



## INTRODUCING MY VICE-COUNTY

### Isle of Wight (v.c. 10)

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The Isle of Wight is the largest and second most populous island of England. It is a county in its own right and not part of Hampshire, from which it is separated by the Solent. Three vehicle ferry and two catamaran services provide regular links with the mainland. The Island (as it is referred to by residents), is roughly rhomboid in shape and covers an area of 380 km<sup>2</sup> (150 square miles). Its landscapes are diverse and it is often described as ‘England in miniature’. A chalk ridge runs east/west across the Island terminating in The Needles chalk stacks at the western end and Culver cliff at the eastern end. To the north of the chalk ridge, clays predominate; to the south, sandy soils are widespread. A second smaller chalk outcrop at the southern end of the Island reaches a maximum height of 241 metres at St Boniface Down above Ventnor. The southern coastline is unstable with eroding cliffs. The northern coastline is low lying and estuarine in character.

A view of Tennyson Down and the Needles on the western tip of the Isle of Wight. *Photographs by the author.*

Despite its small size, the Island has a remarkably rich flora, helped by its diverse geology, southern location and large tracts of protected coast and countryside. Ten thousand years ago, the Isle of Wight was not an island but was joined to the mainland by the central chalk ridge which extended westwards to Dorset. The Solent was, at that time, a river which flowed eastwards to reach the open sea somewhere off the present Sussex coast. As the climate improved, sea levels began to rise and by about 8000 years ago, the sea had flooded all the local river valleys and had broken through the chalk ridge to create an island. As sea levels rose muds and peats accumulated in the newly formed estuaries along the north coast.

Today, the flora shows strong affinities with Dorset to the west. *Spergularia rupicola* (Rock Sea-spurrey) occurs commonly along the south-west coastline. *Pilosella peleteriana* subsp. *peleteriana* (Shaggy Mouse-ear), *Euphorbia portlandica* (Portland Spurge), *Carex humilis* (Dwarf Sedge), *Gastridium ventricosum* (Nit-grass), *Ophrys sphegodes* (Early Spider-orchid), the brambles *Rubus aequalidens* and *R. dumnoniensis* and *Asplenium marinum* (Sea Spleenwort) are all present. The bryophytes *Cephaloziella baumgartneri*, *Southbya nigrella*, *Lophocolea fragrans*, *Marchesinia mackaii*, *Gymnostomum viridulum*, *Pterygoneurum ovatum* and *Acaulon triquetrum* can be found.

St Helen's Duver is a small sand dune system at the eastern end of the Island. It is a National Trust property with open access. It has long been considered to be the richest locality for plants for its size. Until recently, it was either the best or the only Island site for *Trifolium suffocatum* (Suffocated Clover), *T. glomeratum* (Clustered Clover), *T. arvense* (Hare's-foot Clover), *Moenchia erecta* (Upright Chickweed), *Oenothera stricta* (Fragrant Evening-primrose), *Anthriscus caucalis* (Bur Chervil), *Artemisia maritima* (Sea Wormwood), *Vulpia fasciculata* (Dune Fescue) and *Vulpia ciliata* subsp. *ambigua* (Bearded Fescue). They are all still present but some of the annual species characteristic of dry, sandy soils have shown

significant range expansions in recent years and now occur more widely in suitable sites across the Island. St Helen's Duver is also a good site to see *Eryngium maritimum* (Sea-holly) and *Calystegia soldanella* (Sea Bindweed) but the star plant is *Scilla autumnalis* (Autumn Squill) which grows in abundance on the stabilised sand dune grassland providing a stunning site in August/early September (see front cover of this issue).

Also at the eastern end of the Island and owned by the National Trust, Culver Down and the adjoining sandstone Redcliff to the south is a good botanical area. The chalk grassland is rich but for two species, *Gentianella amarella* subsp. *anglica* (Early Gentian) and *Campanula glomerata* (Clustered Bellflower), the latter a remarkably localised species on the Island (there are better sites for it on the chalk in west Wight). The chalk cliffs have *Glaucium flavum* (Yellow Horned-poppy) and *Euphorbia portlandica* (Portland Spurge), the latter at its easternmost locality on the south coast. Thin chalky grassland at the top of the cliff has *Valerianella eriocarpa* (Hairy-fruited Cornsalad) where it is likely to be native. Culver Down and Redcliff together have our most extensive and one of the largest populations of *Phelipanche purpurea* (Yarrow Broomrape). This plant occurs at several Island sites, principally in East Wight but, as is typical for this



*Gentianella amarella* subsp. *anglica* (Early Gentian), Goldenhill Fort (left) and *Phelipanche purpurea* (Yarrow Broomrape), Compton Down (right).

species, numbers fluctuate from year to year. There is currently a larger population in a field near Sandown but populations in meadows tend to fluctuate in numbers over time whereas those at Culver have been reliable for well over a hundred years. Also at Redcliff, close to the cliff edge, is our largest and most accessible population of *Silene nutans* (Nottingham Catchfly). The thin sandy grassland here is worth



*Silene nutans* (Nottingham Catchfly), Redcliff



*Equisetum x font-queri*, St Catherine's Point

searching for annual clovers, *Ornithopus perpusillus* (Bird's-foot) and *Poa bulbosa* (Bulbous Meadow-grass).

Around the southern downs, the combination of the massive Upper Greensand overlying the plastic Gault Clay has resulted in huge landslips in the past. Spectacular landslips occur between Luccombe and Blackgang where massive blocks containing Upper Greensand and sometimes the overlying chalk have moved seawards giving rise to a series of irregular sloping terraces with large blocks of sandstone and limestone scattered amongst them. This area is referred to as The Undercliff, stretching for nearly 10km along the coast. This sheltered area has an extremely mild microclimate, allowing a wide range of half-hardy and near tender species to be grown at Ventnor Botanic Garden, a good place to look for unusual alien species. Much of the Undercliff is covered by secondary woodland where *Asplenium scolopendrium* (Hart's-tongue Fern) and *Hedera hibernica* (Atlantic Ivy) dominate the field layer. *Arum italicum* subsp. *neglectum* (Italian Lords-and-Ladies) and *Orobanche hederæ* (Ivy Broomrape) are common components of the woodlands. At the western extremity in the vicinity of St Catherine's Point there is more open ground, grassland and scrub which at one time would have been the characteristic vegetation along much of the Undercliff. Here can be found a few plants of *Astragalus glycyphyllos* (Wild Liquorice), *Asplenium marinum* (Sea Spleenwort) on a couple of coastal rocks, a small patch of *Cyperus longus* (Galingale), the hybrid horsetail, *Equisetum x font-queri* (*E. palustre x telamateia*), growing on a wet coastal ledge with *Epipactis palustris* (Marsh Helleborine), and a suite of Mediterranean-oceanic bryophytes.

Immediately above the Undercliff at St Lawrence Bank, a Hampshire & Isle of Wight Wildlife Trust reserve, holds the largest UK population of the spectacular *Melampyrum arvense* (Field Cow-wheat). Conservation work combined with favourable weather conditions have resulted in a population which can exceed 30,000 plants in good years. Field Cow-wheat has been known as an arable weed from this area since 1823 but these days it occurs in permanent thin grassland. There is another population growing on the inaccessible cliff-face at



*Melampyrum arvense* (Field Cow-wheat), St Lawrence

St Lawrence and in disturbed ground of a garden. These are the only surviving UK ‘native’ sites for this plant which is classified as a neophyte.

The National Trust downland ridge at the western end of the Island encompasses some of our most spectacular scenery, terminating in the world-famous Needles chalk stacks and lighthouse. It is also a botanically rich area. The Military Road crosses Afton Down east of Freshwater Bay. The roadside verge here has a large population (over 1000

plants) of *Orobanche picridis* (Oxtongue Broomrape) which are easily seen. This is Britain’s rarest native broomrape; the only other site being in Kent.

*Gentianella amarella* subsp. *anglica* (Early Gentian) is also present in good numbers in favourable years on the thin south facing chalk slopes. The cliff edge is a good place to see *Matthiola incana* (Hoary Stock) which, together with *Lobularia maritima* (Sweet Alison) has been known from here since at least Victorian times. Hoary Stock was first recorded



*Matthiola incana* (Hoary Stock), Afton Down.

here in 1823. Westwards of Freshwater Bay the long stretch of downland and chalk heath to the Needles is also productive. *Pilosella peleteriana* subsp. *peleteriana* (Shaggy Mouse-ear) grows on the clifftop



Part of the large colony of *Orobanche picridis* (Oxtongue Broomrape) at Afton Down



*Pilosella peleteriana* (Shaggy Mouse-ear), Tennyson Down

in the vicinity of the Tennyson Monument. Further west near the cliff edge, *Marrubium vulgare* (White Horehound) has a native site amongst rabbit warrens. *Ophrys sphegodes* (Early Spider-orchid) is becoming regular along this stretch. Around the battery at the westernmost tip of the Island, *Frankenia laevis* (Sea-heath) and *Atriplex portulacoides* (Sea-purslane) can be seen growing on the chalk clifftop from the

National Trust searchlight position viewpoint, a perched saltmarsh 62 m above sea level.

Newtown Estuary is an excellent example of an undeveloped Solent estuary with saltmarsh grading into ancient woodland in places. There is good access along footpaths. The saltmarsh below Walter's Copse is a good place to look for the native *Spartina maritima* (Small Cord-grass) which has otherwise all but disappeared from the Solent.

Most of our semi-natural woodlands are located on the north side of the Island on heavy clay soils which traditionally were difficult to cultivate. Sadly, coppice woodland management is little practiced today after a surge of interest in the 1990s and many woods have once again become heavily shaded with a poor showing of spring flora. There are few well managed woods today but the National Trust's Walters and Town Copses at Newtown and the Wildlife Trust's Swanpond Copse, near Ryde, are worth a visit. A feature of Island woods is that some species which are frequent in Hampshire woods are absent. However, one showy plant is *Pulmonaria longifolia* (Narrow-leaved Lungwort), a very local species which is one of the Solent basin species. Lack of woodland management has resulted in a



Newtown estuary and *Spartina maritima* (Small Cord-grass).



*Pulmonaria longifolia* (Narrow-leaved Lungwort)

dramatic decline of this species but two good sites to see it are at the entrance to Firestone Copse (Forestry England), where it grows with a fine display of *Narcissus pseudonarcissus* (Wild Daffodil), and on the railway embankments running alongside Swanpond Copse (Wildlife Trust). *Sorbus torminalis* (Wild Service-tree) is characteristic of most of our ancient woods bordering the creeks and inlets along the Solent shoreline. *Lathraea squamaria* (Toothwort) is a feature of many woods on the chalk. The Wildlife Trust's Eaglehead Copse on Ashy Down is a good place to see it.

Acidic bogs are a very scarce and threatened habitat. They are centred around Rookley/Godshell in the centre of the Island and include Bohemia Bog, Munsley Bog and Cridmore Bog. They are the only place where plants such as *Pinguicula lusitanica* (Pale Butterwort), *Drosera rotundifolia* (Round-leaved Sundew), *Wahlenbergia hederifolia* (Ivy-leaved Bellflower), *Narthecium ossifragum* (Bog Asphodel), *Eriophorum angustifolium* (Common Cotton-grass), *Myrica gale* (Bog Myrtle) and a range of sedges and *Sphagna* survive. However, all these sites are in sub-optimal condition and the long-term future for them is not good.

The plant for which the Island is perhaps best known is *Clinopodium menthifolium* (Wood Calamint), a species occurring nowhere else in Britain and Ireland. When first discovered in the Rowridge valley, a sheltered chalk valley in the middle of the Island,

it was described as being present 'in vast quantity, for a greater part of the way towards the head of the vale, scattered over the hillside copses wherever there is shade and sufficient shelter but ... always avoiding open and exposed situations' (Bromfield, 1856). However, it has long been confined to just a couple of roadside verges where it is vulnerable to occasional heavy traffic. Targeted conservation work since 2000 has resulted in an increase of both the extent and the number of plants, assisted by woodland management, meaning that the threat level to the plant has been reduced from Endangered to Vulnerable.



*Clinopodium menthifolium* (Wood Calamint), Rowridge

Another plant for which the Island had special responsibility was *Fumaria reuteri* (Martin's Ramping-fumitory). Lake Allotments, near Sandown, was designated an SSSI purely for its population of the fumitory, at the time the only native site apart from one in Cornwall. It is still present, in quantity in some plots and the site is often visited by botanists. However, a better understanding of its distinguishing features and perhaps an increasing population, has resulted in it being recorded from a number of other Island sites and from many stations elsewhere in the UK in recent years.



*Centaurea cyanus* (Cornflower) and *Glebionis segetum* (Corn Marigold) at Cridmore.

Another noteworthy arable species is *Centaurea cyanus* (Cornflower). Until recently, a few sandy fields west of Bleak Down, Rookley, were blue and yellow with Cornflower and *Glebionis segetum* (Corn Marigold) in favourable years. It was first recorded by botanists from here in 1907 but sub-fossil pollen has been found in quantity in nearby peat deposits dated to 300 years ago. Sadly, current agricultural practice has resulted in a rapid decline of Cornflower (but not Corn Marigold) although plants can still be found in small quantity in arable margins.

Some species-rich MG5 grasslands survive, principally on the north side of the Island and particularly around the Newtown Estuary. Perhaps the best of these is the suite of meadows on MOD land at Jersey Camp, Newtown camp and training area. These meadows were last ploughed around 1895 and since 1911 have been managed as hay meadows. Because they are situated on land used as firing ranges, aftermath grazing has not been possible and over many years the soil has become increasingly poor and slightly acidic. *Anacamptis morio* (Green-winged Orchid), although still present, has declined dramatically since the early 2000s when over 70,000 were regularly counted and the site was opened to the public on one day a year to see the

spectacle. Other species, in particular *Genista tinctoria* (Dyer's Greenweed), have increased spectacularly. The plant is host to two threatened moths and other invertebrates. *Cuscuta epithymum* (Dodder) is also present in spectacular quantity. Formerly a pest of agricultural land, Dodder has today been largely banished to heathlands, chalk downland or fixed dunes on infertile soils. Jersey Camp is perhaps the only site left in this country where it occurs in unimproved meadows. *Viola canina* (Heath Dog-violet) survives in small quantity but sadly most populations have hybridised with *Viola riviniana* and the showy hybrid, *V. × intersita* is now more frequent. *Gaudinia fragilis* (French Oat-grass) is also a feature of the meadows. The first non-casual record of this grass was made on the Island in July 1917 and it has since been found to be a characteristic species of unimproved meadows on the north side of the Island. In more recent years it has spread to meadows on the south of the Island, assisted by agricultural practices. Jersey Camp meadows are very rich; a total of 90 different grassland species are recorded across the 15 ha. They are not open to the public but the adjoining National Trust Newtown meadows are also species-rich and publicly accessible.

The Island is a good place for botanists to visit. Its relatively small size means that everywhere can easily be reached. Large tracts of National Trust countryside make excellent places for botanising and exercising and there is an excellent network of well-signposted footpaths. Very often the weather is good, although this cannot be guaranteed of course! The most recent Flora (Pope et al., 2003) gives much more detail of plants, sites and botanical history.

## References

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