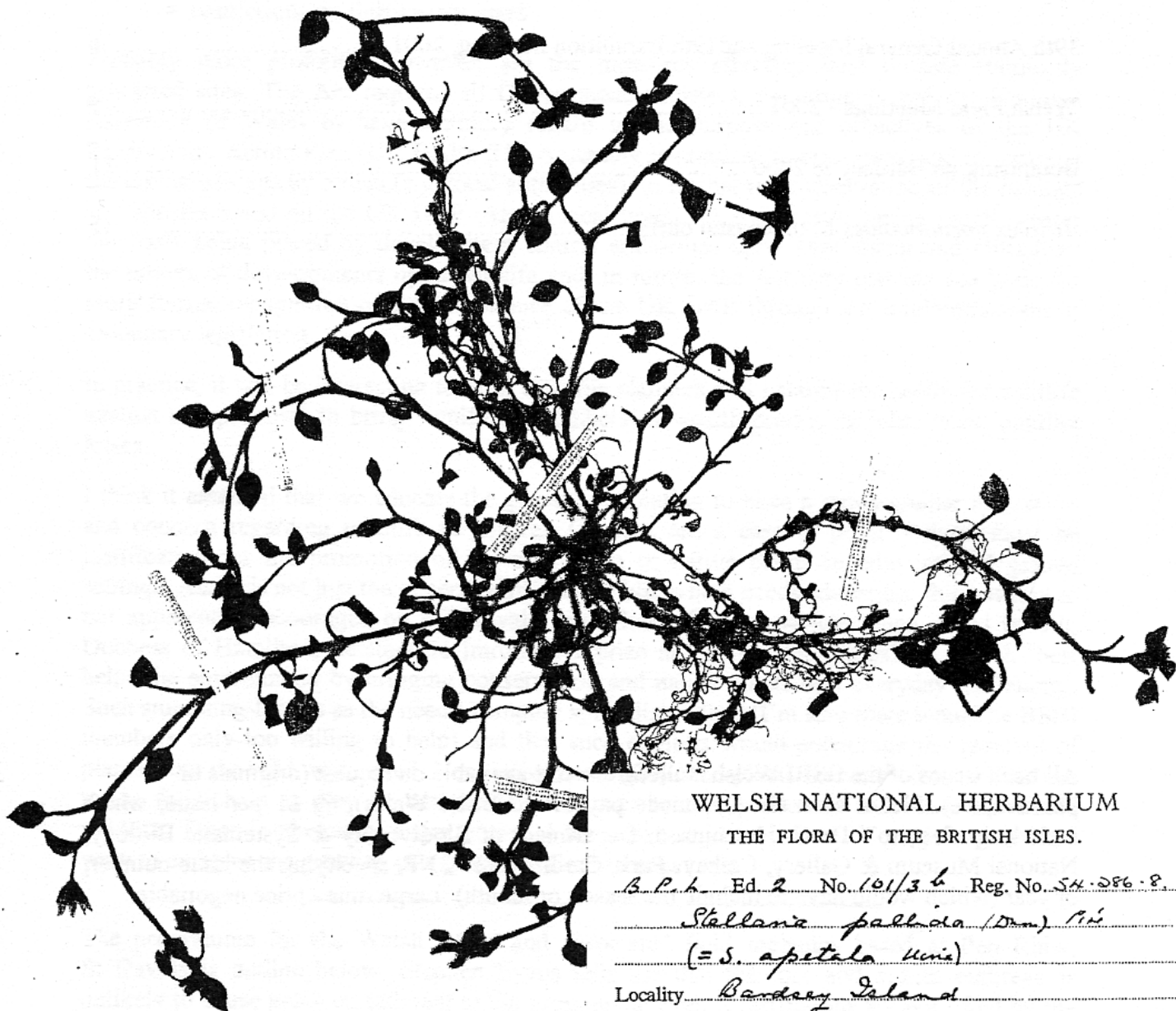


BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH BULLETIN

Editors : R. D. Pryce & G. Hutchinson

No. 69, SUMMER 2001



WELSH NATIONAL HERBARIUM
THE FLORA OF THE BRITISH ISLES.

B.P.H. Ed. 2 No. 101/36 Reg. No. SH.286.8.

Stellaria pallida (Dum.) P.H.

(= *S. apetala* Urie)

Locality *Bardsey Island*

SH.12 Vice-County *49 Caern.*

Collector *Conn. P.M. Benoit* Date *Apr. 1954*

National Museum of Wales

Department of Botany

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All back issues of the BSBI Welsh Bulletin are still available on request (originals or photocopies). Please send cheque (made payable to BSBI Wales), @ £1 per issue, which includes p & p, to - Dr G. Hutchinson, Department of Biodiversity & Systematic Biology, National Museum & Gallery, Cathays Park, Cardiff CF10 3NP, specifying the issue number, or year (which would have to include the season or month). Large runs - price negotiable.

EDITORIAL

We have yet to see tested the effects of the greater protection afforded to our wildlife by the Conservation and Rights of Way Act, which came into force at the end of January. Existing protected sites (Sites of Special Scientific Interest) are afforded much greater protection than previously, including

- a duty on public bodies to secure positive management on SSSIs in their control
- means to refuse to allow damaging activities not currently subject to regulation
- amendments to permitted developments rules
- rights to secure enforcement of positive management, etc
- tenants and licensees to be treated the same as owners/occupiers
- more flexible compulsory purchase powers
- restrictions on third party users

Probably more profound, however, are the measures affecting land outside statutorily protected sites. The Act requires all Government ministers, departments and the National Assembly of Wales to have statutory regard to the purpose and objectives of the UK Biodiversity Action Plan (UK BAP). The Assembly is required to take steps, and to promote the taking of steps by others (e.g. local authorities), to further the conservation of the habitats and species listed on the UK BAP. At the local level, we are already seeing much greater emphasis being placed by development control authorities upon minimising and mitigating the effects of developments upon wildlife and, in future, the Act may provide the basis for more formal recognition of the importance of the UK BAP through the implementation of secondary legislation.

In practice, it will be interesting to view how the planners will balance the needs for wildlife against any proposal to bring significant numbers of wealth-producing jobs, when conflict arises.

I think it essential that we educate the general population to have a much greater awareness and concern regarding wildlife in general. Gardens are a case in point – there must be justification for the promotion of the cultivation of native plants in conventional garden settings. And it is not just the general gardening public which needs education: this concept is not apparently encouraged by the Royal Horticultural Society which, when asked by Jill, Duchess of Hamilton, declined to introduce a prize at Chelsea for the exhibit which ‘best helps the environment by bringing conservation and native plants into everyday gardening’. Such stumbling-blocks as the need to employ specialist judges (I’m sure there would be BSBI members only too willing to help) and that such exhibits would encourage the removal of plants from the wild, were cited. Non-native and highly bred plants are very often of little use to the food-chain as they do not provide resources to support insects and other associated wildlife. There is obviously major potential for enhancing biodiversity if gardening fashion were to embrace the growing of a greater scale than at present.

The programme for the Welsh AGM and associated field meetings based at Pen Rhiw, St Davids is outline below. Stephen Evans tells me that the foot and mouth outbreak is unlikely to cause much curtailment to the programme even if restrictions are not lifted by the time of the meeting on 8-11 June. Other programmed Welsh field meetings may be effected to a greater or lesser extent so please ensure that you contact leaders in good time, in order to check on the current arrangements.

I look forward to seeing you at the AGM and hope that present FMD restrictions are not affecting your botanical activities too much.

Richard Pryce, 14 May 2000

ANNUAL GENERAL MEETING, 2000

Saturday 10 June 2000 at 17.45

The 38th AGM and 18th Exhibition Meeting of BSBI Wales was based on the Brambell Building of the University, Bangor between the 9 - 11th June 2000.

Some 74 members attended all or part of the weekend, with 35 or so coming from outside Wales. Reports of the Exhibition and Field Meetings appeared in the previous issue of the *Bulletin* or *BSBI News*.

Introduction: The Chairman, Richard Pryce, welcomed all the participants. He and the Committee wished to thank the many members and friends, who gave talks, exhibited material, lead the field meetings, or helped with the general organisation of the event.

Apologies for absence: Mary Briggs, Ailsa Burns, RG Ellis, QON Kay, Chris and Mike Porter.

Minutes of 1999 AGM: Published in *Welsh Bulletin* 66: 5-7.

The minutes of the AGM of 21 August 1999 were approved.

Matters arising: None.

Report of Chairman

The Chairman reminded members that the Wales AGM in 1999 had been held at Trinity College, Carmarthen. It had been very successful with a good attendance of Welsh members and those resident in England. A full report had appeared in *BSBI News*. Nine other Field Meetings had been arranged in Wales during 1999 with a main aim of recording for Atlas 2000.

During the year the Committee had much discussion about Atlas 2000 and beyond and the effectiveness of the various computer recording software packages and these are to be considered further at an extended meeting in October. There is also a need to find a way of licensing vice county recorders to copy Ordnance Survey maps for botanical recording and survey use without infringing copyright.

The Wales meetings programme and the production and distribution of the *Welsh Bulletin* continued to be self-financing throughout 1999 and again it was not necessary to request financial support from central funds.

Report of Secretary: In RGE's absence this was read by Richard Pryce.

"Firstly may I offer my apologies at being unable to be with you here in North Wales this year. My confusion with dates resulted in my booking a holiday to Prague over the period of this AGM.

Following the elections at the 1999 AGM Nigel Brown retired after many years' service on the Committee and Ian Bonner joined the Committee. At the Autumn Committee meeting it was decided to invite Andy Jones, the Flowering Plant specialist with CCW, to attend meetings as an observer.

Two issues of the *Welsh Bulletin* have been produced since the last AGM. There are now joint editors, (George Hutchinson has now joined the team) and he and Richard are again to be congratulated on the high standard that they have maintained with the *Bulletin*. George has also put in his usual tremendous amount of work in planning and

producing the *Bulletin*. We hope that members will continue to send in notes and articles for publication.

Seven field meetings have been arranged in Wales during 2000 in addition to those over this weekend. They aim to be relaxing in contrast to the pressures of recording for Atlas 2000! We thank David Humphreys for a splendid programme and all the leaders who put in a tremendous amount of work.

In 2001 we hope the AGM will be in Pembrokeshire and to have a programme of traditionally lead meetings to areas of interest and tetrad recording for County Floras in many of the Welsh counties.

I should finally like to thank the various organisations that have helped the Society in Wales over the last twelve months. Including CCW for the use of its offices at Bow Street and Llandrindod Wells for Committee Meetings; the National Museum and Gallery of Wales for secretarial assistance, for production of the *Welsh Bulletin* and for its help in many other ways; Nigel Brown and the School of Biological Sciences here in Bangor for looking after us so well and finally to Ian Bonner and his team for organising this meeting."

Treasurer's Report: The Annual Statement of Accounts for 1999 were tabled and the Committee recommended their approval. The financial statement was approved and the Treasurer thanked for his work.

Election of Officers and Committee Members: (list distributed with the agenda).

In the absence of any nominations Dr PS Jones agreed to continue as Honorary Treasurer and Dr DR Humphreys as Honorary Field Meeting Secretary.

Ian Bonner was appointed Honorary Minuting Secretary

Arthur Chater, Stephen Evans, George Hutchinson, Quentin Kay, Wendy McCarthy and Mike Porter were due to retire under Rule 5 of the Constitution and were eligible for re-election. All had indicated their willingness to stand again and, in the absence of any other nominations, all were duly re-elected for a period of two years.

Following the election of officers and members of the Committee at the AGM the composition for 2000/2001 is:

Chairman and Representative on Council	RD Pryce
Vice-Chairman	Dr G Wynne
Secretary	RG Ellis
Treasurer	Dr PS Jones
Field Meeting Secretary	Dr DR Humphreys
Minutes	IR Bonner

Committee Members

AO Chater	P Day
SB Evans	TG Evans
Dr G Hutchinson	Dr QON Kay
Mrs WN McCarthy	J Phillips
M Porter	Mrs EG Wood
JP Woodman	

A Jones (CCW Rare Plants Officer) co-opted to the Committee

RG Woods (CCW Observer).

AGM and Exhibition Meeting 2001: SB Evans reported that he had found a possible venue near St Davids, Pembrokeshire that could accommodate 34 residents and had a suitable

meeting facility at a cost of £35 per day, full board, based on a minimum of 15 staying each night. Packed lunches and dinners can be provided for non-residents. All food is vegetarian. Some 13 members expressed interest and it was agreed that Stephen be asked to continue with the arrangements. There are a range of alternative hotels, guesthouses and campsites close by and an abundance of good botanical sites to visit.

The Chairman asked that suggestions for venues for Field Meeting in 2001 be passed to Dr Humphreys.

Any Other Business: None.

IR Bonner

39th ANNUAL GENERAL MEETING 19th EXHIBITION MEETING

Friday 8th – Monday 11th June 2001

Pen Rhiw, St Davids, Pembrokeshire (GR SM750259)

The weekend is devoted to exploring the flora of the St Davids peninsula and that of the county of Pembrokeshire. This most westerly county of Wales is not a normal venue for the AGM because of its remoteness and the shortage of suitable residential accommodation. For this reason it was decided to offer 3 days of field excursions at a time when the flora is at its most stunning. Welcome to Pembrokeshire.

Visits will be made to the sea-cliffs, wet heaths and fens of the St Davids peninsula over the 4 days. The intention is to have an optional walk around the city on the Friday evening after dinner, visit Dowrog Common on the Saturday morning before the AGM, explore St Davids Head all day on Sunday and finish with a coastal walk from Porthclais to St Justinians on the Monday.

Accommodation will be in 22 bedrooms, all but two with wash basins. There are 11 single bedrooms, 3 doubles, 7 rooms for two, sleeping in comfortable bunk beds and 1 room with 3 beds. Rooms will be allocated giving a priority to those intending to stay for two or more nights.

Dinner will be at 6.30 p.m. For non-residents field excursions will start from Pen Rhiw at 9.30 a.m. Saturday, Sunday and Monday mornings.

Pen Rhiw – tel. 01437 721821 – is a former Priory of early Victorian age run as a residential centre for groups. It is on the north-western outskirts of the city 10 minutes on foot from the Cathedral. Detailed directions will be supplied, along with the full programme, including notes on 'ticked' field excursions, when bookings are confirmed in early May.

Inclusive costs are £35 per night for bed & breakfast, dinner, packed lunch and access to the all important tea urn. **Every meal will be vegetarian.** Non-residents are invited to join the main party, subject to a ceiling of 70 in total, for the buffet supper on Saturday. This will follow the AGM and illustrated talks, and will consist of a main dish a minimum of 3 side dishes, dessert and coffee / tea, at a cost of £8 for non-residents. It will be self-service and held in the converted Priory chapel. Packed lunches are also available for non-residents at £2.50.

For those who wish to make their own arrangements there is a wide choice of hotels, guest houses and camping sites nearby. Examples are the Old Cross Hotel (01437 720387) run by Paul Lynas the chairman of the Dowrog Common Nature Reserve Management Committee and Hendre Eynon caravan and camping site (01437 720474) run by Ian Jamiieson the honorary warden for the reserve. The splendid new St Davids National Park Visitor Centre (01437 720392) can supply full details of local accommodation which should not be overbooked in early June.

Pen Rhiw will be available, not only to those staying at the former Priory but to all members who have booked, from 3pm Friday until 10.30am Monday.

If you have not already done so there is still time to book exhibition space. Please contact Stephen Evans, Glan-y-mor, Dinas Cross, Newport, Pembrokeshire. SA42 0UQ.

Tel: 01348 811539

E-mail: - glanymor.dinas@virgin.net

PROGRAMME

FRIDAY June 8th – St Davids City – Leader S.B. Evans

- 5 - 7pm Registration. tea and coffee available
- 6.30pm Self-service dinner for residents
- 7.30pm Meet at Pen Rhiw for a walk around the City stopping off at some of the small National Trust owned commons. Comfortable footwear sufficient.
Map and details sent to those who book.

SATURDAY June 9th – Dowrog Common Nature Reserve – Leader S.B. Evans

- 9.30am Meet at Pen Rhiw for the short drive to Dowrog Common (Map and details sent to those who book). Paul Lynas, the Chairman of the Dowrog Management Committee (Wildlife Trust West Wales) will welcome members to the wet heath and fen nature reserve. Waterproof footwear essential.
Please no dogs on the excursion.
Because of parking restrictions it will be essential to share vehicles.
Residents, and others who have ordered, to collect packed lunches from Pen Rhiw.
- 3pm Return to Pen Rhiw for tea and coffee and Welsh AGM & Exhibition Meeting
- 3.15pm Short Meeting of Committee for Wales
- 3.45pm **Welsh AGM**
- 4.30pm Illustrated Talk on the Flora of Pembrokeshire by Stephen Evans
- 7.30pm Self-service buffet supper for residents and non-residents
Followed by perusal of exhibits; informal slide shows (PLEASE BRING SLIDES); and an opportunity to mingle with other members.

SUNDAY June 10th – St Davids Head – Leader S.B. Evans

- 9.30am Meet at Pen Rhiw for the short drive to Whitesands Car Park. Parking fee payable so sharing advised.
Residents, and those who have ordered, to collect packed lunches from Pen Rhiw.
The day will be spent on the sea-cliffs and heathland of St Davids Head (map and details sent to those who book).
Parts of St Davids Head are steep and dangerous. Stout footwear is essential.
There are toilets at Whitesands car park.
Please no dogs on the excursion.
- c.4.30pm Return to car park.

Self-service dinner for residents followed by free evening

MONDAY June 11th – Cliffs between Porthclais and St Justinians – Leader S.B. Evans.

- 9.30am Meet at Pen Rhiw for the short drive to Porthclais car park.
Those who have ordered packed lunches to collect from Pen Rhiw.
The day will be spent on the sea-cliffs and heathland between Porthclais and St Justinians (map and details sent to those who book).
Drivers will be shuttled from St. Justinians back to collect their cars to save a return walk.
For those who only wish to walk in the morning a return shuttle from the halfway point is planned, subject to any foot and mouth restrictions.
Alternatively, as the walk will be on the coast path anyone will be free to retrace their steps to depart early.
Parts of the rocky coast are steep and dangerous. Stout footwear is essential.
There are toilets at Porthclais but not at St. Justinians.
Please no dogs on the excursion.
- c.3.30pm Return to Porthclais, optional stop off at Trefeiddan Moor, *en route*, and disperse.

FIELD MEETINGS PROGRAMME 2001

SATURDAY 19th MAY
LLANGOLLEN, DENBIGHSHIRE (v.c. 50)
Leader: Mrs. J.A. Green

Meet at 11.00 in car park just North of Worlds End SJ232484. This is 7km N of Llangollen on minor unclassified road (signed Minera). Calcareous marsh, limestone cliffs and scree.

Please send bookings to Jean Green, Coed Duon, Tremeirchion, St Asaph, Clwyd LL17 0UH.

SATURDAY 26th MAY
LOGGERHEADS, FLINTSHIRE (v.c. 51)
Leader: Dr G. Wynne

Meet at 11:00 at Loggerheads Country Park, SJ199625, 3 miles from Mold on A494 to Ruthin. This will be a linear walk along the limestone, with a range of habitats wet and dry, and return transport arranged after 2 or 4 miles.

Please send bookings to Goronwy Wynne, Gwylfa, Lixwm, Holywell, Flintshire CH8 8NQ

SATURDAY 30th JUNE
TWYN FFERAM, RHOSNEIGR, ANGLESEY(v.c. 52)
Leader: Mr N.H. Brown

A meeting to record the flora of the varied coastal dune, fen and freshwater habitats, with particular emphasis on collecting data on the locally rare and scarce species.

Meet at 10.30 at the car park at Tywyn Fferam, SH330716, adjacent to the A4080, between Aberffraw and Rhosneigr. Bring picnic lunch and stout/waterproof footwear.

Please send bookings to Nigel Brown, Treborth Botanic Gardens, Bangor, Gwynedd, LL56 2RQ

SUNDAY 1st JULY
ROCK, MONMOUTHSHIRE (v.c. 35)
Leader: Mr T.G. Evans

Meet at 10.30 at Car Park opposite Garage, ST179987. Colonised coal waste.

Meet at 14.15 at Pontllanfraith, ST156964. Wet heath.

Please send bookings to Trevor Evans, La Cuesta, Mounton Road, Chepstow, Monmouthshire NP16 5BS.

SATURDAY 14th JULY
ABERLERI FIELDS and CORS FOCHNO, CARDIGANSHIRE (v.c. 46)
Leader: Mr A.O. Chater

A meeting to explore the sedge-rich pastures and ditches at Aberleri which are rapidly increasing in species since CCW reduced the grazing and raised the water table. We will also visit another part of Cors Fochno, east of the Afon Leri, and will hope to monitor *Rhynchospora fusca* there. Not very strenuous, but wellingtons essential.

Meet at 11:00, at SN609922, on waste ground parking area on west side of railway at entrance to the Cambrian Coast Holiday Park, Ynyslas.

Please send bookings to Arthur Chater, Windover, Penyrangor, Aberystwyth Ceredigion SY23 1BJ Tel: 01970-617409

SATURDAY 28th JULY to TUESDAY 31st JULY
GLYNHIR MANSION, LLANDYBIE, CARMARTHENSHIRE (v.c. 44)

Leader: Mr R.D. Pryce

The annual Carmarthenshire Recording and Monitoring Weekend Programme:-

Saturday 28th July. Meet at Glynhir for lunch at 13:00. After lunch recording and monitoring in the Llandybie area.

Sunday 29th July. Recording and monitoring in the Talley area.

Monday 30th July. Recording and monitoring in the Carmarthenshire hinterland.

Tuesday 31st July. Disperse after breakfast: tetrad recording for those who wish.

Glynhir is located about 2km east of Llandybie on the western flank of the Black Mountain at SN640151. The River Loughor runs through the estate and at one point plunges over a 10m waterfall into a rock gorge. Although *Dryopteris aemula* was rediscovered in the gorge during the 2000 recording meeting, the previously recorded *Hymenophyllum tunbridgense* and *Asplenium trichomanes* ssp. *trichomanes* were not refound as the river level was too high to permit access. This task remains for the 2001 meeting – there will be ample opportunity in the timetable to visit the site – especially for those with waders! Several large trees of *Tilia cordata*, *Carex spicata* and × *Festulolium loliaceum* were also discovered in and around the grounds in 2000 and there remains ample scope for further discoveries in the vicinity.

The mansion is run by the Jenkins family who pride themselves on their hospitality and the provision of first class facilities including a large common room for evening discussion and specimen determination. The cost of the weekend accommodation will be approximately £120.00 inclusive, but we regret that there can be no reduction for participants who wish to stay for only part of the meeting.

We also regret that accommodation will not be available for the Friday night although there are several bed and breakfast establishments in the area.

As accommodation is limited, **early booking is essential** in order to secure your place.

Please apply to the leader as soon as possible and in any case no later than 31st January 2001. Mr R.D. Pryce, Trevethin, School Road, Pwll, Llanelli, Carmar, SA15 4AL. Tel./ Fax: 01554 775847 E-mail: PryceEco@aol.com

BOTANISING ON BARDSEY IN 2000

Bardsey Island, Ynys Enlli, lies some 3km off the tip of the Llŷn peninsula in Gwynedd and for plant recording purposes forms part of vice-county 49 (Caernarvonshire).

The Island is about 2.5km long and 1km wide, extending to some 180ha. It is mainly composed of a complex mixture of old (Pre-Cambrian age) rocks - a slaty matrix with occasional outcrops of white quartzite, granite and limestone.

The eastern half rises steeply from the sea to 166m. The gently sloping western half is largely covered in glacial drift and divided by stone and earth cloddiau (field banks) into a patchwork of about 130 small fields, willow beds, ponds and ditches or small streams.

Most of the lowland shows signs of former cultivation and agricultural improvement. The Island is currently grazed by about 400 sheep and a small number of Welsh black cattle.

Some fields are shut up for hay and others are now ploughed to grow oats and turnips and to enable arable weeds to make a welcome return. Part of the north west coast is closed to all stock for most of the year to allow for heathland regeneration. The agricultural management is carried out as part of an Environmentally Sensitive Area (ESA) agreement.

There are some dozen houses and other buildings, many with gardens or yards, which are cultivated to varying degrees.

Like many islands Bardsey has attracted botanists over the years, with the first documented visit by John Ray in 1662. Recently species lists have been compiled in 1956, Agnew *et al.*; 1986, Prosser *et al.*; 1996, CCW and 1998, Emily Meilleur; with an overall list of Flowering Plants and Ferns by Nigel Brown and Ann Conolly last revised in 1994. A more comprehensive review of the flora of Bardsey by Ann Conolly is contained in P.M. Rhind *et al.*

We were asked to make a series of visits to the Island to produce a series of annotated lists for about 40 pre-defined ecological/geographical units and a total list of the plants seen in 2000. These would be used towards a new checklist or flora being produced by Nigel Brown, Ann Conolly and Peter Hope Jones.

After a reconnaissance visit in March we made three visits of a week each, in late April/early May, late June/early July and early September. In almost every case we were blessed with calm crossings and fine weather. In all about 350 taxa were noted including those considered native to Bardsey, some species native to Britain but introduced on to Bardsey, weeds of cultivated land - now classed as "archaeophytes" and alien species that appeared to be established or surviving in areas not currently being cultivated.

We list below some of the species we thought were interesting, or were additions (indicated with an asterisk *) to the Systematic List of Vascular Plants of Bardsey Island ed.2 November 1994 by N.H. Brown and Ann P. Conolly. Locations are given either to the nearest named feature on the 1:25,000 Ordnance Survey map, or to the field number from the 1:2,500 OS map and to the 1km grid square.

Ophioglossum azoricum C.Presl (Small Adder's-tongue). Specimens were collected from OS 53, just north-west of Plas Withy, SH1121 and OS 124, to the north of the Lighthouse, SH1120. They were sent to the Natural History Museum, provisionally identified as this species by F.H. Rumsey and stored with other Bardsey material awaiting molecular analysis.

Polypodium cambricum* L. (Southern Polypody). A specimen from a base rich outcrop on the north-east side of the mountain, SH1222, was confirmed by R.H. Roberts, **herb. I.R.B. This species was also observed on another nearby basic outcrop.

Polypodium vulgare is the widespread species on suitable rock outcrops on Mynydd Enlli.

Asplenium trichomanes subsp. *quadrivalens* D.E.Mey (Maidenhair Spleenwort). A specimen collected by Agnew *et al.* in 1956 and deposited in the herbarium at Bangor University has been determined by J.D. Lovis as belonging to this taxon. All specimens seen in 2000, whether on natural rock outcrops or walls, seemed to be this subspecies.

**Dryopteris affinis* (Lowe) Fraser-Jenk. subsp. *affinis* (Scaly Male-fern). Specimens from a wall near the abbey ruins, SH1122 and from rock outcrops on the north-east side of Mynydd Enlli, SH1222, were determined by T.D. Dines.

Stellaria pallida (Dumort.) Crép. (Lesser Chickweed). Sandy area above the shore at Solfach, SH1121, with *Urtica dioica* and *U. urens*.

Stellaria graminea L. (Lesser Stitchwort) Recorded in 1933 and then not again until Emily Meilleur found a single plant west of Pen Cristin in 1998. In 2000 it was seen in OS 68, west of Cristin and OS 56, under bracken just west of Plas Withy, SH1121; OS 177, between Ty Pellaf and Pen Cristin, SH1221; under bracken on the north east side of Mynydd Enlli along with *Stellaria holostea* and on the west side of the mountain, above the flushes, again under bracken, SH1222.

Spergularia rubra* (L.) J.& C. Presl (Sand Spurrey). By pathsides and cattle-trampled areas between the abbey complex and the north coast at Ogof Nant, SH1122 & 1222. Confirmed A.O. Chater, **herb. I.R.B.

**Polygonum arenastrum* Boreau (Equal-leaved Knotgrass). Tracks and field gateways.

**Polygonum aviculare* L. (Knotgrass). Cultivated ground and tracks.

**Rumex crispus* L. subsp. *crispus* (Curled Dock). Widespread, field edges and waste ground.

**Rumex crispus* subsp. *littoreus* (J. Hardy) Akeroyd (Curled Dock). Only seen on the upper part of a boulder beach to the west of the lighthouse, SH1120.

Salix cinerea* x *S. aurita* = *S. x multinervis* Doll (a hybrid willow). Cristin Withy, SH1121. Determined by R.D. Meikle, **herb. I.R.B.

Salix viminalis* x *S. caprea* = *S. x sericans* Tausch ex A. Kern. (Broad-leaved Osier). Plas Withy and Ty Pellaf Withy, SH1121. Both confirmed by R.D. Meikle, **herb. I.R.B.

Salix cinerea L. subsp. *oleifolia* Macreight (Grey Willow). Carreg Withy, Cristin Withy, Nant Withy, Plas Withy, SH1121. Confirmed from Cristin and Nant by R.D. Meikle, **herb. I.R.B.**

Salix caprea x *S. cinerea* = *S. x reichardtii* A. Kern. Ty Pellaf Withy, SH1121. Confirmed R.D. Meikle, **herb. I.R.B.**

Rorippa nasturtium-aquaticum x *R. microphylla* = *R. x sterilis* Airy Shaw (Hybrid Watercress). Ditch west of Carreg Fawr, SH1121, **herb. I.R.B.** Most of the watercress with few developed seeds were probably just *R. nasturtium-aquaticum*; we failed to find *R. microphylla*.

**Barbarea verna* (Mill.) Asch. (American Winter-cress). In grounds of Carreg Bach, SH1122.

Potentilla erecta* x *P. anglica* = *P. x suberecta* Zimm. (a hybrid Tormentil). On cloddiau north of the abbey complex, SH1122 and surrounding the *Schoenus* field (OS92) SH1121. Confirmed A.O. Chater, **herb. I.R.B.

Potentilla anglica* Laichard (Trailing Tormentil). A single patch on south facing coastal bank below Ffynnon Dolysgwydd, SH1121, **herb. I.R.B.

Potentilla anglica* x *P. reptans* = *P. x mixta* Nolte ex Rchb. (Hybrid Cinquefoil). Cloddiau around OS28, west of Carreg Bach, SH1122; around fields west of Cristin and OS85, one of the hay fields west of the lime-kiln, SH1121, **herb. I.R.B.

**Rosa canina* L. x *R. caesia* subsp. *glauca* (Nyman) G.C.Graham & Primavesi (a hybrid Rose) On the bank at the northern end of Plas Withy, SH1121. Determined by A.L. Primavesi.

Trifolium occidentale* Coombe (Western Clover). In short species rich turf in OS93 close to where the stream discharges into the sea, SH1121 and in similar habitat east of Ty Pellaf, but at about 60m above the sea, SH1221. Both confirmed by C.D. Preston, **herb. I.R.B.

Myosotis ramosissima Rochel (Early Forget-me-not). First recorded in 1998 by Emily Meilleur in Plas Bach garden. In 2000 it was seen on the wall by the road between Cristin and the abbey complex, SH1121 and, more interestingly, in the thin turf on the calcareous outcrops on the north-east side of Mynydd Enlli, SH1122.

Potamogeton natans L. (Broad-leaved Pondweed). In the "new" pond in OS47, west of Carreg Fawr, and in the pond in OS84, east of Cristin Withy, both in SH1121.

Juncus ambiguus* Guss. (Frog Rush) In seepages just above high water mark on the west coast just south of the bird hide on Penrhyn Gogor, SH1122 and in OS122, just south of Solfach, SH1121, **herb. I.R.B.

**Luzula multiflora* (Ehrh.) Lej. subsp. *multiflora* (Heath Wood-rush). In the *Schoenus* field (OS92), SH1121.

Festuca pratensis* Huds. (Meadow Fescue). Edge of field OS 92, southwest of Ty Pellaf, SH1121, **herb. I.R.B.

Glyceria fluitans x *G. notata* = *G. x pedicellata* F.Towns. (Hybrid Sweet-grass). Margin of pond close to St Mary's Abbey, SH1122.

Taraxacum (Dandelions). All determined by Mike Porter.

Note: most of the small specimens from closely grazed turf were not really identifiable without being transplanted and grown on.

Sect. Erythrosperma

*15 *T. lacistophyllum* (Dahlst.) Raunk. Bank on the south-east side of Mynydd Enlli, near the *Trifolium occidentale* site, SH1221. Bank below the School building, SH1121, **herb. I.R.B.**

*16 *T. oxoniense* Dahlst. Short turf by the coast east of the Lighthouse, SH1120. Field bank south of Ty Pellaf, SH1221, **herb. I.R.B.**

Sect. Celtica

*72 *T. nordstedtii* Dahlst. Rock ledge above Ogof Gaseg, near the *Thalictrum minus* location, SH1221, **herb. I.R.B.**

Sect. Ruderalia

*131 *T. ekmanii* Dahlst. Garden of Carreg Fawr, SH1121, **herb. I.R.B.**

Sect. Hamata

87 *T. hamatifforme* Dahlst. Field bank south of Ty Pellaf, SH1121, **herb. I.R.B.**

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Ian Bonner, Cae Trefor, Tyn y Gongl, Anglesey LL74 8SD

John Brummitt, 69 Cambrian Drive, Colwyn Bay, Clwyd LL28 4TA.

ATRIPLEX PORTULACOIDES L. ON COASTAL CLIFFS

In 1984, the results of a survey appeared in *Watsonia* **15**, 95-103 (Akeroyd & Preston). This showed that *A. portulacoides* (*Halimione portulacoides*) was not confined to saline mud and sand but also grew on rocks and sea-cliffs at many of its existing sites. At the time of survey no record was available from Carmarthenshire (v.c. 44) even though the neighbouring Glamorgan (v.c. 41) and Pembrokeshire (v.c. 45) yielded a handful between them.

However, that omission can now be rectified as, in 2000, one large plant was found some 10m above the beach on cliffs at Llansteffan (Scott's Bay SN348099). Other records will no doubt follow. The question is, have the Floras prior to 1985 simply overlooked this habitat or is there a change taking place? Or maybe it has sensed rising sea levels and is, very wisely, taking to higher ground!

Tony Lewis, 12 Cannisland Park, Parkmill, Swansea SA3 2ED