

# CHESHIRE VC58 COUNTY RARE PLANT REGISTER 2015



*Cicuta virosa* L. near Gatesheath

This assessment of the rarity of plants in Cheshire is based principally on the work for the New Atlas of the British and Irish Flora (2002) and more recent tetrad recording. The current recording will, no doubt, change the detail but the basic content will remain much the same. Many people have contributed records and they are to be thanked. If this document helps with conservation, I hope that will be their reward. The maps were produced using Dmap.

Principal habitats worth conserving in Cheshire are the coastal dunes, meres, mosses, clough woodlands, ponds and ex-industrial sites like the Northwich and Runcorn lime-beds and Moore sand quarry. Cheshire is not the richest of counties and de Tabley's Flora is like a catalogue of lost treasures, but it is not too late to save what we have left.

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# LIST OF RARE PLANTS IN CHESHIRE VC58

## Internationally Rare

*Luronium natans*

## Nationally Rare

*Asplenium trichomanes* ssp *pachyrachis*

*Calamagrostis stricta*

*Mentha pulegium*

*Rubus wolley-dodii*

*Equisetum x meridionale*

*Trichomanes speciosum*

## Nationally Scarce

*Adiantum capillus-veneris*

*Carex elongata*

*Cicuta virosa*

*Coincya monensis*

*Elatine hexandra*

*Equisetum variegatum*

*Euphorbia portlandica*

*Fritillaria meleagris*

*Fumaria purpurea*

*Gentiana pneumonanthe*

*Hieracium vagense*

*Hippophae rhamnoides*

*Hordelymus europaeus*

*Impatiens noli-tangere*

*Lepidium latifolium*

*Limonium celticum* ssp *britannicum*

*Limosella aquatica*

*Medicago sativa* ssp *falcata*

*Puccinellia rupestris*

*Ribes alpinum*

*Silene gallica*

*Thelypteris palustris*

*Vaccinium x intermedium*

*Verbascum lychnitis*

*Verbascum virgatum*

*Vicia lutea*

## Locally Rare

*Allium oleraceum*

*Allium scorodoprasum*

*Anacamptis pyramidalis*

*Arabis hirsuta*

*Asplenium marinum*

*Atriplex laciniata*

*Brachypodium pinnatum*

*Bromopsis erecta*

*Bromus commutatus*

*Bromus racemosus*

*Bromus secalinus*

*Carex acuta*

*Carex hostiana*

*Carex lasiocarpa*

*Carex limosa*

*Carex muricata* ssp *lamprocarpa*

*Carex viridula* ssp *viridula*

*Carlina vulgaris*

*Centaureum pulchellum*

*Cerastium arvense*

*Circaea x intermedia*

*Cirsium dissectum*

*Cirsium heterophyllum*

*Clinopodium ascendens*

*Crambe maritima*

*Crithmum maritimum*

*Cynoglossum officinale*

*Dactylorhiza incarnata*

*Daphne laureola*

*Dipsacus pilosus*

*Drosera intermedia*

*Eleocharis multicaulis*

*Eleocharis quinqueflora*

*Eleocharis uniglumis*

*Eleogeton fluitans*

*Epipactis palustris*

*Equisetum hyemale*

*Eryngium maritimum*

*Euphorbia exigua*

*Filago minima*

*Filago vulgaris*

*Gagea lutea*

*Glaucium flavum*

*Hippuris vulgaris*

*Huperzia selago*

*Hyoscyamus niger*

*Hypericum elodes*

*Juncus compressus*

*Lathyrus nissolia*

*Limonium vulgare*

*Linum bienne*

*Lycopodium clavatum*

*Meum athamanticum*

*Myosurus minimus*

*Myriophyllum alterniflorum*

*Nuphar pumila*/x *spenneriana*

*Orobanche hederaceae*

*Paris quadrifolia*

*Persicaria minor*

*Phegopteris connectilis*

*Platanthera chlorantha*

*Polygonum oxyspermum* ssp *raii*

*Polygonum rurivagum*

*Potamogeton alpinus*

*Potamogeton lucens*

*Potamogeton pusillus*

*Potamogeton trichoides*

*Pyrola minor*

*Pyrola rotundifolia* ssp *maritima*

*Ranunculus baudotii*

*Ranunculus circinatus*

*Rhynchospora alba*

*Rosa agrestis*

*Rosa micrantha*

*Rosa mollis*

*Rosa x hibernica*

*Rosa x margerisonii*

*Rubus chamaemorus*

*Rumex longifolius*

*Rumex pseudoalpinus*

*Ruppia maritima*

*Sagina nodosa*

*Salix triandra*

*Salsola kali*

*Salvia verbenaca*

*Saxifraga tridactylites*

*Scleranthus annuus*

*Scutellaria minor*

*Sedum anglicum*

*Serratula tinctoria*

*Silene uniflora*

*Sorbus torminalis*

*Spergularia rupicola*

*Teesdalia nudicaulis*

*Thalictrum minus*

*Thymus polytrichus* ssp *britannicus*

*Trifolium ornithopodioides*

*Utricularia minor*

*Utricularia vulgaris*

*Vicia lathyroides*

*Vicia sylvatica*

*Viola canina* ssp *canina*

*Vulpia fasciculata*

*Wahlenbergia hederacea*

x *Agropogon littoralis*

x *Festulopia hubbardii*



occurs on the bank of the R Mersey in SJ8191 but presumably not native.

*Asplenium trichomanes ssp pachyrachis* (H. Christ) Lovis & Reichst. NT  
Lobed Maidenhair Spleenwort 4

This is a fern of calcareous rocks growing on overhangs where it is sheltered from direct rain. Its main stronghold is the Wye Valley, but the populations discovered in 1997 at Maiden Castle, Bickerton (SJ4952) and Bickerton Hill (SJ5053) where it grows on calcareous sandstone are, with over 200 plants, possibly the largest in Britain. The sites belong to the National Trust. 4 plants were found on Raw Head (SJ5954) in 2006, and 60 plants on Bulkeley Hill (SJ5255) in 2009.

*Asplenium marinum* L. 2  
Sea Spleenwort

A plant of rock crevices usually close to the sea and sea-sprayed. It has long been known from Hilbre Island where it grows in abundance on the east cliffs. A colony at New Brighton (SJ2994) was found in 1995 which matches de Tabley's "entrance of the Mersey". It is no longer to be found at Bromborough. or West Kirby.

*Atriplex laciniata* L. 2  
Frosted Orache

Recorded from Red Rocks (SJ2088) and Leasowe (SJ2390).

*Baldellia ranunculoides* (L.) Parl. NT  
Lesser Water-plantain 4

De Tabley lists Tatton, Baguley Moor, Timperley, Acton Grange, Tabley, Moore, Tarvin, Over, Hatchmere, Dunham, Fishpool, Plemstall, Lache, Nantwich, Wybunbury, Dodding-ton,, Middlewich and many sites on the Wirral. Sadly today, it has only been found at Thurstaston (SJ2383), Irby (SJ2685), Kings Marsh (SJ4355) and Bradley Green (SJ5045) in recent years and its survival is precarious.

*Barbarea stricta* Andrz. Probably introduced

*Blysmus rufus* (Huds.) Link 1  
Saltmarsh Flat-sedge

This species is locally frequent in salt-marshes and dune-slacks in the northern two thirds of the British Isles. The site at Red Rocks Reserve appears lost due to drying out and competition from ranker vegetation. It was reported from near Burton Point but the record has not been confirmed. In 2011 a good colony was found at Red Rocks in the developing saltmarsh with a further site found later.

*Brachypodium pinnatum* (L.) P. Beauv. 3  
Tor-grass

A tall grass in chalk and limestone grassland mainly in central, south and eastern Britain. It also occurs in basic grassland elsewhere. It was discovered in two sites in 2000: a canalbank

at Coole Pilate (SJ6446) but not seen since and at Parkgate (SJ2 8). In 2012 a large colony was found near Lamaload Reservoir (SJ9775) in apparently native vegetation.

*Bromopsis erecta* (Huds.) Fourr. 2  
Upright Brome

Another grass of chalk and limestone and other dry base-rich soils. De Tabley reported it from the Reddish Valley and near Congleton, but it was believed lost until 2 colonies were found on canal banks with one plant at Stoneley Green (SJ6152) and several clumps at Baddington (SJ6448). However, this and *Brachypodium pinnatum* seem likely to be introductions.

*Bromus commutatus* Schrad. 14  
Meadow Brome

De Tabley gives many localities for this species, but seems uncertain about its true distribution. It has recently reappeared in arable fields in SJ7773 & 6074 and by the outflow from a brine well in SJ6972, and is reported from Meols. In 2006, it was found in several arable fields on Frodsham Marshes and an area of rough grassland (SJ4977 and SJ5077) where it might be native. It is still increasing as a crop contaminant.

*Bromus hordeaceus* L. ssp *thominei* (Hardouin) Braun-Blanq.

*Bromus lepidus* Holmb. 1  
Slender Bromes

Although given several sites in Newton (1971), the existence of *B. x pseudothominei* was not generally known at the time and that is the only taxon detected recently. *Bromus lepidus* has been reported from Meols.

*Bromus racemosus* L. 3  
Smooth Brome

A similar situation to *B. commutatus*. The taxonomy of these species is still a matter of dispute. Recorded in SJ2885 in 2003 and in Meols. In 2007 it was found in plenty in native grassland at Belgrave (SJ3861).

*Bromus secalinus* L. 16  
Rye Brome

A cereal weed rcoreded by de Tabley for Broadheath, Moberley, Marston, and Mollington, but like most cornfield weeds, thought long gone. However, as in other parts of the country, it has now returned in plenty in SJ6979, 6981, 6982, 7082, 7175, 4977, 5077, 5178, & 6779 and cannot currently be considered scarce.

*Bupleurum tenuissimum* L. Vulnerable  
Slender Hare's-ear Extinct

Previously known from the Dee bank and by Bromborough Pool where the last record was in 1927. Its recent rediscovery on the Flintshire side of the Dee gives hope that it may yet be refound in Cheshire as it is easily overlooked.

- Calamagrostis stricta* (Timm) Koeler Vulnerable  
Narrow Small-reed 1  
A tufted perennial with slender creeping rhizomes which may now be nationally red data due to drainage of some sites. It has only been seen in 8 sites nationally since 1987. It occurs on the fringes of Oakmere (SJ5767).
- Calystegia sepium* ssp *roseata* Brummitt Scarce  
Sea-side Hedge Bindweed 5  
A west coast species which has been detected at Astmoor (SJ5384) and Norton Marsh (SJ5584) where it is abundant and Stanlow SJ4276 on the Mersey Estuary, Moore NR SJ5785 and Frodsham Marsh (SJ5078).
- Calystegia soldanella* (L.) R.Br.  
Sea Bindweed Extinct  
Used to be found on the shore at West Kirby, New Brighton, Wallasey, but rare even in de Tabley's day and gone by 1924.
- Carex acuta* L.  
Slender Tufted-Sedge 4  
A diminishing species only seen recently in SJ45, at Davenham (SJ6470), Caughall (SJ4070) and Upton Grange (SJ4269).
- Carex diandra* Schrank NT  
Lesser Tussock-sedge Extinct  
This sedge has now gone from its only recent site in SJ65.
- Carex dioica* L.  
Dioecious Sedge Extinct  
Records in de Tabley from Werneth, Staley Holmes, Baguley Moor, Hale Moss, Knutsford Moor, Hale Moss and Wybunbury. It could linger in the hills.
- Carex elongata* L.  
Elongated Sedge Scarce 1  
This is a plant of lowland ponds, canal sides and wet woods which used to occur at Staley, Rostherne, Holford Mill, Over, Bebbington Heath, Lower Peover and, more recently, by the canal in the Wrenbury area. It was last seen by a pond at Wrenbury where its current status is unknown. A good colony was found in 2007 at SJ4160.
- Carex hostiana* DC.  
Tawny Sedge 3/4  
A sedge of wet flushes and marshy ground tending towards base rich, previously found at Staley, Baguley Moor, Stretton Moss and Raby. It is now confined to a good colony at Swallowdale (SJ9366) and a few plants on Arnfield Moor (SK0298). A few plants were found in 1996 in Goodmoor Rough (SJ5046), an SBI, but damage to the habitat makes its survival uncertain here. One clump was found in Kingsley CP (SJ5473) in 2001.
- Carex lasiocarpa* Ehrh.  
Slender Sedge 1  
De Tabley lists Stretton Moss, Oakmere, Achmere, Hatchmere, and Brookhouse Moss. In the 1970s, it was claimed for Black Lake, Delamere (SJ5370), but recent searches have not revealed it. It is not easy to detect even when flowering, but remarkably was found by Iain Diack in leaf at Wybunbury (SJ6950) in 2008. It flowered in 2011 after scrub clearance.
- Carex limosa* L.  
Bog Sedge 1  
A sedge of very wet bogs mainly in NW England, Wales and Scotland. It still occurs in the middle of Wybunbury Moss NNR (SJ6950) in very wet sphagnum where recent management to maintain the water level should favour it.
- Carex muricata* L. ssp *pairae* (F.W.Schultz) Celak.  
Prickly Sedge 3  
This species was added to the Cheshire flora in 1980 when found at Burton (SJ3074) where it grows with *C. spicata*. It was relocated in 2000. In 2011, 2 plants were found at Bradley Green after scrub clearance (SJ5045) and 1 in a reserve at Mobberley (SJ7879).
- Carex viridula* ssp. *brachyrrhyncha* (Celak) B. Schmid  
Long-bracted Yellow-sedge Extinct  
The taxonomy of the yellow-sedges was not clear in de Tabley's day, so although he lists many records, it is not certain that this was ever a Cheshire plant.
- Carex viridula* ssp. *viridula* Michx.  
Small-fruited Yellow-sedge 1  
This plant has probably only ever occurred in damp sandy hollows on the coast and only lingers in one such place at Moreton (SJ2491) where rumours of its extinction (Newton 1990) were proved unfounded.
- Carlina vulgaris* L.  
Carline Thistle Extinct?  
De Tabley reports this yellow thistle as not uncommon on the sandhills. Recently, it occurred in sandy ground on Newchurch Common (SJ6068) but has not been seen recently. The record in de Tabley for Kerridge Hill seems unlikely.
- Centaurium littorale* (Turner ex Sm.) Gilmour  
Seaside Centaury 1  
De Tabley knew this sparingly on the north Wirral coast, and mentions Hoylake and Hilbre. It is easily confused with Common

Centaury and no convincing specimens had been seen until it was found on an old limebed at Clifton (SJ5279) in 2011.

*Centaureum pulchellum* (Sw.) Druce

Lesser Centaury

1

This species shares the habitat of the small-fruited yellow-sedge and only survives in small quantity at Moreton (SJ2491). In 2013 it was found on the limebed at Clifton (SJ5279).

*Cerastium arvense* L.

Field Mouse-ear

3

The well-known colonies of this plant on Hilbre Island still survive. The colony found in 1991 in Delamere (SJ5669) on a sandy lanebank is struggling, but a large colony on the edge of the Moore NR (SJ5785) was found in 1999 and looked safer, but is now hard to find. Other old locations at Overton, West Kirby and Caldý appear lost.

*Chenopodium bonus-henricus* L. Vulnerable  
Good King Henry

1

Atlas 2000 treats this as an archaeophyte from Roman times. Although de Tabley had many records, recently it has only been seen in three areas where it was always close to habitation, reflecting its past culinary use: of Arnfield (SK0198), Disley (SJ9884), Kettlethulme (SJ9979), and Arnfield (SK0096), only the last was found in 2010.

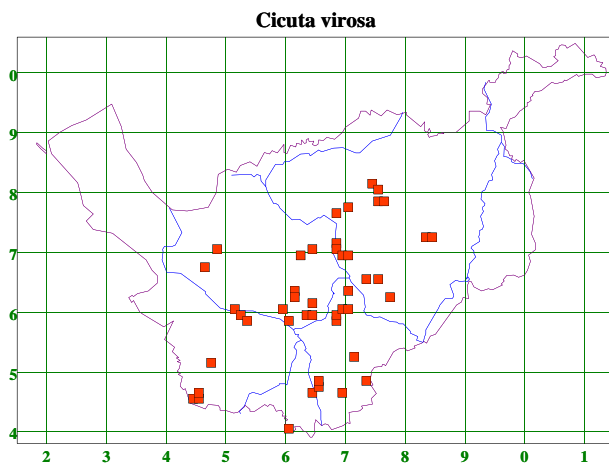
*Cicuta virosa* L.

Cowbane

Scarce

Common(37)

Cowbane is a plant of ponds and mere fringes occurring mainly in East Anglia, Central Scotland and the Shropshire/Cheshire border. Cheshire holds the biggest population of any county. Although poisonous to cattle, large doses are needed and the plants are often grazed with no apparent ill effects. The main threat is through shading and loss of ponds.



*Circaea x intermedia* Ehrh.

Upland Enchanter's-nightshade

3

Recorded from Reddish Vale, Bredbury Wood, Marple, Disley, Gatley, Cotterill, Bowdon, Ashley, and Apethorne Wood, Hyde in de Tabley, but only found in Cotterill Clough

(SJ8083) by 1971. Since then it has been found in Norbury Hollow near Disley (SJ9485) and at Wrinehill (SJ7444). A colony in imported stones at Green Shack (SJ9876) has probably died out by now.

*Cirsium dissectum* (L.) Hill

Meadow Thistle

1

A plant of wet peaty soils not known in Cheshire until the 1960s when it was found in the fields by Quoisley Meres (SJ5445). It was still present in 1991 when ca 6 plants were seen. Records from Norbury Mere remain unconfirmed.

*Cirsium eriophorum* (L.) Scop.

Woolly-headed Thistle

Extinct

De Tabley gives one old record from Yatehouse Green (SJ7068), perhaps an introduction.

*Cirsium heterophyllum* (L.) Hill

Melancholy Thistle

2

Only one native site for this thistle, here at the southern end of its British range, was detected in the Flora survey this being in the Macclesfield Forest area, but it has not been refound. De Tabley gave it for Staley Bridge and the Goyt Valley. One plant was found by a footpath in Marple, but was presumably an escape. A colony at Trentabank reservoir is an introduction.

*Clinopodium acinos* (L.) Kunze

Basil Thyme

Vulnerable

Extinct

De Tabley gives it from Bowdon and Chester, but doubts its nativity.

*Clinopodium ascendens* (Jord.) Samp.

Common Calamint

3

Of many locations in de Tabley's Flora, only one, on a sandstone cliff at Saughton (SJ4461), was found in the 1960s and still thrives. It has since been found at Claverton (SJ4163) in 1988. A few plants opposite a cottage in Peckforton (SJ5358) are presumably introduced. A few small non-flowering plants in a roadside cart rut at Bradley are thought to be this species.

*Coeloglossum viride* (L.) Hartm.

Frog Orchid

Vulnerable

Extinct

Once found at Staley Wood, Hollingworth, Woodend, Ringway, Grange Hill, Liscard Vale, Bidston, Broxton, Duckington, and Malpas. The record in Newton (1990) is in VC57.

*Coincya monensis* (L.) Greuter & Burdet *ssp. monensis*

Isle of Man Cabbage

Scarce

2

The species is endemic to the British Isles and occurs in only 33 hectads nationally, mainly on the coasts surrounding the Isle of Man. In Cheshire it is still to be found in two sites: Leasowe dunes (SJ2792) and Wallasey golf-course (SJ2893) as in de Tabley. Ssp

cheiranthos from SW Europe occurs as an introduction as at New Ferry and Birkenhead.

*Colchicum autumnale* L.

Meadow Saffron 1

De Tabley records this from Staley, Edge and Withington, but was not convinced it was native. One plant, probably this species, was found on a wood edge in 2010 in SJ6076 but is likely to be introduced.

*Cotula coronopifolia* L.

Buttonweed 2

Although only an alien, Buttonweed has been a feature of damp areas behind the sea-wall at Leasowe, to where it escaped from Leasowe Castle, since 1885 and efforts are made to conserve it. It has recently been seen in SJ2591 and also on Frodsham Marsh (SJ4878).

*Crambe maritima* L.

Sea-kale 1

Not mentioned in de Tabley or Newton, although there is a pre-1930 record in the 1963 Atlas. The coast lacked the right habitat until rocky defences were created and in 1995 a seedling was found at Thurstaston (SJ2482) which flowered in 1998. In 2000, a total of 6 plants were noted.

*Crithmum maritimum* L.

Rock Samphire 2

Not recorded until 1980, this plant of maritime rocks was a welcome addition to the Cheshire flora. It still survives at Red Rocks (SJ2088) and has recently been detected at Caldly (SJ2285). It is rumoured that seeds were scattered here which throws its nativity into question.

*Cryptogramma crispa* (L.) R.Br. ex Hook

Parsley Fern Extinct

De Tabley gives Tegg's Nose, Macclesfield, Staleybridge and Woodhead where it may yet be rediscovered.

*Cynoglossum officinale* L.

Common Hound's-tongue 1-2

Occurs in varying numbers on the sand-dunes at Leasowe and Wallasey where de Tabley recorded it as common.

*Dactylorhiza incarnata* (L.) So<sup>^</sup>

Early Marsh-orchid ?

Only recorded for Northwich lime beds as ssp *coccinea* in Newton (1971) and lost under a rubbish dump since. Newton (1990) gives SJ5279 for this ssp in 1990, and SJ7391 in 1983, Red Rocks (SJ2088) in 1972 and 1982, and Runcorn (SJ5383) in 1990 for ssp *incarnata*. A possible ssp *pulchella* was seen in SJ5144 in 1995, but needs confirmation. The confused taxonomy of the genus makes older records unreliable.

*Daphne laureola* L.

Spurge Laurel 3

A shrub growing in calcareous or clayey woodland which is locally frequent in England and Wales, but with only one site in Cheshire at Giant's Castle, Styal Woods (SJ8283) where 36 plants were counted in 1999 growing with *Tilia cordata*. One plant was found in SJ9694 in 2000 and 2 in a hedge in Threapwood (SJ4345) in 2006. Formerly seen at Cotterill Clough, Bellaire Wood and round Chester.

*Dianthus deltoides* L.

Maiden Pink NT Extinct

This used to grow in several places on the N Wirral such as West Kirby, Wallasey, and New Brighton, but by the time of the 1971 Flora, it was confined to a single location on a fragment of dune at Hoylake. It has now been built upon. It occasionally appears as a short-lived introduction as at Stamford Bridge, Northwich and Brinnington.

*Dipsacus pilosus* L.

Small Teasel 5

De Tabley only records this from Stockport, Cotterill Clough, Aston and Crewe Hill and Newton (1971) adds 2 more sites. It is still present at Crewe Hill (SJ4252), Aston (SJ5776), Wimboldsley (SJ6763) and Coxbank (SJ6542). A new colony in SJ6444 was found in 2010.

*Drosera anglica* L.

Great Sundew NT Extinct

Once a feature of many mosses (Lindow, Stretton, Carrington, Oakmere, Hatchmere, Wybunbury, and near Holmes Chapel), this insectivorous plant seems to have last been recorded in 1918 at Abbott's Moss.

*Drosera intermedia* Hayne

Oblong-leaved Sundew 1

In the past, this was found on many of the county's mosses. De Tabley gives Lindow Common, Carrington Moss, Baguley Moor, Knutsford Moor, Delamere, Oakmere, Hatchmere, Newchurch Common, Bidston Heath, Oxton Heath, Frankby Heath and Wybunbury Moss. By the 1960s it was confined to a small area of Thurstaston Common (SJ2484) and was feared lost after a series of dry years, but a few plants reappeared in 1998 where their survival is precarious. It might survive in the less accessible parts of the wetter mosses.

*Dryopteris cristata* (L.) A. Gray

Crested Buckler-fern CE Extinct

Only found on Wybunbury Moss in de Tabley's day, having been exterminated at Hatchmere by collectors.

*Elatine hexandra* (Lapierre) DC.

Six-stamened Waterwort 1

This diminutive water plant was rediscovered in 1980 in Mere Mere (SJ7381) where it was first recorded prior to 1833. Newton

(1991) comments that the water quality was pure and clear in 1981, but in 1996, although the plant survived, the water was full of algae, presumably caused by fertiliser run-off from the adjacent golf-course.

*Eleocharis multicaulis* (Sm.) Desv.  
Many-stalked Spike-rush 2

An easily overlooked plant still to be found in a bog pool near Nunsmere (SJ5969). It was seen on Thurstaston Common in 1977 where drying of the habitat may have affected it. De Tabley records it as not uncommon in the right habitat and lists Eaton Moss, Stretton Moss, Oakmere, Newchurch Common, the Fishpool, Hatchmere, Frankby, Oxton, and Heswall Heath, but drainage has eliminated many of these sites.

*Eleocharis quinqueflora* (Hartmann) O. Schwarz.  
Few-flowered Spike-rush 2

As with *E. multicaulis*, this species has been much diminished due to habitat loss. Of de Tabley's sites at Hale, Tranmere, Heswall, Raby, Wallasey, and Lower Peover, none remain and it has only been seen recently in damp grassland in the Leasowe, Moreton area (SJ2492 and 2591). A site found at Hatchmere (SJ5372) in 1987 is now overgrown and the survival of the species there is in doubt. Ralph Goodchild reports it from Thurstaston Common.

*Eleocharis uniglumis* (Link) Schult  
Slender Spike-rush 1

Only seen recently (1995) in a wet field at Aston (SJ5576), but probably still present in suitable places on the Wirral.

*Eleogiton fluitans* (L.) Link  
Floating Club-rush 6

A plant of still water which can vary in quantity depending on conditions. Recently recorded from Thurstaston (SJ2383) in 1987, Sound Common (SJ6148) in 1993, Capenhurst (SJ3773) in 1998, Rock Savage (SJ5080) in 2000, and Shocklach (SJ4448) and Bradfield Green (SJ6959) in 2005.

*Epipactis palustris* (L.) Crantz  
Marsh Helleborine 3

This spectacular orchid has never been common in Cheshire. De Tabley has a few sites in the east, but it was mostly on the Wirral as at New Brighton, and Leasowe. Now it is confined to the man-made habitat of lime-beds where it is currently flourishing at Marston (SJ6674), Rock Savage (SJ5379) and Moore (SJ5785). If these sites scrub over and dry out it will inevitably be lost there too. The site at Hatherton (SJ64) appears lost through degradation of the habitat caused by cattle.

*Epipactis phyllanthes* G.E.Sm.  
Drooping Helleborine Extinct

Reported from an oakwood at Hooton in 1985.

*Equisetum hyemale* L.  
Rough Horsetail 1

A plant of shady places where moving water below the surface keeps the ground moist. In the past, it was to be found at Arden, Over, and perhaps along the Dee shore. A specimen in LIV came from near Parkgate. What was believed to be this at Red Rocks is now in doubt due to confusion with *E. x meridionale*. In 1989, a small colony was found near Church Minshull (SJ6562), thus restoring the plant to the Cheshire list. It still survives.

*Equisetum variegatum* Schleich. ex F. Weber & D. Mohr  
Variegated Horsetail Scarce 2

May still occur where it has been long known in dune-slacks at Hoyle (SJ2087) and Wallasey (SJ2893) in a few places where the habitat still survives, but probably always an error. (see below).

*Equisetum x meridionale* (Milde) Chiov. Rare 4

A decision by Peter Jepson to grow *E. x meridionale* from Anglesey next to *E. x trachyodon* from Wirral to see how they differed, produced the unexpected result that they were the same. It is now known that all plants previously recorded from the Wirral as *x trachyodon* are, in fact, *x meridionale* and are considered to be of ancient origin. De Tabley has them as *E. variegatum var arenarium* and records it all along the north and west dunes system which is now much reduced by building. This is the first and only known site for it in England. I suspect that all records for *E. variegatum*, *x trachyodon* and probably *E. hyemale* from the coast refer to *E. x meridionale*.

*Equisetum x trachyodon* A. Braun  
MacKay's Horsetail Error 3

This hybrid at Red Rocks (SJ2087) was first recorded in 1979, the first record for Cheshire. It has now been redetermined as *E. x meridionale*, a taxon understandably not considered at the time! The plant is subject to a local BAP.

*Erodium lebelii* Jord.  
Sticky Stork's-bill Scarce 2

First recorded from the dunes at Leasowe (SJ2491) in 1995 and again at Red Rocks (SJ2087) in 1996.

*Eryngium maritimum* L.  
Sea Holly 3

Still to be found on the sand-dunes but not as much as formerly. Most is at Red Rocks (SJ2087) with smaller numbers at Thurstaston (SJ2482) and Leasowe (SJ2792).

*Euphorbia exigua* L.  
Dwarf Spurge NT 1

Found in 2000 to be established as a weed in Ness Gardens (SJ3075)



<i>Euphorbia portlandica</i> Portland Spurge	3	<i>Fumaria purpurea</i> Pugsl. Purple Ramping-fumitory	Scarce Rare casual
This species is now to be found at Red Rocks (SJ2087), Moreton (SJ2491) and Leasowe (SJ2792).		Last recorded in 1982 by the road through the dunes (SJ2993), but only of casual appearance in Cheshire. <i>Fumaria capreolata</i> and <i>F. bastardii</i> are of similar sporadic occurrence, though not as rarely.	
<i>Festuca altissima</i> All. Wood Fescue		<i>Galeopsis angustifolia</i> Ehrh. ex Hoffm. Red Hemp-nettle	CE Extinct
Included in Newton (1970), but the site is in VC57		Previously a rare cornfield weed at Mow Cop and casual at Neston.	
<i>Festuca rubra</i> ssp <i>juncea</i> (Hack.) K.Richt. A Red Fescue	2	<i>Gagea lutea</i> (L.) Ker Gawler Yellow Star-of-Bethlehem	1
A plant of maritime rocks, so far detected at Burton Point (SJ3073) and Red Rocks (SJ2088) but probably elsewhere along the coast.		Appearing native in one site at Kidnal (SJ4749) where over 100 plants grow on a wooded bank. It has occurred as a garden escape elsewhere.	
<i>xFestulpia hubbardii</i> Hybrid Vulpia	Scarce 1	<i>Genista anglica</i> L. Petty Whin	NT Extinct
A recently discovered taxon which only occurs on sand-dunes at Leasowe (SJ2792). It may yet arise at Hoylake where <i>Vulpia fasciculata</i> is now flourishing.		Once found occasionally on heaths as at Staley Brushes, Baguley, Manley, Horton, Wybunbury, Rudhaeth, and Bidston, Brimstage, Eastham, Heswall, etc on the Wirral. Last seen 1943 near Ness.	
<i>Filago minima</i> (Sm.) Pers. Small Cudweed	2	<i>Gentiana pneumonanthe</i> L. Marsh Gentian	Scarce Extinct
This is a plant found in barish places on sandy soils which used to be widespread, if not common in Cheshire. De Tabley cites 22 locations. It was recorded in 1927 at Delamere and not again until 1991 when it was found in a disused sandpit at Wybunbury (SJ7049). A further colony was found in another old sandpit at Mouldsworth (SJ5170) in 1997. Now abundant on Moore NR.		This striking flower, though described as rare in de Tabley, used to occur on many wet heaths. (Lindow Common, Baguley Moor, Bartington Heath, Runcorn Moor, Parkgate, Bidston, Heswall, Tranmere, Oxton, Thurstaston, and Rudheath). Was only to be found on Oxton Heath and Thurstaston Common in the 1990's but now lost from all sites probably due to drying habitats.	
<i>Filago vulgaris</i> Lam. Common Cudweed	NT 3	<i>Gentianella campestris</i> (L.) Börner Field Gentian	Vulnerable Extinct
This cudweed was rare even to de Tabley who records it mainly from Delamere and the north Wirral. It too was last recorded in 1927. It was found on the site of a demolished building in Macclesfield (SJ9173) in 1996 where it was assumed to be introduced and was built over soon after. It was seen in set-aside at Warburton (SJ9089) in 1998 but did not survive. The discovery of a large colony in the Moore NR (SJ5785) in 2000 after 2 plants had been seen on the adjacent roadbank in 1998, was presumably a native resurgence and is still spreading. In 2002 a small colony was found on a sandy bank by Westlow Mere, Congleton (SJ856643), a flooded sand-pit, presumably also native seed regenerating. In 2007, it was found on Newchurch Common (SJ6069). There are several casual records.		A past resident of grassland at Staley Hall, Staleybridge, Werneth Low, Tatton, Hoylake, Leasowe and Wallasey.	
		<i>Geranium columbinum</i> L. Long-stalked Crane's-bill	Extinct
		Previously known from the Altrincham area, in Delamere area and round Heswall and Bidston. Last recorded in 1916 from Burton Point.	
		<i>Geum x intermedium</i> Ehrh. Hybrid Avens	?
		Recorded from Mobberley in 1873 and Wybunbury in 1968, but not since. <i>G. rivale</i> , the rarer parent is now reduced to 8 sites.	
<i>Fritillaria meleagris</i> L. Fritillary	Vulnerable Introduced(2)	<i>Glaucium flavum</i> Crantz Yellow Horned-poppy	1
Two plants, one white, one purple, were found in a damp pasture at Hassall Green (SJ7757) in 1993, but are most unlikely to be native. Introduced on the Middlewood Way.		As Cheshire lacks suitable shingle, the appearance of this species is usually short-lived and it was last reported in 1988 from	

between Caldby and Thurstsaston. Still there in 200 and at Wal-lasey in 2004. It used to be more common along the Dee.

*Gnaphalium sylvaticum* L.                      Endangered  
Heath Cudweed                                      Extinct

This species has not been recorded since the last two sites at Sandiway (SJ6270) and Mouldsworth (SJ5170) were lost. De Tabley listed at least 23 sites. It is a plant of heaths and sandy areas which has declined dramatically nationally. A few plants were found as a casual in SJ7888 in 2010.

*Groenlandica densa* (L.) Fourr.              Vulnerable  
Opposite-leaved Pondweed                      Extinct  
An 1884 specimen from Delamere was determined as this by J. E. Dandy.

*Gymnocarpium dryopteris* (L.) Newman  
Oak Fern    Extinct

Once found on walls at Middlewich and Ellesmere Port and in natural habitats at Staleybridge, Arncroft Wood, Bredbury, Marple, Morley, Errwood, Goyt, and Alderley Edge but not found recently.

*Hammarbya paludosa* (L.) Kunze  
Bog Orchid    Extinct

De Tabley did not know this in Cheshire, but there was a record from Sink Moss in 1837 (see Newton 1970).

*Hieracium vagense* (Hanb.) Ley              Scarce  
A Hawkweed    1

This was recorded from a steep eroding river cliff in Coombes Clough, Crowden (SK0599) in 1980 det C West. Doubts have been cast on the determination as it is normally a plant of limestone rocks. A redetermination and check on the pH of the rock are desirable. A similar looking species was found in the same habitat at Arnfield (SK0298) in 1999 and awaits determination.

*Hippophae rhamnoides* L.                      Scarce  
Sea-buckthorn    Introduced

Although classified as scarce, sea-buckthorn as a native is confined to a few stretches of the east coast and its widespread occurrence in Cheshire is entirely as a result of planting.

*Hippuris vulgaris* L.  
Mare's-tail    2

Never common, this plant of shallow water is now only recorded recently from two sites; Capesthorpe (SJ8472) in 1989 and in 1997 from a lake at Moreton (SJ2490). De Tabley also knew it from Capesthorpe and in several places in N Wirral. Of the places given in Newton (1971), it was not refound at Plumley, Brereton or Frankby in the 1990s.

*Hordelymus europaeus* L.                      Scarce  
Wood Barley    2-3

De Tabley only records this handsome grass from Cotterill Clough (SJ8084) where it survives today thanks to efforts to divert the course of the new road constructed when Ringway runway 1 was extended. Newton (1971) also recorded it at Etherow in VC57 where its survival status is unknown and at Flood Brook Clough (SJ5380) where it has not been found recently. It was found at Giant's Castle, Styal (SJ8283) in 1992 in a well botanised spot and seems to be increasing, pointing to recent arrival.

*Huperzia selago* (L.) Bernh. Ex Schrank & C. Mart.  
Fir Clubmoss    1

Not seen since 1900 until one plant was found in the Goyt Valley (SJ9974) in 2005 but footpath work destroyed it in 2007. In 2012 it was found on the south of Shining Tor (SJ9872) by Peak Forest Rangers with at least 18 plants.

*Hyoscyamus niger* L.                              Vulnerable  
Henbane    Casual

This poisonous biennial herb has probably never been other than of casual occurrence in Cheshire. Newton (1971) gives Mouldsworth sand-quarry (SJ5170) and Newton (1991) lists Denhall, Runcorn docks and by the Ship Canal at Ellesmere Port. Seen in SJ4066 in 2003.

*Hypericum elodes* L.  
Marsh St John's-wort                                      2

From having been a feature of the wetter parts of mosses in de Tabley's day (he lists 17 sites), the plant declined and the last record was from Dunham on the Hill in 1925. However, following reclamation work at Shakerley Mere (SJ7371), it was re-found there in 1989 but not detected in 2007. In 1997 it was found by a pool at Willaston (SJ3476).

*Hypericum montanum* L.                              NT  
Pale St John's-wort    Extinct?

Only ever seen on the old railway at Lower Kinnerton (SJ3362) where it was barely surviving in 1987 and may now be gone.

*Hypochoeris glabra* L.                              Vulnerable  
Smooth Cat's-ear    Extinct

Only ever found in three places of which one at Bowdon was casual. In 1868 it was found by Beeston Castle, and in 1836-7, somewhere on the coast. Recent records are unconfirmed and doubtless errors.

*Hypopitys monotropa* Cranz                      Endangered  
Yellow Bird's-nest    1

Yellow Bird's-nest is a saprophyte living on the roots of trees which was last seen in an old tree nursery in 1992 in Sale (SJ8092). It has always been transient and was previously recorded from Hooton in 1964, gone by 1967. A good colony was found in 2006 at Marple (SJ9588) and still avoided threatened

development in 2008 and had spread to the nearby old railway in 2010 but may now have gone. A small colony was found in Anderton Nature Park in 2011 (SJ6575) and was much increased in 2012.

*Impatiens noli-tangere* L. Scarce  
Touch-me-not Balsam 2

A plant of damp woodland which is regarded as native only in the Lake District and mid-Wales. It was seen in Big Wood, Combermere (SJ5944) in 1995 and in Great Wood, Peover Superior (SJ7772) along the stream bank among unusual native vegetation and not near houses which seems different from de Tabley's Lower Peover station.

*Juncus compressus* Jacq. NT  
Round-headed Rush 1

First found by a pool by the canal at Middlewich in 1991 (SJ6966), but now has been built over. Found in 1999 Sale Ees (SJ7892) where it still occurs. Records on the Wirral were erroneous.

*Lathyrus nissolia* L. 14  
Grass Vetchling

Most occurrences of this elusive plant are from grass seed, eg Astmoor and Adswood, but it is sometimes established as at Wharton (SJ6568). Two locations seem possibly native as de Tabley claimed: a railway bank at Wardle (SJ6058) and a green lane at Caldecott (SJ4352) which is a good match for Wolley Dod's site near Stretton Hall.

*Lathyrus sylvestris* L. Extinct  
Narrow-leaved Everlasting-pea  
Recorded in Newton (1971) as native on the Weaver bank at Sutton, which matches the record de Tabley rejected, but since lost.

*Ledum palustre* L. ssp *groenlandicum* (Oeder) Hultén  
Labrador Tea 1

This species is no longer regarded as a British native. Its only site in Cheshire at Danes Moss, Macclesfield is a re-introduction of an introduction!

*Lepidium latifolium* L. Scarce  
Dittander 2

A culinary fore-runner of horse-radish which is native mainly in the south east, but only introduced in Cheshire. A good colony in the old sidings at Dewsnap, Dukinfield (SJ9375) was lost along with many other notable plants when the site was developed. It still survives in Chester (SJ4067), but its fate at a long-known site in Meols is unknown. A remarkable new colony was spotted on the central reservation of the M56 in 2010 at SJ6884.

*Limonium celticum* ssp *britannicum* Ingr. Scarce

Rock Sea-lavender 1

The colony on Hilbre Island (SJ1887) continues to thrive despite taxonomic sinking feelings!

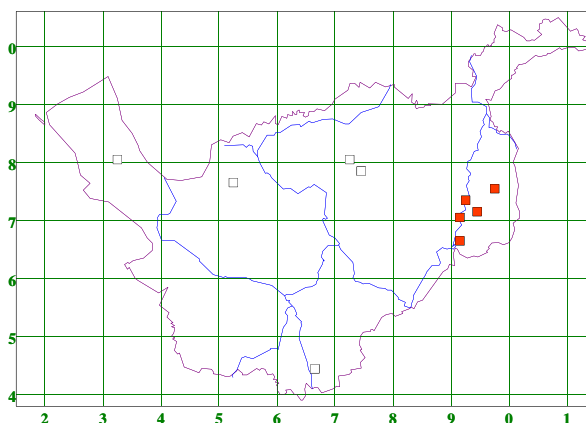
*Limonium vulgare* Mill. 1  
Common Sea-lavender

This salt-marsh plant has never been common in Cheshire and was reduced to one site at Bromborough in de Tabley's day where the last record was in 1924. This site was refound in 2003.

*Limosella aquatica* L. Scarce  
Mudwort 5

A plant of seasonally exposed mud mainly occurring by old reservoirs in the east, although de Tabley gives it from Raby and Knutsford. It is of sporadic appearance and has recently been increasing, having been seen at Macclesfield, Lamaload, Bosley, Sutton and Bottoms reservoirs.

**Limosella aquatica**



*Linum bienne* Mill. 3  
Pale Flax

De Tabley recorded this inconspicuous plant from 4 or 5 places in the Wirral, but it was believed lost until found on the river bank near Frodsham in 1989 (SJ5279) where it thrives. It has since been found on the bank of R. Birkett at Leasowe (SJ2791) in 1997 and in a (then) neglected lawn in Gayton (SJ2880) in 1992 where it was believed native, but has not been seen since.

*Lithospermum arvense* L. Extinct  
Field Gromwell

Mainly a cornfield weed now no longer to be found. Recorded from Werneth, Mobberley, Bidston, and Egremont in de Tabley.

*Lotus glaber* Mill. 1  
Narrow-leaved Bird's-foot-trefoil

Found on waste ground at Bromborough (SJ3484) on 2000 but probably introduced.

*Luronium natans* (L.) Raf. Scarce  
Floating Water-plantain 2

A European endemic protected under WCA Schedule 8. Britain has some of the main populations where it occurs in lakes and canals. It used to be fairly common in Macclesfield and Peak Forest Canals, but is no longer to be seen since canal traffic increased. It was reported from the Trent & Mersey canal in 1994, but did not survive. In 1994, two large colonies were found on exposed mud at Bosley reservoir (SJ9266) where it may still be extant, but the site is now dominated by *Crassula helmsii*. A very small colony was seen in the canal in SJ9296 in 2012. In 2013 a small colony was found in a pool at Hollinworth in an apparently native site (SK0097).

*Lycopodiella inundata* (L.) Holub. Endangered  
Marsh Clubmoss Extinct

Lost from Cheshire as in most of England other than the New Forest. It was last recorded in Delamere in 1912, having been previously found at Lindow, Baguley, Bartington Heath, Oakmere, the Fish Pool, Delamere, Bidston, Thurstaston, and Oxtan.

*Lycopodium clavatum* L. 1  
Stag's-horn Clubmoss

The last known site at Brownlow Heath was destroyed by tipping in the 1970s. Historically, it was known from Delamere, Bromborough and several places in the eastern hills where one plant was found in Coombes Clough, Crowden (SK0599) in 1994 but since not relocated. It could occur elsewhere in the area.

*Marrubium vulgare* Scarce  
White Horehound Extinct

A few plants were found on sandstone rocks at Burton Point in 1972 where there was no reason to suggest an introduction. A clump survived in 1987, but the plant has not been seen since. Severe summer droughts may have killed it. Seen on a wall in Burton in 2013.

*Medicago sativa* L. ssp *falcata* (L.) Arcang. Scarce  
Sickle Medick 1

As a native, this species occurs only in E Anglia, but it is found widely as an introduction as on Hilbre Island (SJ1887) where a single clump occurs. It was originally claimed to be Narrow-leaved Bird's-foot-trefoil.

*Mentha pulegium* L. Endangered  
Pennyroyal 3

An increasingly rare native characteristically found on damp village greens in the New Forest. It used to occur in such places in S Cheshire until the late 19th C (Beam Heath, Nantwich, Hankelow Green and Audlem). Its current existence in Cheshire is from imported grass-seed suitable for damp ground. It is to be found at Eastham Ferry (SJ3681), Anderton Nature Park (SJ6575) where it forms spectacular swathes and Stapeley Grange (SJ6750). Introduced material is believed to be a genetically different form from the USA and is currently being studied.

*Meum athamanticum* Jacq. NT  
Spignel Extinct

A single plant of this species was an amazing 2005 discovery at Mow Cop (SJ8657) in typical upland pasture. The only record but no longer there.

*Moenchia erecta* (L.) P.Gaertn., B.Mey, & Scherb. Extinct  
Upright Chickweed

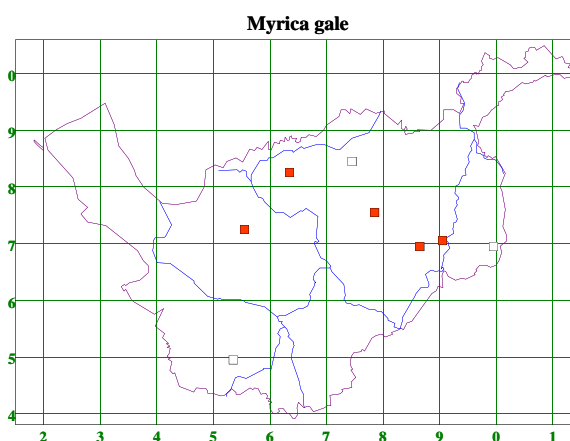
Only found at Bidston and Grange in de Tabley's time, having previously been found at Leasowe, New Brighton, New Ferry, Lower Bebbington, and Raby.

*Myosurus minimus* L. Vulnerable  
Mousetail 3

This inconspicuous member of the buttercup family, was believed extinct until refound in 1988 at Shocklach Green (SJ4248) where the numbers vary considerably depending on the season. In 1993, it was found in several places at Aldford (SJ4258) and in 2000 a few plants were found to have escaped to Pulford (SJ3958) from the well-known nearby colony in Wales. Now also SJ3958. De Tabley recorded it also from Vale Royal and Guilden Sutton.

*Myrica gale* L. 5  
Bog-myrtle

Surprisingly, this species does not seem to have changed much in abundance since, de Tabley's day. It is still found in his sites at Danes Moss (SJ9070), Stretton Moss (SJ6382), and Hatchmere (SJ5572), but not at Rostherne. The status of Newton's records from 54NW and 96NE is not known, but more recent colonies have been found at Ollerton (SJ7875) and Gawsforth (SJ8669). Several colonies hold only old plants with no sign of regeneration, the site being overgrown with trees and drying out.



*Myriophyllum alterniflorum* DC 4  
Alternate Water-milfoil

Still to be found in Bosley Reservoir (SJ9166) (but threatened by *Crassula helmsii*) and recorded from Taxal (SK0079) in 1996 and Disley (SJ9783) in 1995. Believed lost on Hilbre but re-found in 2007.

<i>Myriophyllum verticillatum</i> L. Whorled Water-milfoil	Extinct?	<i>Persicaria minor</i> (Hudson) Opiz Small Water-pepper	Vulnerable 3
Never common in Cheshire, this aquatic was apparently last known from Frodsham marshes where it was seen in 1985, but the extreme pollution of the waters by fertilizer seems likely to have finished it off.		De Tabley lists ca 15 sites, but Newton (1971) only has 2 of which one was only a casual introduction. The Tatton Park plants were last reported in 1985 and their fate is unknown. In 1991 it was found by Oakmere (SJ5767) and in 1994 good colonies were located by Trentabank Reservoir (SJ9671), but not seen in 2008.	
<i>Neottia cordata</i> (L.) Rich Lesser Twayblade	Extinct	<i>Phegopteris connectilis</i> (Michx.) Watt Beech Fern	3
<i>Nuphar pumila</i> (Timm)DC. Least Water-lily	Scarce 1	The only historical records not in the eastern hills were in Burleyhurst Wood, Wilmslow, and between Heswall Hill and Cloughton on the Wirral. It was not found at all during the 1971 Flora survey, but has since been found in three locations. In 1990 near Kettleshulme (SJ9089), in 1994 (and 2000) near Woodhead (SE0901) and by Fernlea reservoir (SK0176) in 1995. It is easily overlooked as it does not seem to form large colonies.	
Reported from Hatchmere (SJ5572) but needing absolute verification, and now thought to be <i>Nuphar x spenneriana</i> .			
<i>Orobanche hederæ</i> Duby Ivy Broomrape	1	<i>Pilosella x stolonifera</i> Hybrid Fox and Cubs	2
A colony was found on ssp helix in a neglected part of a garden at Gayton (SJ2880) in 2005 and is increasing. The only record for VC58.		Recorded in Newton from Plumley, but not seen there recently. In 2010 a colony was found in Sale (SJ7992). Also probably in SJ7155 in 2013.	
<i>Orobanche rapum-genistæ</i> Thuill. Greater Broomrape	NT Extinct	<i>Pilularia globulifera</i> L Pillwort	NT Extinct
A species much reduced nationally which de Tabley records for Staleybridge, Hill-cliff, Ince, Eastham, Edge and Congleton, but had no current location.		A nationally much reduced species due to loss of habitat which was last recorded from the Fishpool, Delamere. It had previously been found at Baguley, Mere, Oxton, Congleton Moss and Beam Heath, Nantwich.	
<i>Paris quadrifolia</i> L. Herb-Paris	1	<i>Pinguicula vulgaris</i> L. Common Butterwort	Extinct
A creeping herb found in moist base-rich woodland. It used to grow in woods on the Bollin, Rock Savage, Aston Park, Pickmere, Over, Wych, Lower Peover and Davenham in 19thC. Newton (1971) has it from SJ44 and SJ54 and in 1990 adds Darnhall (SJ6362), subsequently lost and Dutton Dene (SJ5977) where it still survives. It is easily overlooked and may still occur elsewhere.		Another victim of the destruction of boggy habitats. Frodsham, Thornton Hough, Thurstaston, and Raby were Wirral sites, long gone. Newton (1971) has one site at Swallowdale (SJ9366) but repeated searches have failed to refind it. It may hang on somewhere in the hills.	
<i>Parnassia palustris</i> L. Grass of Parnassus	Extinct	<i>Platanthera chlorantha</i> (Custer) Rchb. Greater Butterfly-orchid	NT 2
Once widespread though not common, by 1971 this attractive plant only grew in a base-rich flush at Hatherton (SJ64) where it has been trampled to death by cattle. A reported record from Disley has not been seen recently.		Once a feature of pastures in the north and east, this orchid has only been seen in two sites recently. De Tabley lists Marple Vale, Staleybridge, Wilmslow, Werneth, Alderley, Hollingworth, Mottram, Goyt Valley, Cotterill, Rostherne, Mobberley, Plumley, Holford and Over. Newton (1971) gives only 3 sites in upland meadows in SJ96, 97 and in SJ77 by Peover Brook. Plants found at Swettenham in 1987 have not reappeared recently after the site became overgrown. In 1989 it was found in the Wilmslow area where 2 spikes were seen in 1995. The most recent location was near Kettleshulme with 11 spikes in 1996.	
<i>Pedicularis palustris</i> L. Red-rattle	Extinct?	The presence of <i>P. bifolia</i> in Cheshire is unconfirmed due to confusion of the two species.	
This shared the same site and fate as <i>Parnassia palustris</i> where it was last seen in 1991. The location of the site in SJ65 given in Newton (1971) is unknown. De Tabley listed Baguley Moor, Hale Moss, Rostherne, Knutsford, Peckforton Mere, Hatchmere, West Kirby, Raby and Brookhouse Moss, most of which are much changed since then.			

<i>Polygonum oxyspermum</i> C.A.Mey. & Bunge ex Ledeb ssp <i>raii</i> (Bab.) D.A.Webb & Chater Ray's Knotgrass	?	De Tabley recorded it from Rostherne Mere, Achmere, Hatchmere, and Bidston Marsh. It was last recorded from Ledsham and Neston in 1956.
<i>Polygonum rurivagum</i> Jordan ex Boreau Cornfield Knotgrass	3	<i>Potamogeton lucens</i> L. Shining Pondweed
The occurrence of this species in Cheshire is generally as a casual introduced with grass seed, as at Carrington in 1996 and Handforth in 1997, but in 2000 it was found as an arable weed at Bradley (SJ5376) which is its more usual habitat in south and east Britain. It is increasingly common generally.		In de Tabley, Disley, Macclesfield Canal, Rostherne Mere, Dunham Park, Marston, Plumley and Lower Peover are given. Newton (1971) gives only the Macclesfield Canal, but it was refound in Dunham Massey (SJ7387) in 1994 and seen in the Trent & Mersey Canal (SJ47) in 1993.
<i>Polypodium cambricum</i> L. Southern Polypody	Extinct	<i>Potamogeton praelongus</i> Wulfen Long-stalked Pondweed
Recorded in the Fern Atlas for SJ97, but the record is an unlocalised historical one.		NT Extinct
<i>Polypodium x mantoniae</i> Rothm. & U.Schneid.		Only ever recorded in one place which was the Shropshire Union Canal at Quoisley in 1967 where it was first seen in 1947.
Recorded at Barnton (SJ2586)		<i>Potamogeton pusillus</i> L. Lesser Pondweed
<i>Potamogeton</i> species Pondweeds		4
Pondweeds have in general suffered a severe decline recently, mainly due to fertilizer run-off into ponds and meres and to the opening up of canals to leisure traffic. <i>P. natans</i> , <i>polygonifolius</i> , <i>berchtoldii</i> , <i>perfoliatus</i> and <i>pectinatus</i> are the only ones at all common, the latter being particularly pollution tolerant.		De Tabley sites Jackson's Boat, Hale Moss, Marston, Tabley, Darnhall, Frodsham, Helsby, Hatchmere, Beeston, Birkenhead, Hooton, Little Sutton, Malpas, Crewe, and Macclesfield Canal. Newton (1971) gives only Frodsham Marshes, and Newton (1990) adds Tatton in 1981. Since then there have been records from Mere Mere (SJ7381) in 1996, Newchurch Common (SJ6069) in 1998, Tatton Park (SJ7579) and Comber Mere (SJ5844) in 2006. It is an easily confused or overlooked species.
<i>Potamogeton alpinus</i> Balb. Red Pondweed	2	<i>Potamogeton trichoides</i> Cham. & Schldl. Hairlike Pondweed
Stated by de Tabley to be frequent in mid-Cheshire, but only seen in 11 sites by 1972, most of which were canals. Recently detected only at Dukinfield (SJ9396) in 1993 and Kettleholme (SJ9880) in 1998.		? Only recorded in the Peak Forest Canal at Apethorne in the 1960s and possibly in 1984. Another species hard to identify.
<i>Potamogeton coloratus</i> Hornem. Fen Pondweed	Scarce Extinct	<i>Pseudorchis albida</i> (L.) A.& D. Löve Small-white Orchid
Recorded in 1902 on Willey Moor (SJ54), but the site is now drained.		Vulnerable Extinct
<i>Potamogeton compressus</i> L. Grass-wrack Pondweed	Endangered Extinct	<i>Puccinellia rupestris</i> (With.) Fernald & Weath. Stiff Saltmarsh-grass
De Tabley did not consider this a Cheshire plant, but Newton (1971) found it in the Macclesfield and Peak Forest canals where it is no longer to be seen.		1 A plant of bare places at the edge of saltmarshes whose nearest known stations are on the Severn Estuary which makes the discovery of over 30 plants in a saline spring in Anderton Nature Park (SJ6575) quite remarkable, it being unlikely to be introduced. It has been recorded in similar habitats in Staffordshire. There are old records for the Mersey Estuary where it could still linger undetected.
<i>Potamogeton gramineus</i> L. Various-leaved Pondweed	Extinct	<i>Pyrola media</i> L. Intermediate Wintergreen
		Vulnerable Extinct

Recorded by de Tabley from near Mottram. It might have been confused with *P. minor*.

*Pyrola minor* L.  
Common Wintergreen 1

This was known from a wood at Tintwistle and by the R. Etherow in Longdendale in de Tabley's time, but now is only to be found on railway ballast at Disley (SJ9885) where it is assumed to have arrived by train from Derbyshire.

*Pyrola rotundifolia* ssp *maritima* (Kenyon)  
E.F.Warb. Scarce  
Round-leaved Wintergreen 1

A small colony found at Moore (SJ5986) in 2004 was the first record and has increased to two patches.

*Radiola linoides* Roth. NT  
Allseed Extinct

Once common on damp heathy ground, but not recorded since last seen at Flaxmere in 1912. It used to be at Lindow, Lower Withington, Chelford, Shaw Heath, Knutsford, Bowdon, Baguley, Sale Moor, Hatchmere, Bidston, Oxton, Claughton, Heswall, Thurstaston, Neston, Edge, Hankelow Green, Rudheath, and Peover Heath.

*Ranunculus arvensis* L. CE  
Corn Buttercup Extinct

A cornfield weed which like several other similar species is no longer to be found due to the purer seeds and extensive use of herbicides.

*Ranunculus baudotii* Godron  
Brackish Water-crowfoot 1

A species found in brackish pools near the sea formerly known from several places on the coast, but recently seen only on Frodsham Marshes (SJ4978).

*Ranunculus circinatus* Sibth.  
Fan-leaved Water-crowfoot 3

Newton(1971) had this aquatic in 5 sites; Frodsham Marshes, Tatton Mere, Tabley Mere and N Wirral, but recently only 3 sites have been found. It is still in Melchett Mere (Tatton) (SJ7481) and occurred near Congleton in 1991. It also was found in a fishing pool in Anderton Nature Park (SJ6575) in 1999.

*Ranunculus parviflorus* L.  
Small-flowered Buttercup Extinct

Never a common species in Cheshire - de Tabley sites Upton, Hoylake, West Kirby and Lawton - it is now gone. Its decline is due to intensive farming, the use of herbicides, etc.

*Ranunculus tripartitus* DC. Endangered  
Three-lobed Crowfoot Extinct

*Rhynchospora alba* (L.) Vahl  
White Beak-sedge 2

This is another species to suffer from the drying out of boggy areas. De Tabley says it was common on Lindow Common and occurred on Danes, Carrington, Holford, Oakmere and Wybunbury Mosses and at Marston. In 1926 it was very rare at Hatchmere, but the 1971 Flora did not find it anywhere. However, in 1977 a small patch was found in a bog pool near Abbott's Moss (SJ5969), but was not seen in 1994, the spot being overshadowed by willows. A further colony in Abbott's Moss itself (SJ5968), found in 1991 and it is now thriving there. In 2002, its continued presence at Wybunbury Moss was confirmed where it was abundant in 2008.

*Ribes alpinum* L. Scarce  
Mountain Currant 1

In de Tabley, this shrub was known from Staleybridge, Styal, Disley, and Reddish in 5 locations. The Disley site (SJ9884) is the only one known to still exist, but others could survive. It is not a native in Cheshire.

*Rosa agrestis* Savi. NT  
Small-leaved Sweet-briar 1

A single bush was found on an old lime-dump which mimicked limestone at Runcorn (SJ5383) in 2002.

*Rosa micrantha* Borrer ex Sm.  
Small-flowered Sweet-briar 4

Recorded in ca 1908 by Wolley-Dod (det Primavesi) for several locations in south Cheshire (eg. Chorlton Lane and Burwaldsley), but only currently found at Timbersbrook (SJ9063), Malpas (SJ5047) in 2001, Norley Meres (SJ5549) in 2006, and at Willington (SJ5264) in 2010.

*Rosa mollis* Sm.  
Soft Downy-rose 3

Only two fully convincing specimens of this northern rose have been found; in hedges at Allgreave (SJ9667) and Gawsworth (SJ8971). There is a less certain plant at Brimstage (SJ2982).

*Rosa x hibernica* Templeton  
Irish Rose 2

A large thicket of this rose (*pimpinellifolia* x *canina*) was found at Meols (SJ2390) in 2001 exactly where described by de Tabley. A rather straggly plant was also found by Greasby Brook (SJ2485) near Thurstaston.

*Rosa x margersonii* (Wolley-Dod) Wolley-Dod 1

3 plants of a rose determined as this (*caesia* ssp *vosagiaca* x *pimpinellifolia*) were found at Irby (SJ2584) in 2001, with a larger colony (ca 50m) in a nearby hedgerow which approximates to a site in de Tabley for *R. x hibernica*.

*Rubus chamaemorus* L.  
Cloudberry 9

Recently a 2nd colony has been found near the Cat and Fiddle (SK07A/B) and the BSBI Big Database has several more sites of which I was unaware. SE00F, K, L, M, R, S and X. It seems to be widespread but in small colonies in the eastern hills.

*Rubus wolley-dodii* (Sudre) W.C.R. Watson RDB  
Wolley-Dod's Bramble

A British endemic found only at Edge Park and surrounding district (SJ44 & 45).

*Rumex longifolius* DC.  
Northern Dock 1

First found for the county during the 1971 Flora survey at Billinge Hill (SJ9577) and still present at its most southerly British location. It also grows in a nearby pasture. The hybrid with *R. obtusifolius* has been found there occasionally.

*Rumex alpinus* Höfft  
Monk's Rhubarb NT 3

Another culinary herb of ancient introduction, characteristic of hill farms in the east. De Tabley did not mention it, but it is still to be found in Macclesfield Forest (SJ9772) and at Kettle-shulme (SJ9978) and also in Brabyn's Park, Marple (SJ9689).

*Ruppia maritima* L.  
Beaked Tasselweed ?

In 1971 this was only detected on Burton Marsh, after having been seen in several coastal sites in the 19th C, but the Dee Estuary is much changed since then. It could easily be present in salty pools in the area, but has only been found in a brackish pool at Nantwich (SJ6451) of late. In 2000, this was so befouled by bird droppings that no plant life survived at all!

*Sagina nodosa* (L.) Fenzl  
Knotted Pearlwort 5

De Tabley knew this as frequent on the coast, siting New Brighton, Wallasey, Leasowe, Hoylake, Parkgate and Burton Rocks. It has not been reported recently from there although a few moist hollows do survive. His location from the "Cat & Fiddle" is still extant (SK0071), but not those from Knutsford, Baguley, Hale Moss, Rostherne Mere, Pickmere and Wilderspool. It is however, thriving on Ashton's and Neumann's Flashes at Marston (SJ6674) on old lime beds and was seen in 1990 by the canal at Hyde (SJ9493) and SJ9494 in 2012. A site at Broadheath (SJ7588) appears lost. Several sites occur in the Goyt Valley. (SK07).

*Sagina subulata* (Sw.) C.Presl.  
Heath Pearlwort Extinct

Another species which has succumbed to the degradation of heathland, though never common, having been found only at

Oakmere, Little Budworth, Heswall, Bebbington, Frankby, and Thurstaston. It could yet be refound.

*Salicornia* species  
Glassworts

Glasswort occurs all round the coast in suitable places and various species have been determined. *S. dolichostachya* is at Heswall (SJ2581), Little Neston (SJ2876) and New Ferry (SJ3485); *S. europaea* at Red Rocks (SJ2087), Heswall, and Little Neston; *S. fragilis* at Red Rocks, Heswall and Little Neston and *S. ramosissima* at Red Rocks, Heswall, Little Neston and New Ferry. A remarkable inland site for the latter at Neumann's Flashes (SJ6675) seems to have disappeared when the habitat dried out.

*Salix triandra* L.  
Almond Willow 4

De Tabley sites Marple and by Peover Eye, Newton (1971) has 2 unnamed sites in SJ86 and recently it has been found at Wrenbury in 1996 with 2 male trees on the river bank (SJ5848), at Blakenhall (SJ7348) in 2 spots in 1993 and 1996, one at Crowton (SJ5872), and Norbury Meres (SJ5448), but some of these now seem doubtful.

*Salsola kali* L.  
Saltwort Vulnerable 3

Although once fairly common along the coast, this plant of open sand was not found for the 1971 Flora. However, in 1975 it was reported from Red Rocks (SJ2087) and from West Kirby in 1986. Recently it has flourished between Leasowe and Meols with a siting at Wallasey (SJ2893) in 1995.

*Salvia verbenaca* L.  
Wild Clary 3

De Tabley used to know this at West Kirby, declaring it gone by 1873, but still knew it at Chester by the Roodee. By 1971 only one site at Denhall was known. However, it was refound at Hoylake (SJ2088) in 1982 on the golf-course and was still there in 2004. A further colony was found in 1994 (SJ2087). Sites have also been found inland in SJ7360 and SJ7574 whose status is unknown.

*Saxifraga hirculus* L.  
Yellow Marsh-saxifrage Vulnerable Extinct

Last seen on Knutsford Moor in 1842 where the habitat is now quite unsuitable.

*Saxifraga tridactylites* L.  
Rue-leaved Saxifrage 14

Formerly locally common on the Wirral, (Hoylake, Bidston, Wallasey, Prenton, and New Brighton), but only known from Wallasey golf-course and Beeston Castle by 1971. Recently it seems to be increasing in more artificial habitats and has been recorded (1993) from walls in Frankby (SJ2486) on the Wirral. Elsewhere, it has been seen at Winnington in 1995 on top of a



bund (SJ6373) and in 1999 in SJ45. Plants at Dewsnap sidings (SJ9397) were lost when this valuable site was developed. It also is to be found round industrial sites in east Wirral as in SJ3878/3977/4076/4176.

*Scandix pecten-veneris* L.

CE

Shepherd's Needle

Extinct

Another species to succumb to the greater purity of grain and use of herbicides. Morley in 1924 was the last of many casual appearances.

*Scheuchzeria palustris* L.

Rannoch Rush

Extinct

Known in 1844 from Wybunbury Moss and seen again in 1865 and finally in 1896.

*Schoenus nigricans* L.

Black Bog-rush

Extinct

Previously recorded from Stretton Moss and Wybunbury Moss.

*Scleranthus annuus* L.

Endangered

Annual Knawel

4

Reported by de Tabley as having a "thin but uninterrupted" distribution, but reduced to 7 sites by 1971. Recently records have come from old sand quarries at Alderley Edge (SJ8678) in 1989 and Mouldsworth (SJ5170) in 1991 but not since. Its has also been found in open sandy habitats at Whitegate (SJ6269) in 1991 and Maiden Castle (SJ4952) in 1998, but not seen in 2005. Only one plant was found in SJ8678 in 2009.

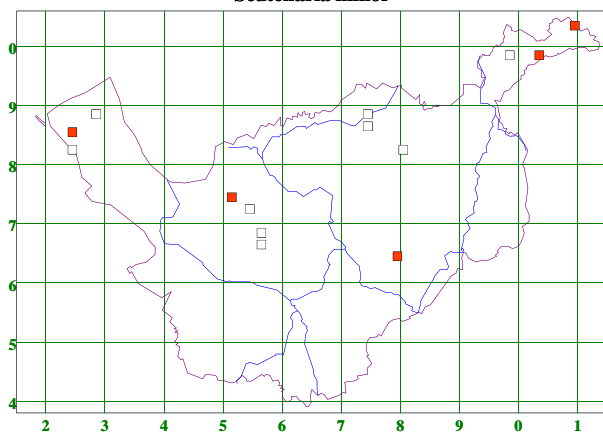
*Scutellaria minor* Huds.

Lesser Skullcap

5

De Tabley cites this bog plant as rare and decreasing which has proved to be the case. It has been known from Staley Moor, Lindow Common, Seaman's Moss, Bowdon, Hale, Delamere, Oakmere, Achmere, Fishpool, Heswall, Thurstaston, Bidston, and Oxtan. Newton (1971) gives 4 sites all of which are still known; Holme Moss (SK0903) seen 1992, Tintwistle (SK0398) in 1999, Brereton Heath (SJ7964) in 1992, Snidley Moor (SJ5174) in 1990 but very overgrown, and refound on Thurstaston Common (SJ2485) in 2000.

*Scutellaria minor*



*Sedum anglicum* Huds.

English Stonecrop

1

Only ever seen on the coast and reduced to one area (Hoylake) by 1971. A recent record came from Leasowe (SJ2792) in 1992.

*Selaginella selaginoides* (L.) P.Beauv.

Lesser Clubmoss

Extinct

Used to occur in dune-slacks at Heswall, New Brighton, and Wallasey,.

*Seriphidium maritimum* (L.) Polj.

Sea Wormwood

Extinct?

Only ever known from Wallasey Pool, from where it was seen in 1860, and Bromborough Pool from where it had disappeared by 1974. It was reported from a field bank at Meols (SJ2490) in 1981 where its current status is unknown.

*Serratula tinctoria* L.

Saw-wort

4

Never common in Cheshire, de Tabley giving only 6 sites (Mobberley, Tattenhall, Clatterbridge, Wybunbury, Lower Peover and previously Gilbrook from which he says it was gone by 1860). Newton (1971) only has one site in SJ66 whose precise location is unknown. Today, it is known from road verges at Moston (SJ7161) and Coddington (SJ4356) where it suffers from mowing, and a few plants were found in an old hedge at Darnhall (SJ6264) in 1996, but not in Newton's site. One plant in the hedge Bradwall (SJ7664) in 2003.

*Silene gallica* L.

Endangered

Small-flowered Catchfly

Casual

A much reduced weed of cultivated sandy soils which is only ever casual in Cheshire. It has occurred on the Wirral as at Hoylake in 1860 and Newton (1971) gives an SJ28 site for 1968. Recent records are from Middlewich (SJ7166) in 1993 and Winsford (SJ6568) in 2000.

*Silene uniflora* Roth.

Sea Campion

3

The most recent records are from Red Rocks, Hoylake (SJ2088) and Hilbre Island (SJ1887), both of long standing. Newton (1990) also gives the Mersey bank in SJ47. De Tabley says it used to grow in the Tranmere/Rock Ferry area and knew it at Burton Point and Parkgate.

*Sorbus torminalis* (L.) Crantz

Wild Service-tree

4

A handsome tree only to be found in ancient woodland. De Tabley, however, reported it only from Delamere Forest where it was planted. It occurs in indigenous woodland at Darnhall (SJ6462), Shotwick (SJ3470) with 30 trees and Warburton's Wood, Kingsley (SJ5576) and in hedges at Threapwood (SJ4445).

*Sparganium natans* L.

Least Bur-reed

Extinct

The one site in Newton (1971) in a spring fed pond in SJ28 is now lost. Historical sites were at Seamann's Moss, Hatchmere, New Ferry, Bebbington, Thurstaston, Little Sutton, Wybunbury and Rudheath.

*Spergularia rupicola* Lebel ex Le Jol.

Rock Sea-spurrey

2

One of few species not depleted by time, being still in abundant on Hilbre Island (SJ1887) where de Tabley records it. It now occurs at Hoylake as well (SJ2088).

*Spiranthes spiralis* (L.) Chevall.

NT

Autumn Lady's-tresses

Extinct

Only certainly found on the Wirral at Rock Fort, Leasowe, and Hoylake and last seen in 1917 at Caldý.

*Teesdalia nudicaulis* (L.) R. Br.

NT

Shepherd's Cress

3

A spring annual which used to be fairly common on sandy commons as at Lindow, Withington, Hale, Bowdon,, Timperley, Knutsford, Overton, Delamere, Peckforton, Little Budworth, Oakmere, Tranmere, Bidston, Prenton, Storeton, West Kirby, Broxton, Bickerton, Congleton, Goostrey, Brereton, etc. Newton (1971) gives Storeton, Wybunbury, Sound, and unlocalised sites in SJ56 and SJ67. By 1990, only Wybunbury (SJ7049) and Sandiway (SJ6071) remained. Since then it has been found in Carden Park (SJ45) in 1996.

*Thalictrum minus* L.

Lesser Meadow-rue

2

As a native, Lesser Meadow-rue has always been confined to the Dee coast where it is ssp *arenarium* (Burkh.) Clapham and it can still be found there today on Hoylake dunes (SJ2087) and on the Leasowe system (SJ2290). Elsewhere, it is usually introduced garden forms and has been seen in Stockport, Storeton, Hooton and Bromborough.

*Thelypteris palustris* Schott

Marsh Fern

Scarce

5

Always a rare fern from wet habitats, found by de Tabley at Knutsford, Rostherne Mere, Newchurch Common, Petty Pool, Bar Mere and Wybunbury Moss. Recently it has only been recorded from Wybunbury Moss (SJ6950), Quoisley Mere (SJ5445) Norley Mere (SJ5549), Marley Moss (SJ5745) and Knutsford (SJ7579). Newton (1990) reports its unconfirmed survival at Petty Pool.

*Thymus polytrichus* A. Kern ex Borbás ssp. *britannicus* (Ronninger) Kerguélen

Wild Thyme

3

As a native, virtually confined to the coast as at Hoylake (SJ2088) and Meols (SJ2290). De Tabley also reports it as very rare in the eastern hills at Lyme Park, Disley, and Kerridge, Bollington. A recently discovered colony on the road verge by

the Cat & Fiddle (SK0071) is more likely to have arrived with limestone chippings. De Tabley also knew a large colony in Mobberley, and some in the Norley area.

*Torilis nodosa* (L.) Gaertn.

Knotted Burr-parsley

?

Another Wirral plant no longer found. De Tabley gives Little Sutton, Parkgate, Burton Point, Bidston Marsh, Chester and Thornton Grange. Last seen at Burton Point in 1910. Refound in 2012 on disturbed ground in the Chester area. May not survive.

*Trichomanes speciosum* Willd.

Killarney Fern

2

A new species recorded by Dr. Des Callaghan (county bryophyte recorder) in 2013 in a hollow on sandstone cliffs near Marple (SJ9489) (conf A O Chater). This was the gametophyte form. Dr Callaghan has now found a colony on Alderley Edge (SJ8676).

*Trifolium ornithopodioides* L.

Bird's-foot Clover

1?

This inconspicuous plant used to occur in various spots along the Dee shore: Parkgate, Ness, Bidston Hill, Grange, and Caldý. Newton (1971) gives the last record as 1942 at Thurstaston. Several plants appeared at Leasowe (SJ2491) in 1986 where they were last seen in 1994. It was also found on Hilbre Island in 1994.

*Trifolium subterraneum* L.

Burrowing Clover

Extinct

Another Dee Shore plant now no longer with us. De Tabley gives Parkgate and West Kirby and it was discovered at Meols along with *T. Ornithopodioides*, but the site was destroyed. It occurred in Congleton (SJ8564) in 1984, but was gone by 1988.

*Trifolium suffocatum* L.

Scarce

Suffocated Clover

Extinct

A specimen in LIV collected by J Dickinson from SJ27, labelled *T. subterraneum* has been redetermined as this species.

*Trollius europaeus* L.

Globe-flower

Extinct

De Tabley gives only Great Wood, Staley "in great quantity".

*Tulipa sylvestris* L.

Wild Tulip

Extinct

A small colony on a sandy stream bank at Coddington (SJ4555) was reduced to 2 leaves in 1989 and its survival is doubtful.

<i>Utricularia minor</i> L. Lesser Bladderwort	2	<i>Vicia lutea</i> L. Yellow Vetch	NT 2
<p>An easily overlooked aquatic found in bog pools which used to be more common (Lindow, Hale Moss, Carrington, Tabley, Thornton Marsh, Hatchmere, Newchurch, Brookhouse Moss, and Rudheath), but is now known only from Abbott's Moss in 2 peaty pools (SJ5968/9).</p>		<p>Present in Cheshire only as a result of introduction with grass seed. The Stockport colony (SJ9090) has now died out, as has the one at Tarvin (SJ4966) where it was first found in 1991. De Tabley records it as found at Caldly in 1862, but the habitat was destroyed by a storm in 1986!</p>	
<i>Utricularia vulgaris</i> agg Greater Bladderwort	3	<i>Vicia sylvatica</i> L. Wood Vetch	3
<p>Again, more common in the past with sites in de Tabley for Seamann's Moss, Mobberley, Moore, Tabley, Knutsford, Thornton Marsh, Frodsham, Dunham, Woodside, Meols, Saughton, Irby, Brookhouse Moss, Lower Peover, Edge and Wybunbury. Newton (1971) gives 6 sites of which 2 in SJ37 &amp; 88 were lost by 1990. Recent sightings have been at Wimbolds Trafford (SJ4372) and at Prenton (SJ2985), Hooton (SJ3477) and Leasowe (SJ2491) in ponds.</p>		<p>De Tabley gives Bramhall, Cotterill, Vale Royal, Over and Lower Wych, to which Newton (1971) adds an unlocalised site in SJ86. It is still present at Lower Wych (SJ4844) and in abundance at Winsford (SJ6468) and Wharton (SJ6567/6568). A small colony was found in Bowshott Wood, Twemlow Green (SJ7867) in 1993. The Bollin Valley plants have not been located recently and the new runway may have sealed their fate. A flourishing colony at Swallowswood Reserve, Hollingworth is presumed introduced.</p>	
<i>Vaccinium x intermedium</i> Ruthe Intermediate Bilberry	Scarce 2	<i>Viola canina</i> ssp. <i>canina</i> L. Heath Dog-violet	NT 2
<p>The hybrid between Bilberry and Cowberry is confined to moors in Staffs, Derbys, Yorks and Cheshire. It has been found on Congleton Edge (SJ8760) and Bosley Cloud (SJ9063) in small quantity.</p>		<p>Although possibly once found on inland heaths (de Tabley cites Hale Moss, Bowdon, Mouldsworth, Budworth, Newchurch and Delamere), there may have been some taxonomic confusion with <i>V. riviniana</i>. Nowadays, true <i>canina</i> is only to be seen on sand dunes at Hoylake (SJ2088) and Leasowe (SJ2792) where it is rare.</p>	
<i>Verbascum lychnitis</i> L. White Mullein	Scarce Extinct?	<i>Viola tricolor</i> L. ssp. <i>curtisii</i> (E. Forst.) Syme Seaside Pansy	Extinct
<p>Newton (1971) gives Malpas and Frodsham as locations for this plant which is not native in Cheshire. The Malpas site is now gone and it seems likely that the Frodsham site will not survive the recent change in topology. A magnificent colony at Dew-snap sidings (SJ9397) was lost when the site was developed.</p>		<p>Once known from the sand-hills at New Brighton and last seen in 1924.</p>	
<i>Verbascum virgatum</i> Stokes Twiggy Mullein	Casual	<i>Vulpia fasciculata</i> (Forssk.) Fritsch Dune Fescue	Scarce 3
<p>Although nationally scarce, this species also occurs widely as an introduction, as in Cheshire. De Tabley records it from Bredbury, Aston, Plumley, and Delamere. The year 2000 saw a reappearance after many years with sightings at Parkgate (SJ2478), Bromborough (SJ3582), Wallasey (SJ2993), on a rubbish heap at Tabley Superior (SJ7279) and on an old wall at Sutton (SJ9271). Surprisingly, the Tabley colony was thriving in 2010.</p>		<p>De Tabley records this as very abundant at Wallasey and Hoylake, making it curious that it was not seen for the 1971 Flora where it is recorded as extinct after 1908. It was refound at Leasowe (SJ2792) in 1988 and has since been found at Hoylake (SJ2087) and Meols (SJ2289). The hybrid with <i>Festuca rubra</i> (<i>xFestulpia hubbardii</i>) has been found in several places at Leasowe.</p>	
<i>Vicia lathyroides</i> L. Spring Vetch	4	<i>Wahlenbergia hederacea</i> (L.) Rchb. Ivy-leaved Bellflower	NT 4
<p>This spring annual is mainly to be found on coastal dune systems, but with the occasional inland site. De Tabley has it from Macclesfield Common, Newton (1971) gives it from Beeston Castle (SJ5359). Recently, it has been seen on Hilbre Island (SJ1887), Hoylake (SJ2088), Leasowe (SJ2793) and Wallasey (SJ2893).</p>		<p>De Tabley records it from by the R Etherow, and at Snidley, Frodsham, but neither is known to survive. He also mentions Woodhead in which area most colonies are now found. There are good colonies on Holme Moss (SE0903) and Pikenaze Moor (SE1100) with a small colony near Tintwistle (SK0398).</p>	

## MONADS WITH SCARCE SPECIES

- 1887 *Asplenium marinum*, *Cerastium arvense*, *Limonium celticum*, *Myriophyllum alterniflorum*, *Silene uniflora*, *Spergularia rupicola*, *Trifolium ornithopodioides*, *Vicia lathyroides*
- 2971 *Linum bienne*
- 2974 *Allium oleraceum*
- 2087 *Blysmus rufus*, *Equisetum variegatum*, *E. x trachyodon*, *Eryngium maritimum*, *Salsola kali*, *Salvia verbenaca*, *Thalictrum minus*, *Vulpia fasciculata*
- 2088 *Crithmum maritimum*, *Spergularia rupicola*, *Salvia verbenaca*, *Silene uniflora*, *Thymus polytrichus*, *Vicia lathyroides*, *Viola canina*
- 2285 *Crithmum maritimum*
- 2289 *Vulpia fasciculata*
- 2383 *Adiantum capillus-veneris*, *Eleogiton fluitans*
- 2482 *Crambe maritima*, *Eryngium maritimum*
- 2484 *Drosera intermedia*,
- 2485 *Scutellaria minor*
- 2486 *Saxifraga tridactylites*
- 2584 *Rosa x margerisonii*
- 2880 *Linum bienne*
- 2985 *Utricularia vulgaris*
- 2290 *Equisetum x trachyodon*, *Thalictrum minus*, *Thymus polytrichus*
- 2390 *Rosa x hibernica*
- 2490 *Hippuris vulgaris*
- 2491 *Carex viridula ssp viridula*, *Centaurium pulchellum*, *Trifolium ornithopodioides*, *Utricularia vulgaris*
- 2492 *Eleocharis quinqueflora*
- 2591 *Eleocharis quinqueflora*
- 2592 *Cotula coronopifolia*
- 2792 *Coincya monensis*, *Eryngium maritimum*, *Sedum anglicum*, *Viola canina*, *Vulpia fasciculata*, *xFestulpia hubbardii*
- 2793 *Vicia lathyroides*
- 2893 *Coincya monensis*, *Equisetum variegatum*, *Salsola kali*, *Vicia lathyroides*
- 2993 *Equisetum x trachyodon*
- 2994 *Asplenium marinum*
- 3858 *Myosurus minimus*
- 3958 *Myosurus minimus*
- 3861 *Bromus racemosus*
- 3074 *Carex muricata ssp lamprocarpa*
- 3075 *Euphorbia exigua*
- 3470 *Sorbus torminalis*
- 3476 *Hypericum elodes*
- 3477 *Utricularia vulgaris*
- 3681 *Mentha pulegium*
- 4248 *Myosurus minimus*
- 4445 *Sorbus torminalis*
- 4448 *Eleogiton fluitans*
- 4749 *Gagea lutea*
- 4844 *Vicia sylvatica*
- 4252 *Dipsacus pilosus*
- 4258 *Myosurus minimus*
- 4352 *Lathyrus nissolia*
- 4356 *Serratula tinctoria*
- 4952 *Asplenium trichomanes ssp pachyrachis*, *Scleranthus annuus*
- 4067 *Lepidium latifolium*
- 4163 *Clinopodium ascendens*
- 4661 *Clinopodium ascendens*
- 4966 *Vicia lutea*
- 4276 *Calystegia sepium ssp roseata*
- 4372 *Utricularia vulgaris*
- 4878 *Cotula coronopifolia*
- 4977 *Bromus commutatus*
- 4978 *Ranunculus baudotii*
- 5045 *Carex muricata ssp. pairae*
- 5046 *Carex hostiana*
- 5047 *Rosa micrantha*
- 5445 *Cirsium dissectum*, *Thelypteris palustris*
- 5549 *Rosa micrantha*
- 5549 *Thelypteris palustris*
- 5745 *Thelypteris palustris*
- 5844 *Potamogeton pusillus*
- 5848 *Salix triandra*
- 5944 *Impatiens noli-tangere*
- 5255 *Asplenium trichomanes ssp pachyrachis*
- 5358 *Clinopodium ascendens*
- 5053 *Asplenium trichomanes ssp pachyrachis*
- 5054 *Asplenium trichomanes ssp pachyrachis*
- 5264 *Rosa micrantha*
- 5669 *Cerastium arvense*
- 5767 *Calamagrostis stricta*, *Persicaria minor*
- 5968 *Andromeda polifolia*, *Rhynchospora alba*, *Utricularia minor*
- 5969 *Eleocharis multicaulis*, *Rhynchospora alba*, *Utricularia minor*, *Andromeda polifolia*
- 5077 *Bromus commutatus*
- 5170 *Filago minima*, *Scleranthus annuus*
- 5174 *Scutellaria minor*
- 5378 *Allium oleraceum*
- 5379 *Centaurium littorale*, *Epipactis palustris*, *Gymnadenia densiflora*, *Linum bienne*
- 5477 *Allium oleraceum*
- 5572 *Andromeda polifolia*, *Myrica gale*, *Nuphar pumila?*
- 5576 *Eleocharis uniglumis*, *Sorbus torminalis*
- 5776 *Dipsacus pilosus*
- 5977 *Paris quadrifolia*
- 5785 *Calystegia sepium ssp roseata*
- 5080 *Eleogiton fluitans*
- 5383 *Rosa agrestis*
- 5584 *Calystegia sepium ssp roseata*
- 5785 *Filago vulgaris*, *Cerastium arvense*
- 6148 *Eleogiton fluitans*
- 6444 *Lepidium latifolium*
- 6446 *Brachypodium pinnatum*
- 6448 *Bromopsis erecta*
- 6058 *Lathyrus nissolia*
- 6152 *Bromopsis erecta*
- 6750 *Mentha pulegium*
- 6950 *Andromeda polifolia*, *Carex lasiocarpa*, *Carex limosa*, *Rhynchospora alba*, *Thelypteris palustris*
- 6959 *Eleogiton fluitans*
- 6069 *Potamogeton pusillus*
- 6169 *Andromeda polifolia*
- 6264 *Serratula tinctoria*
- 6269 *Scleranthus annuus*
- 6462 *Sorbus torminalis*
- 6468 *Vicia sylvatica*
- 6567 *Vicia sylvatica*, *xAgropogon littoralis*
- 6568 *Lathyrus nissolia*, *Vicia sylvatica*
- 6966 *Juncus compressus?*
- 6074 *Bromus commutatus*
- 6076 *Colchicum autumnale*
- 6373 *Saxifraga tridactylites*

6575 *Mentha pulegium, Puccinellia rupestris, Ranunculus circi-*  
*natus. Hypopitys monotropa*  
6674 *Epipactis palustris, Sagina nodosa*  
6972 *Bromus commutatus*  
6979 *Bromus secalinus*  
6382 *Myrica gale*  
6981 *Bromus secalinus*  
6982 *Bromus secalinus*  
7360 *Salvia verbenaca*  
7049 *Filago minima, Teesdalia nudicaulis*  
7348 *Salix triandra*  
7444 *Circaea x intermedia*  
7757 *Fritillaria meleagris*  
7161 *Serratula tinctoria*  
7664 *Serratula tinctoria*  
7867 *Vicia sylvatica*  
7964 *Scutellaria minor*  
7175 *Bromus secalinus*  
7371 *Hypericum elodes*  
7574 *Salvia verbenaca*  
7579 *Potamogeton pusillus*  
7772 *Impatiens noli-tangere*  
7773 *Bromus commutatus*  
7875 *Myrica gale*  
7879 *Carex muricata ssp. pairae*  
7082 *Bromus secalinus*  
7381 *Elatine hexandra, Potamogeton pusillus*  
7387 *Potamogeton lucens*  
7888 *Brachypodium pinnatum*  
7892 *Juncus compressus*  
7992 *Pilosella x stolonifera*  
8156 *Rosa micrantha*  
8061 *Andromeda polifolia*  
8669 *Myrica gale*  
8760 *Vaccinium x intermedium*  
8472 *Hippuris vulgaris*  
8678 *Scleranthus annuus*  
8971 *Rosa mollis*  
8083 *Anacamptis pyramidalis, Circaea x intermedia*  
8084 *Hordelymus europaeus*  
8281 *Andromeda polifolia*  
8283 *Daphne laureola, Hordelymus europaeus, Tilia cordata*  
8191 *Arabis hirsuta*  
9063 *Rosa micrantha, Vaccinium x intermedium*  
9166 *Myriophyllum alterniflorum*  
9266 *Limosella aquatica, Luronium natans*  
9366 *Carex hostiana*  
9667 *Rosa mollis*  
9070 *Myrica gale*  
9577 *Rumex longifolius*  
9671 *Persicaria minor*  
9772 *Rumex pseudoalpinus*  
9876 *Circaea x intermedia*  
9974 *Huperzia selago*  
9973 *Huperzia selago*  
9978 *Rumex pseudoalpinus*  
9979 *Chenopodium bonus-henricus*  
9089 *Phegopteris connectilis*  
9485 *Circaea x intermedia*  
9489 *Trichomanes speciosum*  
9689 *Rumex pseudoalpinus*  
9783 *Myriophyllum alterniflorum*  
9588 *Hypopitys monotropa*  
9880 *Potamogeton alpinus*  
9884 *Chenopodium bonus-henricus, Ribes alpinum*  
9885 *Pyrola minor*  
9296 *Luronium natans*  
9395 *Potamogeton alpinus*  
9493 *Sagina nodosa*  
9694 *Daphne laureola*  
0069 *Andromeda polifolia*  
0071 *Sagina nodosa, Thymus polytrichus*  
0072 *Rubus chamaemorus*  
0074 *Sagina nodosa*  
0079 *Myriophyllum alterniflorum*  
0096 *Chenopodium bonus-henricus*  
0097 *Vicia sylvatica, Luronium natans*  
0176 *Phegopteris connectilis, Sagina nodosa*  
0198 *Chenopodium bonus-henricus*  
0201 *Rubus chamaemorus and most squares to N and E*  
0298 *Carex hostiana*  
0398 *Scutellaria minor, Wahlenbergia hederacea*  
0599 *Hieracium vagense, Lycopodium clavatum*  
0901 *Phegopteris connectilis*  
0903 *Scutellaria minor, Wahlenbergia hederacea*  
1100 *Wahlenbergia hederacea*

## EXTINCT SPECIES

The following species are natives or plants of ancient introduction by man which used to occur in VC58, but are no longer believed to do so.

*Alopecurus bulbosus*  
*Anacamptis morio*  
*Bupleurum tenuissimum*  
*Calystegia soldanella*  
*Carex diandra*  
*Carex dioica*  
*Carex viridula* ssp *brachyrrhyncha*  
*Carlina vulgaris*  
*Centunculus minimus*  
*Cirsium eriophorum*  
*Clinopodium acinos*  
*Coeloglossum viride*  
*Cryptogramma crispa*  
*Dianthus deltoides*  
*Drosera anglica*  
*Dryopteris cristata*  
*Epipactis phyllanthes*  
*Galeopsis angustifolia*  
*Genista anglica*  
*Gentiana pneumonanthe*  
*Gentianella campestris*  
*Geranium columbinum*  
*Gnaphalium sylvaticum*  
*Groenlandia densa*  
*Gymnocarpium dryopteris*  
*Hammarbya palustris*  
*Hypericum montanum*  
*Hypochaeris glabra*  
*Lathyrus sylvestris*  
*Lithospermum arvense*  
*Lycopodiella inundata*  
*Marrubium vulgare*  
*Meum athamanticum*  
*Moenchia erecta*  
*Myriophyllum verticillatum*  
*Neottia cordata*  
*Orobanche rapum-genistae*  
*Parnassia palustris*  
*Pedicularis palustris*  
*Pilularia globulifera*  
*Pinguicula vulgaris*  
*Polypodium cambricum*  
*Potamogeton compressus*  
*Potamogeton gramineus*  
*Potamogeton praelongus*  
*Pseudorchis albida*  
*Pyrola media*  
*Radiola linoides*  
*Ranunculus arvensis*  
*Ranunculus parviflorus*  
*Ranunculus tripartitus*  
*Sagina subulata*  
*Saxifraga hirculus*  
*Scandix pecten-veneris*  
*Scheuchzeria palustris*  
*Schoenus nigricans*  
*Selaginella selaginoides*  
*Sparganium natans*  
*Spiranthes spiralis*  
*Torilis nodosa?*  
*Trifolium subterraneum*  
*Trifolium suffocatum*  
*Trollius europaeus*  
*Tulipa sylvestris*  
*Verbascum lychnitis*  
*Viola tricolor* ssp *curtisii*

## SCARCE SPECIES IN VC58

The following species occur in 4 to 16 sites and should be regarded as potentially vulnerable

<i>Alchemilla glabra</i>	<i>Cladium mariscus</i>	<i>Oenanthe lachenalii</i>
<i>Alopecurus aequalis</i>	<i>Clematis vitalba</i>	<i>Ononis spinosa</i>
<i>Allium vineale</i>	<i>Clinopodium vulgare</i>	<i>Ophrys apifera</i>
<i>Ammophila arenaria</i>	<i>Cochlearia anglica</i>	<i>Orchis mascula</i>
<i>Anagallis tenella</i>	<i>Crepis paludosa</i>	<i>Orobanche minor</i>
<i>Anthriscus caucalis</i>	<i>Cystopteris fragilis</i>	<i>Osmunda regalis</i>
<i>Apium graveolens</i>	<i>Dactylorhiza maculata</i>	<i>Parapholis strigosa</i>
<i>Apium inundatum</i>	<i>Dactylorhiza purpurella</i>	<i>Phleum arenarium</i>
<i>Armeria maritima</i>	<i>Drosera rotundifolia</i>	<i>Poa angustifolia</i>
<i>Artemisia absinthium</i>	<i>Dryopteris cambrensis</i>	<i>Polygonatum multiflorum</i>
<i>Asplenium ceterach</i>	<i>Echium vulgare</i>	<i>Polypodium interjectum</i>
<i>Atriplex glabriuscula</i>	<i>Eleocharis acicularis</i>	<i>Polypodium x mantoniae</i>
<i>Atriplex littoralis</i>	<i>Elytrigia atherica</i>	<i>Potamogeton polygonifolius</i>
<i>Berberis vulgaris</i>	<i>Elytrigia juncea</i>	<i>Ranunculus lingua</i>
<i>Botrychium lunaria</i>	<i>Erigeron acer</i>	<i>Ranunculus peltatus</i>
<i>Beta vulgaris</i> ssp <i>maritima</i>	<i>Erophila glabrescens</i>	<i>Raphanus raphanistrum</i> ssp <i>maritimus</i>
<i>Brassica nigra</i>	<i>Erophila majuscula</i>	<i>Rhamnus cathartica</i>
<i>Cakile maritima</i>	<i>Euonymus europaeus</i>	<i>Rhinanthus minor</i> ssp <i>stenophyllus</i>
<i>Calamagrostis canescens</i>	<i>Fumaria bastardii</i>	<i>Rosa caesia</i> ssp <i>caesia</i>
<i>Calamagrostis epigejos</i>	<i>Fumaria capreolata</i>	<i>Rosa caesia</i> ssp <i>vosagiaca</i>
<i>Callitriche hermaphroditica</i>	<i>Galium mollugo</i> ssp <i>erectum</i>	<i>Rosa pimpinellifolia</i>
<i>Callitriche obtusangula</i>	<i>Galium uliginosum</i>	<i>Rosa rubiginosa</i>
<i>Callitriche platycarpa</i>	<i>Gentianella amarella</i>	<i>Rubus caesius</i>
<i>Campanula trachelium</i>	<i>Geranium sanguineum</i>	<i>Rumex crispus</i> ssp <i>littoreus</i>
<i>Carduus nutans</i>	<i>Geum rivale</i>	<i>Rumex maritimus</i>
<i>Carduus tenuiflorus</i>	<i>Gymnadenia conopsea</i>	<i>Sagina maritima</i>
<i>Carex arenaria</i>	<i>Helictotrichon pubescens</i>	<i>Samolus valerandii</i>
<i>Carex binervis</i>	<i>Hordeum secalinum</i>	<i>Sanicula europaea</i>
<i>Carex distans</i>	<i>Hottonia palustris</i>	<i>Saxifraga granulata</i>
<i>Carex disticha</i>	<i>Hydrocharis morsus-ranae</i>	<i>Schoenoplectus lacustris</i>
<i>Carex divulsa</i> ssp <i>divulsa</i>	<i>Hypericum hirsutum</i>	<i>Schoenoplectus tabernaemontani</i>
<i>Carex elata</i>	<i>Inula conyzae</i>	<i>Scirpus sylvaticus</i>
<i>Carex extensa</i>	<i>Juncus ambiguus</i>	<i>Spartina anglica</i>
<i>Carex laevigata</i>	<i>Juncus gerardii</i>	<i>Spergularia media</i>
<i>Carex lasiocarpa</i>	<i>Juncus maritimus</i>	<i>Spergularia rubra</i>
<i>Carex pallescens</i>	<i>Juncus subnodulosus</i>	<i>Spirodella polyrhiza</i>
<i>Carex pulicaris</i>	<i>Lathraea squamaria</i>	<i>Stellaria nemorum</i>
<i>Carex spicata</i>	<i>Lavatera arborea</i>	<i>Stellaria pallida</i>
<i>Carex strigosa</i>	<i>Lepidium campestre</i>	<i>Suaeda maritima</i>
<i>Carex vesicaria</i>	<i>Lepidium heterophyllum</i>	<i>Thalictrum flavum</i>
<i>Catabrosa aquatica</i>	<i>Leymus arenarius</i>	<i>Tilia cordata</i>
<i>Catapodium marinum</i>	<i>Littorella uniflora</i>	<i>Trifolium fragiferum</i>
<i>Catapodium rigidum</i>	<i>Lythrum portula</i>	<i>Trifolium micranthum</i>
<i>Centaurea scabiosa</i>	<i>Melampyrum pratense</i>	<i>Trifolium striatum</i>
<i>Ceratophyllum demersum</i>	<i>Myosotis ramosissima</i>	<i>Triglochin maritimum</i>
<i>Ceratophyllum submersum</i>	<i>Myosotis secunda</i>	<i>Vaccinium vitis-idaea</i>
<i>Chaenorhinum minus</i>	<i>Narcissus pseudonarcissus</i> ssp <i>pseudonarcissus</i>	<i>Valeriana dioica</i>
<i>Chenopodium ficifolium</i>	<i>Nartheicum ossifragum</i>	<i>Valerianella locusta</i>
<i>Chenopodium polyspermum</i>	<i>Neottia ovata</i>	
<i>Chrysosplenium alternifolium</i>		

*Veronica polita*

*Viola lutea*

*Viscum album*

*Viola reichenbachiana*

*Zannichellia palustris*