trees were found on wooded slopes on both sides (but mostly on the south) of a gill valley through mudstone of the Tunbridge Wells Sand Formation between TQ 7397 3161 and TQ 7378 3152. None appeared coppiced (albeit the occasional basal shoot appeared naturally and layering may have occurred) and most were seeming similar-aged, with only a few larger ones at east end of distribution, the largest having a bole of c.180cm circumference. The woodland flora was otherwise also of considerable interest, with *Cardamine amara* (Large Bitter-cress), *Cardamine bulbifera* (Coralroot) and *Narcissus pseudonarcissus* (Wild Daffodil) also present.

Typha x glauca (*T. angustifolia* x *latifolia*), the hybrid between Lesser Bulrush and Bulrush, was noted by SL on 14 June 2014 as the most common *Typha* taxon along the northern edge of Hever Castle lake, for example at TQ 48765 45610 and TQ 4824 4537. It was growing in long strips and showed leaves ranging between 11mm and 15mm wide, narrower than much *T. latifolia*, although within its overall range, but having a slight gap on the spike separating male and female flowers, which would not normally be seen with that species; leaf colour was intermediate.

Vicia tenuifolia (Fine-leaved Vetch). This species has hitherto very few Kent records (and these are not always clear as to the vice county involved) and requires careful distinction from *Vicia villosa* (Fodder Vetch) and forms of *Vicia cracca* (Tufted Vetch). On 25 May 2014, DS came across a large *Vicia* at the KWT Longfield Bank reserve, TQ 5957 6909, on chalk grassland at the edge of trees and scrub, where he had assisted in clearing back *Prunus spinosa* (Blackthorn) in the previous winter. The plant lacked a bulging base to the calyx and so was not *V. villosa*. The very narrow leaves suggested *V. tenuifolia*. Stace (2011) and Sell & Murrell (2009) adopt slightly different approaches in separating *V. tenuifolia* from forms of *V. cracca*. The key in Stace (2011) provides tests of corolla length, which the Longfield plant fulfilled (with corollas of 12-16mm fresh, 11-14 mm dry), and the requirement that the standard limb be longer than the claw, which was amply fulfilled. Sell & Murrell (2009)

describe forms of *V. cracca* of which the narrowest leaved one is var. *leptophylla*, in which leaves are 1-3mm wide and corollas 8-10mm long. The Longfield plant had larger corollas, but leaf width was generally 0.5-0.8mm, so again pointing to *V. tenuifolia*. The site was visited by DS and GK on 19 June 2014, to confirm. It was then recognised by GK as a location where he had seen the plant 20 years or so previously, but without his identification of *V. tenuifolia* being confirmed. So there is evidence of long persistence.



Vicia tenuifolia, 4 June 2014. Photos © David Steere.

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