

BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH REGION BULLETIN

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Cardiff, July, 1976

EDITORIAL

This Bulletin is largely concerned with Sorbus torminalis notes. These relate mainly to populations in Dyfed and further data from other counties would be very acceptable so that an overall picture of distribution and habitats in Wales could be built up in detail.

It is regrettable that we cannot include summaries of the two outstanding talks given at the 1975 A.G.M. by Mr. Charles Sinker on the vegetation of Cliff Ledges and by Dr. Stephen Ward on Limestone Pavements and the urgency for their conservation. In both cases we were privileged to be given a preview of work to be published later in extended form. Anyone present at last year's A.G.M. will be eager to read the completed papers.

Notes appear on conservational matters. Here again it is Dyfed and reports from other counties would be very welcome.

Plants of Herefordshire - A Handlist by L.E. Whitehead.

Members who did not take advantage of the reduced price (until 30th June) for Mrs. Whitehead's book may like to know that the period of reduction has been extended until the end of July.

This eminently readable small book claims to be a Handlist but in fact is a very live and comprehensive presentation of the county and its plants in their ecological setting and geological background. I would call the book an achievement of amassed information, presented with grace and very fittingly decorated with John Parkinson's woodcuts. Hereford has been very fortunate in its botanists, not least in Mrs. Whitehouse and her "loyal team".

Notes from the Department of Botany,
National Museum of Wales.

The 4th edition of 'Welsh Timber Trees', written by Dr. H.A. Hyde and revised by the present Keeper, is now at the printers and should be available shortly. Work has started on the 6th edition of 'Welsh Ferns' which will probably be completed in 1978. Criticisms or corrections of any parts of the 5th edition are invited.

'Welsh Timber Trees' has been out-of-print since 1974 and stocks of the last edition of 'Welsh Ferns' are running out. Edition 5 was published in 1969 price 25/- and is still sold for £1.25 (£1.75 with postage & packing). Regrettably, the price of the next edition will have to be considerably higher, so for those who do not need the last word, now is the time to buy the earlier one.

The latest departmental publication is a booklet called 'Botany in Wales', compiled by Assistant Keeper Gwynn Ellis, price 20p + 10p postage & packing. This expands on some of the themes illustrated in the Botany in Wales gallery which was opened to the public in Nov. 1975. It is a guide to our National Parks, Areas of outstanding natural beauty, Long distance footpaths, Heritage coasts, Country parks, Nature trails and walks, Picnic sites and Nature reserves. Anyone interested in the countryside should find it very useful.

THE WILD SERVICE TREE IN PEMBROKESHIRE & SOUTH
CARDIGANSHIRE.

First recorded at Sandy Haven near the entrance to Milford Haven harbour in 1971 (J.Sutton), it was found by S.B. Evans in 1975 in three oakwoods on the banks of the Daucleddau estuary, Lawrenny Wood, Sam's Wood on the left bank and Benton Wood on the right bank, and in Road Wood, Saundersfoot, and by Miss Margaret Patterson in the Teifi gorge above Cardigan. All these sites are at the top of low cliffs extending a little way up the very steep slope above in natural oakwoods (Quercus petraea) except

that the greater part of the Sandy Haven population is on a low Old Red Sandstone cliff associated with scrub: Hawthorn, Blackthorn, Elder, Ivy, Gorse, Dog Rose (R. canina), Rubus spp. and Bracken. In the oakwoods Sorbus torminalis associates are Hazel, Holly, Rowan (Sorbus aucuparia) and Hawthorn in the understory and Luzula sylvatica, Calluna vulgaris, Vaccinium myrtillus, Rubus spp. and ferns in the field layer. The canopy formed by the Oaks is at about 35feet.

The four populations at Sandy Haven and in the Daucleddau estuary each consist of approximately forty trees and established saplings; at Saundersfoot there are eleven and in the Teifi gorge 85, only one of which is on the left (Pembrokeshire) bank. The numbers over 3 inches in diameter are tabulated below :

	3-6ins.	6-8ins.	Total
Sandy Haven	21	6	27
Lawrenny Wood	10	3	13
Sam's Wood	7	0	7
Benton Wood	15	3	18
Road Wood, Saundersfoot	6	0	6
Teifi gorge	<u>18</u>	<u>5</u>	<u>23</u>
	77	17	94

On a roadside hedgebank at Crundale, Haverfordwest there are two small bushes which are probably suckers from a $3\frac{1}{2}$ in. stump.

Reproduction is by suckers and no evidence of seedling regeneration has been found. There is a marked tendency for the Wild Service Trees to occur in groups. The largest trees attain a height of 35 feet and a diameter at 5 feet of 8 inches with their crowns in the canopy but they are rare and the majority do not exceed 25feet. They flower freely, even some saplings no more than six feet high, and there appears to be a considerable set of fruit which persists into the autumn but remains small, hard and dry. A few trees in 1975 had, perhaps, up to 50 fully developed fleshy fruits with seeds but even those with a dozen or fewer were rare.

Sorbus torminalis was the last Sorbus sp. to be found at archaeological sites. It was recorded in a late Iron Age deposit (as charcoal) at Maiden Castle, Dorset laid down in sub-boreal times when the climate in Britain was continental, warm and dry (Godwin, H. (1956). The History of the British Flora). It was only after the warm dry summer of 1975 that I first saw fully developed fruits though I had noted imperfect fruit annually from 1971. It may be that the failure to mature a full crop of fruit in West Wales is the result of an unfavourable climate. The Wild Service Tree may be a relic species with refuges in primary oakwoods on sites never completely cleared by man.

T.A.W. Davis

Sorbus torminalis in Powys, Cardigan and Carmarthen

Powys

Note by Mr. W.M. Condry

"Seven small trees, all within a few yards of each other at the top edge of a sessile oakwood (with Rowan and Beech nearby). The ground is very rocky and the thin soil looks decidedly acid and siliceous. There were also a few suckers, two to three feet high and sheep-nibbled. The site was discovered by R. Stern in the 1960's".

Dyfed Cardigan

This site, on the north side of the Afon Arth and probably the only one in Cardigan, was discovered by J.H. Salter in 1937 and has been systematically surveyed by Mr. A.O. Clater in June 1976. This brief summary by permission.

In a steep Quercus petraea woodland, rocky in parts, there are about 60 individual trees or shrubs of Sorbus torminalis in five colonies of from 5 to 20 in number. Three colonies were flowering, two were not and only one had abundant saplings or suckers. Some colonies were in more or less dense woodland, others in more open conditions. The woodland has a rich species list.

Dyfed Carmarthen

Llandovery, Poor Man's Wood or Poor's Wood

This is a bank of Quercus petraea woodland facing N.E. on an acid clay. Traditionally, though without documentary proof, the poor of Llandovery have had the right to take firewood from this wood though the exact boundaries, and consequently the acreage, are variously recorded. The wood is coppiced and there has been some amenity planting e.g. Castanea sativa. Under close coppice canopy there is virtually no shrub layer and an impoverished ground flora.

In June 1969 Mr. D. Davies found two trees of Sorbus torminalis and refound them in July 1974. The larger tree, at breast height, branched into 4 stems, the main stem being about 2 ft. in circumference, the smaller made 6 stems at the same height with a maximum of 1 ft. circumference. At 25 and 20 ft. respectively, in height, they were interlaced in the canopy and it was impossible to see whether they were flowering or had flowered. Both trees had suckers of a few inches growth.

Cwm mawr Valley, Llanelli

In this steep rocky valley, dominantly of Quercus petraea woodland, 4 small trees were found by Mr. Ian Morgan in June 1974, the largest being about 15 ft in height and the smallest about 3 ft. "The soil is rather acid with Wood Sedge (Carex sylvatica) and heather growing nearby. The trees are growing on boulder clay on a small Pennant sandstone outcrop about 20 ft. high which would prevent grazing animals from reaching them" "It may be significant and worth recording that the trees grow immediately adjacent to an Iron Age (?) fortress". The trees were in full flower in June 1974 and again in 1976.

Laugharne

On September 30th 1975 Mr. S.B. Evans and Mrs. I.M. Vaughan found a stand of 5 small trees at the edge of a low cliff which forms the boundary between a mixed deciduous woodland on old red sandstone and the estuarine saltmarsh.

These trees were coppiced and much branched from the base and in no case did the parent stem exceed 8 ins. in diameter. Only one tree had a sucker but fruits were present on 4 out of the 5. The height of the tallest was estimated at about 35 ft. and the least at about 20 ft.

This site has affinities with Pembrokeshire ones and possibly the existing colony here is a relic of a much larger one before the wood suffered from amenity planting (largely Sycamore) and other interference.

B.S.B.I. Excursion on the Vale of Glamorgan coast

22nd May, 1976

Those converging on this 14 mile stretch of Heritage Coast on the grey morning of the 22nd May were not numerous, but came from as far afield as Birmingham, Oxford, Bristol and Exeter and -yes- 2 from Wales (Haverfordwest), which was just as well for the honour of the Principality, as the three of the home team were Welsh-based English from Cardiff. Rain held off, wind was negligible and the afternoon pleasantly sunny.

Plants of the stretch visited first ranged in size from the minutiae of the Armeria-Limonium-Erodium maritimum community of a spray-washed headland to the Aconitum anglicum-Ruscus aculeatus of the woodland to landward. The party was prostrated in its efforts to grasp the difference between Sagina ciliata and S. maritima and appreciated the muted splendour of Ranunculus parviflorus and $\frac{1}{2}$ " high Veronica arvensis, Myosotis ramosissima and Euphrasia occidentalis.

The Liassic limestone turf here is closely grazed by sheep and rabbits and, where scrub offers a little shelter, the three unpalatable specialities are left severely alone and thrive in quantity. These are Helleborus foetidus with a few flowers still among the drifts of pale follicles Daphne laureola with plumpening fruits and Iris foetidissima with the last of the winter's orange seeds finally blackened.

Taller scrub contains Hippophae rhamnoides growing in the unaccustomed cliff habitat and supposedly wind-worthy Tamarix almost succumbed to salt-scorch. Ornithogalum umbellatum, Centranthus ruber, Verbascum thapsus and Cynoglossum officinale were marginal to the shaded Phyllitis-Arum groves.

Viewing of the Adiantum capillus-veneris and Samolus valerandi on dripping tufa deposits of the lower cliff face necessitated a descent to beach level and traverse of the wave-cut rock platform and provided the excuse for a comfortable lunch on a broad rock ledge just above the high tide. The wholly magnificent view along the lofty Lias cliffs was rendered the more magnificent by the generous spread of Brassica oleracea in full flower.

The cowslip-dotted cliff grassland beyond yielded Orchis morio and O. mascula, Cirsium eriophorum var. britannicum and Carduus nutans: a wooded cwm the splendid gentian-blue flowers of Lithospermum purpureo-caeruleum which is locally dominant at the windward end of the scrub with scattered Dipsacus, Rubia and Helianthemum. Groenlandia densa in the tufa stream of the valley floor sported a few shy flowers among fuzzy gelatinous growths of the rare freshwater red alga, Batrachospermum moniliforme. Much happy hunting was undertaken in the mouth of the hanging valley, from the Limonium binervosum of the cliff brink to the Viburnum lantana of the quite impenetrably wind-shorn scrub,

A move of a few miles by car brought the party to the fine spectacle of the deep wine red massed Matthiola incana among the yellow sea cabbage on a sheer cliff, which, like that of the maidenhair fern site, is used by nesting herring gulls. Back from the beach platform via a stream which carved text book river terraces into the deep tufa deposit of the valley floor and so to another cliff edge brightened by clumps of flowering Cheiranthus cheiri, with Lathyrus latifolius to follow. More orchids grew among the wealth of cowslips here, but most select were the fine patches of Cirsium tuberosum. Unfortunately these are hybridising with neighbouring Cirsium acaulon and less aristocratic thistles and there may be a danger of losing the pure stock. A lighter grazing regime here gives limestone grassland of a different character from the morning's, with tall flowering Helictotrichon pubescens,

Festuca arundinacea and Koeleria cristata; Allium vineale,
Rhinanthus and Betonica among abundant Poterium.

During the course of the day Messrs Arthur Wade and Roy Perry of the National Museum of Wales identified no less than 53 lichens, and a number of epiphytic mosses. The former (of "Welsh Ferns" and "Flora of Monmouthshire" fame) is as spry in his 81st year as many a quarter his age.

Although denied the opportunity to show the dry 'English' character of our southern cliff flora to the expected hill Welshmen from the rainy north, we found the company wholly delightful and the atmosphere warm in more than just the physical sense.

Mary E. Gillham

Strumble Head 12th June, 1976.

Early morning drizzle made way for a warm sunny day shortly after the start of this meeting at Strumble Head. The party of eleven walked along two miles of the long distance coastal path from Strumble Head to Pwllderi.

The rocks of this exposed peninsula are mainly pillow lavas; rhyolite and basic intrusions, all of Ordovician age. Strumble Head is well known for its fine sea-cliff vegetation, particularly the extensive maritime heaths. The party soon found stands of Genista pilosa that were still in flower amongst the Calluna vulgaris and Erica cinerea of these maritime heaths. A diversion to visit a valley mire enabled members to examine Eleocharis multicaulis but it proved too difficult to locate Hypericum undulatum or Parentucellia viscosa at this time of the year. A careful search for sedges in this mire took the day's total to eleven species; Carex binervis, C. demissa, C. echinata, C. flacca, C. hirta, C. hostiana, C. nigra, C. ovalis, C. panicea, C. pilulifera and C. pulicaris. Attractive sheets of Dactylorhiza maculata were found on drier sides of the valley amongst evidence of earlier glories of a purple and yellow carpet of Orchis mascula and Primula veris.

Having returned to the cliff top path the party noted about fifty clumps of Schoenus nigricans growing in a Molinia caerulea dominated depression surrounded by species poor maritime heath. Baldellia ranunculoides was admired, from a distance, apparently flourishing amongst the emergent vegetation of a shallow farm pond. Brilliant blue sheets of Jasione montana characterised areas where the maritime heaths and gorse had been burned in the winter of 1973/4. There was much discussion as to the role of fire in influencing the patterns of sea-cliff vegetation. It was accepted that the more open conditions following burning did permit the establishment of seedlings including those of Genista pilosa. On the other hand it was felt that the dominance of Ulex europaeus and U. gallii over other scrub species was in part attributable to the history of irregular fires. Veronica spicata ssp. hybrida was seen, with a few spikes coming into flower in this burnt area. Although recording has shown that the numbers of V. spicata plants appeared to decline immediately after the fire, those plants that had survived flourished and many seedlings were found by the party in the more open condition around some of the parent plants. A short diversion to examine Asplenium billottii growing in the sheltered crevices of a dolerite promontory was the final highlight of the day.

After the majority of members had dispersed one of us stumbled upon a lady visitor with stainless steel trowel in hand and red-faced husband furtively placing a box of Armeria maritima cushions in the back seat of their car. The relevant section of the Wild Creatures and Wild Plants Act 1975 was quoted for the offenders' benefit and the only defence offered was the remark that "my daughter is a conservationist too"!!! Clearly the temptation to take a little of the splendour of those sea-cliffs home with them had proved too strong to resist.

S.B. Evans

Of Conservational Interest

Linaria supina was first recorded on the railway at Pinged and Burry Port by the late J.E. Lousley in 1948 and has persisted there ever since though the Burry Port site has now become derelict land the ownership of which is undecided between the Port and Railway Authorities.

In June 1974 the Pinged site was found to have been sprayed with weed killer and no living material of the Linaria could be found. Hoping for seed regeneration I wrote to the Rail Authorities asking whether they would consider sparing a length of the track on either side of Pinged Halt from further spraying and had a most courteous reply promising immunity for $\frac{1}{4}$ mile either side of the gates. In 1975 the plant reappeared here, very sparsely, but, with protection, 1976 sees a satisfactory increase. The Rail Authorities were good enough to telephone promising continued immunity from spraying.

Pembrey : Royal Ordnance Factory Site

In Sept. 1975 a long story of contest over the future of the old Royal Ordnance Factory site at Pembrey came to a head in a Public Enquiry.

This site comprises some 600 acres of old dunes and slacks. It has suffered considerable modification for war time needs, afforestation, recreation, and pasturage, but still has the great botanical interest and many of the species recognised by at least two centuries of botanists, moreover it is a gateway to the most important Dune complex at Towyn Burrows to the north, via the famous Cefn Sidan sands.

Four members B.S.B.I. gave evidence against the proposal for outright commercial development as a residential amusement centre: Mr. S.B. Evans for N.C.C., Mr. D. Davies for W.W.N.T., Mr. Tallowin for Llanelli Naturalists', and Mrs. I.M. Vaughan for B.S.B.I.

It was heartening to find the conservationists absolutely at one with all the local inhabitants, Councillors, Longshore Fishermen, W.I. Members, Wildfowlers, all vocal in defence of the Environment, whilst, outside the hall, banners proclaimed in good Churchillian english "We will fight them on the beaches" .. Possibly the Appellants saw that the Cefn Sidan Sands would be an unhealthy place for their money for they made but a poor case (especially noticeable was it that they had not done their ecological homework).

We had to await the Inspector's decision and the Minister's confirmation until April 9th 1976 when the good news came officially from the Llanelli Borough Council with the delightfully unofficial comment "I am sure you share our elation".

I.M. Vaughan.