

Kent Rare Plant Register

Draft species accounts

I



Kent rare plant register

This section of the register covers:

Iberis amara

Inula crithmoides

Isolepis cernua

It is issued in draft, pending further development. Records, photographs and information regarding the occurrences of these plants in Kent will be welcome.

The register accounts give priority to data from 2010 onwards, but some historic data are also included (however, in the data tables, generally no specific sites without post-1970 records) so as to indicate trends and where the plant may yet be discovered or rediscovered. Distribution maps for records from 2010 onwards show vice counties 15 and 16 in white (the boundary between is a black line) and local authority boundaries by red lines. See the Kent webpage of the BSBI website at <http://www.bsbi.org.uk/kent.html> for the full Kent rare plant register list, the introduction to the register and a list of 'probably extinct' Kent plants.

Abbreviations used in the text:

Recorders' initials:

GK Geoffrey Kitchener

JC James Cadbury

LR Lliam Rooney

RG Bob Gomes

Other abbreviations:

MNE Maidstone Museum herbarium

***Iberis amara* L. (Wild Candytuft)**

Draft account. Kent records and photographs required.

vc 15 and 16, but possibly gone from both

Rarity / scarcity status:

Wild Candytuft is a nationally scarce native of south central England which grows on bare calcareous ground, currently regarded as casual elsewhere in the British Isles. It is considered to be **Vulnerable** to the risk of extinction, both in England and in Great Britain as a whole, with losses having taken place when myxomatosis reduced populations of rabbits which were maintaining disturbed open conditions. The species is **rare** in Kent and may already be extinct in the county.

Account:

The first published record for Kent was by Christopher Merrett in his *Pinax rerum naturalium Britannicarum* (1666), where he described it as 'On the Cliffs beyond Deal Castle in Kent'. There are only a handful of other historic records. Daniel Cooper included the species amongst plants seen in gravel-pits at the back of Castle Wood, Shooter's Hill (*Flora Metropolitana*, 1836). There is also a record in a list of plants seen by William Pamplin at the 'Hills surrounding the lower Bell and overlooking Kits Cotty House, near Aylesford' published by Matthew Cowell in *A Floral Guide for East Kent etc.* (1839). It was collected by Edward Edwards at Shorne in 1843 (specimen in Manchester Museum); and Messrs. C.W. and H.N. Ridley contributed a record from Cobham to Hanbury and Marshall's *Flora of Kent* (1899).

Discounting a 1938 specimen from East Peckham in **MNE** (probably cultivated), there are only two modern localities for the plant in Kent.

The first of these is on the eroded chalk of the downland scarp at Cherry Garden Hill, Folkestone (probably TR2937). This appears to have been first found by Vera Day in June 1951, recorded as at Folkestone water-works. Francis Rose saw it in June and July 1954, and found it still to be locally abundant in June 1986. Whilst it was seen by Joyce Pitt in the 1990s and noted by Eric Philp at some time during 1991-98 for publication in Philp (2010), since then the open character of the terrain has declined, and there appear to be no recent records. Search in 2013 found the area heavily scrubbed over; some clearance has since been carried out, but search in 2015 did not reveal that it had returned.

The second site was discovered by Geoffrey Kitchener in June 1995, on a bare chalk slope below rabbit burrows in Holborough Quarry, recorded as at TQ76B but, as far as can be interpreted against changes in the landscape, this was around TQ 700 627. Eric Philp subsequently (but before 1999) also found it at TQ66W in the same quarry; and the last sighting at TQ76B appears to have been by him and Doug Grant in July 2001. This eastern part of the quarry was sold off for housing and is now the Holborough Lakes development. The location is now no longer suitable for the species, although it is just possible that some residual terrain exists, a chalk cliff inaccessible behind security fencing.

Iberis amara is (normally) an annual and is fairly intolerant of competition, favouring bare ground accordingly. It appears to flourish on the well-drained substrate on steep slopes, as with the Kent sightings at Deal, Kit's Coty, Folkestone and Holborough. All these sites are on chalk, although the historic Shooter's Hill gravel-pit site suggests that it is not necessary for the habitat to be both well-drained and calcareous. There appears to be an association with rabbits, Showler (1994)¹ mentioning the presence of the plants at rabbit scratchings.

¹ Showler, A.J. (1994), *Iberis amara* L. in eds. Stewart, A., Pearman, D.A. & Preston, C.D., *Scarce Plants in Britain*, JNCC.

One might suppose that this could in some cases relate to the disturbance required to provide bare ground for annual germination; but the Holborough site below rabbit burrows constituted bare ground without need for intervention by rabbits. Showler (1994) also refers to the seed being long-lived and responding to vegetation removal and ground disturbance, so there may yet be scope for the Folkestone population to re-appear.

Iberis amara is capable of being confused with *Iberis umbellata* (Garden Candytuft), also a plant found on disturbed ground, but as a garden escape. They are separated by Wild Candytuft having an inflorescence which lengthens when in fruit; also its fruits are smaller (most or all 3–6mm, in contrast with 7–10mm for Garden Candytuft).

Inula crithmoides L. (Golden-samphire)

Draft account.

vc 15 and 16

Rarity / scarcity status:

Inula crithmoides is a local plant of coastal habitats in southern parts of the British Isles. Its conservation status is regarded as one of 'Least Concern', both in England and Great Britain as a whole; but it is a nationally scarce species. North Kent is one of the areas in which it is most abundant, and it warrants no particular rarity/scarcity designation in the county.

Account:

Golden-samphire enjoys very early notice in the county, being recorded by John Gerard in his *Herball* (1597) as *Crithmum Chrysanthemum* or Golden Sampier which 'groweth in the mirie Marsh in the yle of Shepey, as you go from the Kings ferrie to Sherland house' (presumably Shurland Hall, Eastchurch). Except for orthography, this description of distribution remained unaltered in Thomas Johnson's 1633 edition of the *Herball*. Johnson had himself seen it at Sheppey, listing it in his *Iter Plantarum* (1629) amongst plants such as *Atriplex portulacoides* (Sea-purslane) and *Salicornia* sp. (Glasswort) around Sheerness, after his botanical party had survived interrogation by the Mayor of Queenborough, who was suspicious of the group's motives.

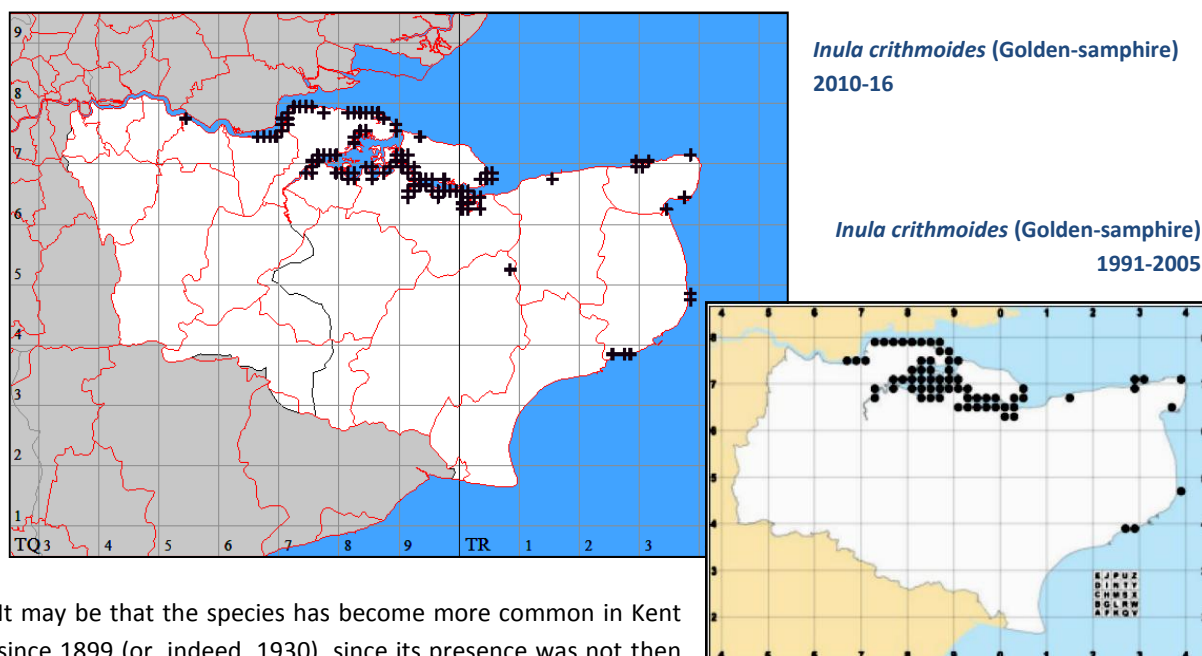
Oare. Photos by Lliam Rooney, 19 August 2010.



Hanbury and Marshall (1899) regarded *Inula crithmoides* as rare and very local on muddy coasts, listing it (as well as at Sheppey) on the mainland coast in locations from Rainham to Faversham and Seasalter. Habitats included creeks and ditches, and it was reported by C.P. Hurst for the 1899 Flora as being abundant at Conyer's Creek. Abundance below Rainham can also be inferred from the Flora's listed records, although these do not include a collection by Joseph French in 1848 at the marshes there (specimen in the University of Birmingham herbarium).

By the time of the 1971-80 county survey (Philp, 1982), it would have been inappropriate to treat the species as rare in Kent, and Eric Philp described it as very local, but often frequent where it does occur. That survey gave records for 63 tetrads, and the 1991-2005 survey (Philp, 2010) evidenced a fairly similar distribution, with 67 tetrads. The position is again broadly similar as regards 2010-16 records, with 62 tetrads (106 monads), the reduction probably reflecting the shorter recording period rather than any changes. It looks as though its distributional status is fairly stable.

As Golden-samphire is not uncommon in Kent, the distributional data maintained in this register will be at 1km square (monad) level. This will entail recording at a finer scale than the tetrads given in Philp (2010), from which the following 1991-2005 map is taken (with kind permission of the late Eric Philp and the Kent Field Club).



It may be that the species has become more common in Kent since 1899 (or, indeed, 1930), since its presence was not then recognized along the Thames estuary on the north of the Hoo peninsula and towards Eastcourt Marshes; nor on Thanet and down the coast as far as Folkestone. It is possible that sea wall construction or improvement has provided suitable habitat for Golden-samphire, although the reverse might have been expected, and it does not provide an explanation for some of the newer locations.

Inula crithmoides is frequently found in linear populations along the north Kent coast, particularly by the Thames, Medway and Swale estuaries just within reach of high tides. These populations may be extensive: in 2010 it was recorded as an almost unbroken chain along the coastline between Harty Ferry (Oare) and Conyer Creek. It may be found within the north Kent saltmarshes, amongst saltmarsh plants such as *Atriplex portulacoides* (Sea-purslane) *Limonium vulgare* (Common Sea-lavender) and it may line the channels there. More often, however, it is seen growing along the upper reaches of saltmarsh, merging into the spring high

tidemark habitat where it also grows extensively in the absence of saltmarsh. It has been recorded at the base of sea walls (on the maritime side); within the sea wall sloping stone batter; and at the crest, where land vegetation begins. Occasionally, it appears alongside saline ditches landward of the sea wall, and it has been recorded further inland near Faversham, by a sandy track over 400m inland from Oare Creek.



Hoo, shoreline habitat. Photo by David Steere, 31 July 2015.

Unusually, it appears scattered on the East Kent chalk cliffs, a habitat which was not observed at all by the earlier botanists in Kent and which appears² to be a habitat type found in Kent and westwards in Great Britain from Purbeck. The earliest such sighting appears to have been by Francis Rose, who collected material in 1947 from chalk cliffs by the sea at East Wear Bay, Folkestone; and this may have been the location within the more exposed cliff zone subject to spraydrift with halophyte vegetation mentioned in Rose & Gehu (1964)³. We now have records from 2010 onwards, not only for the base of chalk cliffs at East Wear Bay, but also at Samphire Hoe, Ramsgate, Cliftonville, Westgate, Birchington and at the base of cliffs on the edge of a small salt marsh created by a break in sea defences at Kingsdown. Rodwell (2000)⁴ points to the possibility of there being distinct ecotypes of *Inula crithmoides* in view of the striking difference in distribution of the saltmarsh and maritime cliff vegetation communities.

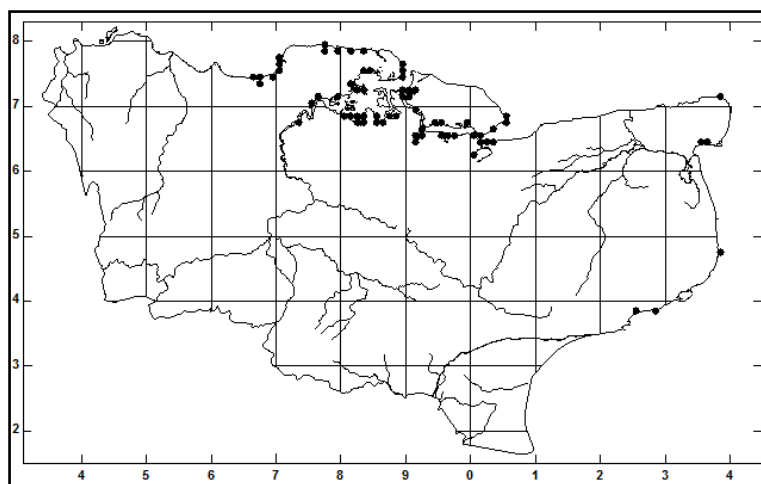


Grain, sea wall habitat. Photo by David Steere, 23 June 2015.

Inula crithmoides should not be capable of confusion with other species, but a non-flowering plant might resemble *Suaeda vera* (Shrubby Sea-blite), which is rare in Kent. Both have succulent leaves (as with many plants which need to store water in a saline environment), but those of *Inula crithmoides* are somewhat toothed.

A fly, *Myopites eximius* Séguy (sometimes given as *eximia*), known globally only from the coasts of northern France, including the Channel Islands, and the coasts of southern England and Wales, is associated exclusively with *Inula crithmoides*. Larvae form galls in the capitula, which become thickened and enlarged, with a hard woody texture, within which the larvae are cocooned. The first known Kent record was in 1939, and after 1950 there appears to have been a gap in sightings until 1982. The cumulative position to 2015 as regards Kent records is illustrated in the accompanying monad map which necessarily is also a record for the presence of *Inula crithmoides*.

This account has benefited greatly from the assistance of Laurence Clemons as regards the insect associations of the plant.



² Malloch, A.J.C. (1994), *Inula crithmoides* L. . in eds. Stewart, A., Pearman, D.A. & Preston, C.D., *Scarce Plants in Britain*, JNCC.

³ Rose, F. & Géhu, J.M. (1964), Essai de phytogéographie comparée. La végétation du Sud-Est de L'Angleterre et ses analogies avec celle du Nord de la France. *Bulletin de la société botanique de France 90ème session extraordinaire*: 38-70.

⁴ Rodwell, J.S., ed., *British Plant Communities* vol.5, Maritime communities and vegetation of open habitats.

Isolepis cernua (Vahl) Roem. & Schult. (Slender Club-rush)

Draft account

vc 15

Rarity / scarcity status:

Slender Club-rush is a generally coastal plant in the British Isles, frequent in Ireland and western Britain, extending eastwards to the New Forest where it is locally common, with an outlier in Norfolk. Its conservation status in both England and Great Britain as a whole is accordingly of 'Least Concern'. Its presence at only two locations in Kent has only been recognised recently and its county status is **rare**.

Account:

According to Philp (2010), *Isolepis cernua* was first found in Kent by James Cadbury on 5 September 2006, a single plant at Worth Minnis. This led to a check of all herbarium specimens labelled as the very similar species, *I. setacea*, including specimens from Worth Minnis, but all proved to have been correctly named.



Not widely known at the time was the listing of this species in a related ditch system, in the course of the Hacklinge Ditch Survey of 2003. The location was explored in 2011 by Bob Gomes, who came across a single tussock, from which verification by way of a smooth nutlet was derived. A more extensive assessment of the presence of the species was undertaken in 2013 by Bob Gomes, Lliam Rooney and Geoffrey Kitchener. It was found that the pastureland south west of Great Wood at Worth was dissected by several internal ditches, open to access by cattle from both sides (unlike the boundary ditches, which were in part protected from grazing by electric fencing, albeit that it was the boundary ditches which appear to have been covered by the 2003 survey). Slender Club-rush was found to be well distributed along these internal ditches.

Worth, habitat. Photo by Geoffrey Kitchener,
5 September 2013

Isolepis cernua grew on the muddy tussocks created by cattle trampling down ditch margins, sometimes growing in isolation, otherwise generally with *Juncus* spp. Other species of interest in the vicinity included: *Baldellia ranunculoides* (Lesser Water-plantain), *Juncus subnodulosus* (Blunt-flowered Rush), *Oenanthe lachenalii* (Parsley Water-dropwort) and *Utricularia vulgaris* sens. str. (Greater Bladderwort). The southern ditch consists of two arms, joining at right angles, and Slender Club-rush was frequent along both. The northern ditch held less Slender Club-rush, but this appeared to be a consequence of being steep-sided for part of its length so as not to provide the cattle-trampled marginal habitat which the species favoured elsewhere. Accordingly, the continued presence of the species is likely to be sensitive to ditch maintenance activities and the continuation of cattle grazing so as to provide the open muddy ground for establishment from seed.

A second site, 1.5km to the south, was found by Stephen Lemon in August 2016. This was at a site near Hacklinge, c.1.5km away, TR 34058 54243. One fruiting patch was seen growing in a damp, closely grazed sward of marshy, sedge-rich fen pasture in the Ham valley. Associated species included *Hydrocotyle vulgaris* (Marsh Pennywort) and *Calliergonella cuspidata* (Pointed Spear-moss). It was not seen along the muddy poached edge of a nearby dyke, which would have afforded habitat similar to that at the Worth site.

Worth. Photo by Bob Gomes, 5 September 2013



The species is inconspicuous, showing up only as small light green tufts or patches at the base of other ditch vegetation, and could easily have been overlooked as a native of long standing in this area. If a means of introduction is to be sought, in view of the distance of these locations from other populations, then there is no obvious vector, other than birds. The species is known horticulturally, as a plant for bog gardens and pond edges, sometimes under the name of fibre-optic grass. However, whilst there is a public footpath in the vicinity of the Worth site, there is no public access through the fields at Worth and Hacklinge where it grows, so the deliberate planting or abandonment of the species here seems very unlikely. Other British occurrences tend to be in the vicinity of the coast, and the Worth and Hacklinge sites are located only 2.6 and 3.4 km respectively from the sea.

Isolepis cernua is most readily seen by virtue of its bright green colour, but it needs to be distinguished from its relative, *I. setacea*, which is occasional in Kent in damp areas on heaths, woodland rides and at pond margins. The most obvious distinction is that the bract of *I. cernua* is usually shorter than the inflorescence, where in *I. setacea* it overtops. But this is not conclusive, and not all the *Isolepis* at Worth bore shorter bracts. The surface of the nuts is, however, diagnostic and it is smooth in the case of the Slender Club-rush, rather than ridged as with *I. setacea*.

Worth. Spikelet showing unridged nuts.
Photo by Bob Gomes, 5 September 2013



Site	Grid reference	Site status	Last record date	Recorder	Comments
Worth	TR3455, TR3456	SSSI	(1) 5 September 2013 (2) 30 June 2011 (3) 5 September 2006 (4) 2003	(1) RG, LR & GK (2) RG (3) JC (4) CEC	(1) Found along ditches in pasture (i.e. both sides of ditches accessible to cattle) south west of Great Wood, Worth. Growing on muddy tussocks where margin poached, either in isolation or amidst <i>Juncus</i> spp. Seen at TR 34294 55750 (3 plants and another 3m away), TR

					<p>34283 55767 (1 plant and another 4m away), TR 34278 55772 (many plants), TR 34272 55781 extending to TR 34268 55791 (several plants), TR 34236 55834, TR 34216 55826 (several plants), TR 34196 55807 and for at least 10m westwards (many plants). And along a deeper ditch further north, TR 34137 55947 (2 plants), with further records in adjoining monad, TR3456. These were, at TR 34184 56003 and for 15m further north east, and at TR 34218 56040 (several plants).</p> <p>(2) TR 3426 5579, growing in a shallow, senescent ditch crossing a grazing marsh field west of the Great Wood at Worth Minnis. The bottom of the ditch held some shallow water and was in places poached by cattle that were grazing the field at the time.</p> <p>(3) Location as TR35M</p> <p>(4) TR 34071 55864 (ditch 121) and TR 34236 55675 (ditch 119).</p>
Hacklinge	TR3454	SSSI (unit 56)	13 August 2016	SL	<p>Cattle-grazed, marshy, sedge-rich fen pasture in Ham valley, on west side of A258 south of Hacklinge Farm; area south of the dividing dyke, TR 34058 54243. One fruiting patch in damp closely grazed sward by dyke, with <i>Hydrocotyle vulgaris</i> and <i>Calliergonella cuspidata</i>. Searched for but not found along muddy poached edge of dyke.</p>