

BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH BULLETIN

Editors : R. D. Pryce & G. Hutchinson

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WELSH NATIONAL HERBARIUM

THE FLORA OF THE BRITISH ISLES

Frankenia laevis L.

Locality..... Growing on a small hillock, 1 1/2 ft. diam.
..... about 9" high. Several of these stand in a mud
..... creek possibly under water at times.

Collector..... Lars J. Larsen..... Date September 1979

National Grid..... SH 37..... Vice-County..... 52

FE/114/..... Ed..... 1/5..... No..... Reg. No..... 79.748.1

National Museum of Wales

Department of Botany

Life-size photocopy of *Frankenia laevis* (Sea-heath) at NMW.
It is new to Caernarfonshire (see p. 7).

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EDITORIAL

While monitoring *Mentha pulegium* (Pennyroyal) at its Afon Tywi sites at Llandeilo - following Iolo Williams' footsteps in his recent television programme (but leaving him to wear the shorts!), Kath and I were struck by the dominance of *Rubus armeniacus* cv. Himalayan Giant (a garden blackberry) which has colonised the railway cuttings and station surroundings. Similarly, while recording along the Llanelli coast, we found the plant to be very abundant, particularly on former industrial sites and in vacant urban land. Further Himalayan Giant populations are known in other urban areas in the county including both Carmarthen and Llandovery and we are left with the impression that it has become very much more abundant than we can remember in past years. We wondered whether it had been encouraged by the previous weeks of hot, dry, sunny weather, or whether it just seemed more prominent than usual as we had had the opportunity of prolonged and uninterrupted fieldwork in the fine weather. I wonder whether other botanists have noticed a similar apparent increase?

This blackberry is very easily identified and, quoting from Alan Newton's treatise (Eedes & Newton, 1988), it is '*usually distinguished from related species without difficulty by its large size. Stem high-arching, shining; prickles strong, broad-based; leaves digitate, large; leaflets glabrous above, chalky white beneath; flowers large, cupped; petals broad, pink; stamens long; fruit large*'. It flowers early and quickly forms dense patches, overwhelming and suppressing other plants that get in its way, including other brambles. Himalayan Giant was widely planted in the Second World War and continues to be available from garden centres and high street shops and once in the garden is difficult to keep under control because of its rampant growth and prolific seeding, its spread assisted by birds.

In our opinion there is considerable potential for it to become as serious a threat to native species as *Fallopia japonica* (Japanese Knotweed) in derelict-land and other disturbed-ground situations. The problem, of course, is exacerbated because, to laymen, contractors and land managers, all brambles look alike. Alarmingly, this also applies to most conservationists and biodiversity practitioners as there is no easily available description of the plant. Indeed, although mentioned by Stace (1997), he does not describe it in detail, neither is it mentioned in other standard floras nor in the new cd-rom flora (Stace *et al.*, 2004), which, of course, is based on Stace.

Another alarming introduction is *Hippophae rhamnoides* (Sea Buckthorn), also an aggressive colonizer and again, abundantly spread by birds. This is unwisely, but frequently specified by landscape architects in amenity plantings, particularly near the sea, as is the case along the new coast road in South Llanelli, because of its attractive grey foliage and orange berries and its ability to withstand the rigorous conditions. This species, of course, is responsible for the smothering and extermination of many uncompetitive duneland plants as is witnessed by its disastrous effects on, for instance, the Carmarthenshire dunes and the Newborough Warren dunes in Anglesey, following its planting in the 1930s by the Forestry Commission in order to stabilize the shifting sands.

Five to ten year old *Hippophae* plantings in South Llanelli are now spreading from their original shrub-beds and taking over the road verges and adjacent development land, while seedlings are becoming established away from the original sites, spread by foraging winter thrushes and other birds. Most favoured germination sites appear to be disturbed and unvegetated ground, particularly, aggregate-surfaced, levelled development plateaux, where the plants, once established, are likely to be a hindrance to development and ground maintenance in the future. Sea Buckthorn reduction has already been carried out by

Carmarthenshire County Council at their Pembrey Saltings Local Nature Reserve, (presumably at considerable expense), successfully creating a new duneland pond, a habitat not previously found at the site. But it is a constant battle and one that will be lost unless considerably more resources are pumped in, on a continual basis. One would think that the Council might have learnt its lesson but I'm afraid that one department doesn't speak to another and the experience does not appear to be passed-on.

By now, I guess that the Local Change fieldwork will be receiving its finishing touches around the country. There is still time for assistance should gaps be apparent, so I appeal to any recorders who are aware of any under-worked areas to contact Bob Ellis, the scheme's co-ordinator in order to enlist some help! Conversely, anyone who wishes to help outside their local patch could contact Bob who will be able to direct you to areas which need most attention. But when the field-recording is complete, the records still have to be transferred to Bob. I would wish to urge you to try to do this sooner rather than later as there is bound to be a bottle-neck in the autumn and Bob finishes his contract at the end of the year.

The Welsh Annual General Meeting programme is printed on page 5 and promises to be a first class event in a particularly attractive location. I hope that it will be a memorable occasion and I look forward to seeing many of you there. The remaining 2004 field meetings are listed on page 6, some of which are intended to help with Local Change, and all of which will provide an agreeable mix of social get-together, shared information, learning and enjoyment.

Incidentally, the Llandeilo *Mentha pulegium*, with which I started this story, appears to be doing well, despite the grazing cattle, and we found it at two additional 'sub-sites'. There is scope for further recording to ascertain whether it occurs at other locations on the riverbanks (the first Tywi record was made by George Hutchinson and myself on a shingle shoal at Llanwrda in July 1995).

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Richard Pryce
23 June 2004

42nd WELSH ANNUAL GENERAL MEETING & 22nd EXHIBITION MEETING

FRIDAY 23rd — SUNDAY 25th JULY 2004

at

**HAND HOTEL, LLANGOLLEN
DENBIGHSHIRE**

PROGRAMME

FRIDAY 23rd

5.00 - 6.00 p.m. Arrive

6.00 Evening meal

After meal A choice of short field meetings. Alternatively, one may wish to chat with Bob Ellis about MAPMATE difficulties or other computer problems.

SATURDAY 24th

10.00 Field Meetings: selection of sites. 5 planned, the walks fairly strenuous to very easy.

VERY IMPORTANT All back by 2.00!

2.00 Tea or coffee

2.30 Welsh Committee

3.00 Annual General Meeting - all invited

4.00 Talk by Dr Jean Green - The Plants of Denbighshire

5.00 - 6.00 Exhibits

Book Stall - Summerfield Books

6.00 Evening Meal

7.30 Annual Lecture - Prof. Clive Stace, Leicester

After the lecture - opportunity for 'indoor botanising' (bring plants for naming), informal slide show, and general socialising.

SUNDAY 25th

10.00 Leave Hand Hotel for MINERA, a village some 14 miles NNW of Llangollen. An area of old lead mines on limestone. If travelling from home meet at GR SJ 258 520 at 10.45, but if you have not booked please contact Sarah Stille.

If you wish to attend for all or part of the weekend and have not already booked, please contact:

Sarah Stille, The Quillet, Berwyn Street, LLANDRILLO, Corwen LL21 0TH
Tel.: (01490) 440 418 sarah.stille@virgin.net

CALENDAR OF MEETINGS 2004

Full details and procedure for booking are available in the BSBI Year Book for 2004. The list below was given in the last issue of the Welsh Bulletin.

- SAT 17th APR - GREAT ORME, CAERNARVONSHIRE (v.c. 49) – W. McCarthy
- SAT 19th JUN - GORS MAEN LLWYD & LLYN BRENIG, DENBIGHSHIRE (v.c. 50) –
J.A. Green
- SAT 26th JUN - TRAWSCOED, LLANUWCHLLYN, BALA, MERIONETH (v.c. 48) –
P. Benoit
- SAT 3rd JUL - NICHOLASTON & OXWICH BURROWS, GLAMORGAN (v.c. 41) –
A.S. Lewis
- SAT 10th JUL - RHOSGOCH COMMON & LLANBWCHLLYN, RADNOR (v.c. 43) –
R.G. Woods
- FRI 23rd - SUN 25th JUL - WELSH AGM and EXHIBITION MEETING, LLANGOLLEN
and associated field meetings (v.c. 50)
- SAT 31st JUL - SAT 7th Aug - GLYNHIR MANSION, LLANDYBIE,
CARMARTHENSHIRE (v.c. 44) – R.D. Pryce
- SAT 21st AUG - VALE OF GLAMORGAN, GLAMORGAN (v.c. 41) – J.P. Woodman
- SAT 11th SEP - YNYS-HIR RSPB RESERVE, CARDIGANSHIRE (v.c. 46) – A. Chater



1. Eveline Jenkins.



2. Annette Townsend

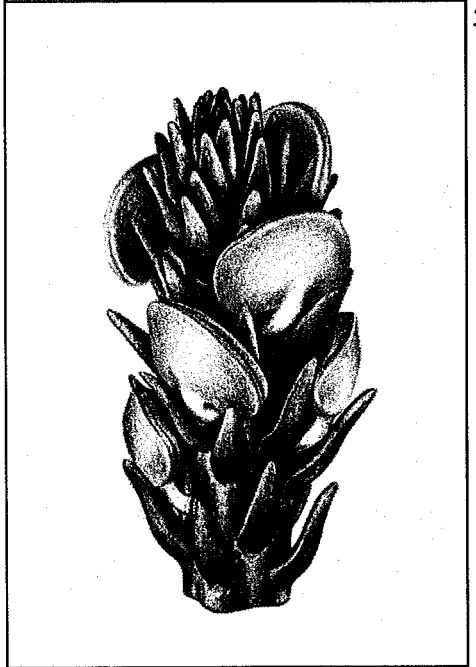


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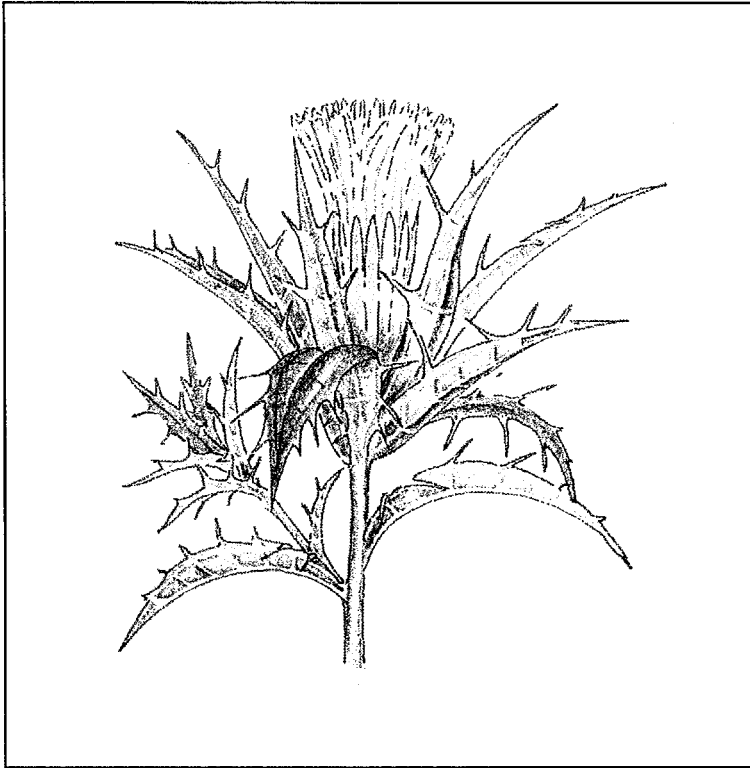
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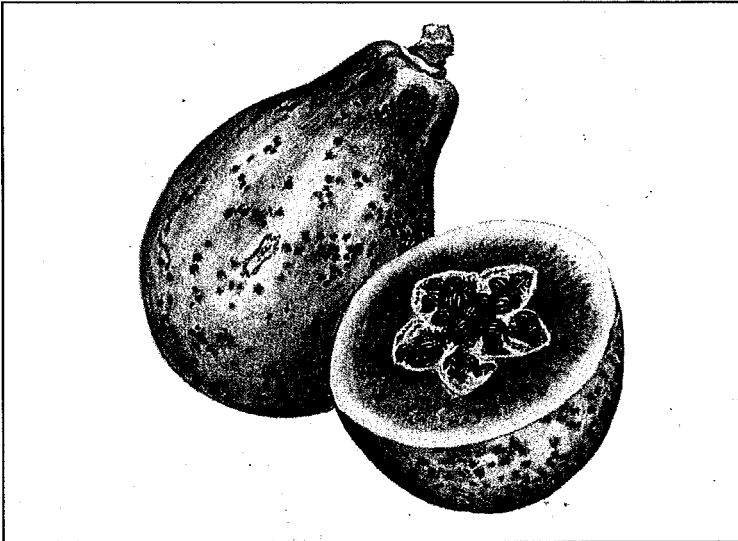
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3. *Sarcoscypha coccinea* (Scarlet Elf Cup) by Eveline Jenkins.
4. *Sinapis alba* (White Mustard). Watercolour by Dale Evans.
5. *Asteroxylon mackei*. A reconstruction of the primitive lycophyte, which was about 20cm in life. Watercolour by Annette Townsend (for Thomas, B.A. & Cleal, C. 'Invasion of the Land').
6. *Phegopteris connectilis* (Beech Fern). Watercolour by Dale Evans (for Woodland Fern poster).



7. *Carthamus* sp. (a species of safflower). Watercolour by Dale Evans.

8. *Mangifera indica* (Mango). Watercolour by Dale Evans (Exotic Fruit).



FRANKENIA LAEVIS (SEA-HEATH) IN CAERNARFONSHIRE (V.C. 49)

The discovery and rapid spread of *Frankenia laevis* on the saltmarsh at Rhosneigr in Anglesey (v.c. 52) is well known. However, how it first arrived there remains a mystery, and as it has recently been found on a sandy shingle beach at Llandudno's West Shore, I would like to describe the events which perhaps led to its introduction as a new vice-county record for Caernarfonshire.

At the foot of the western slopes of the Great Orme, there are some large, detached houses with extensive gardens sloping down to low boulder clay cliffs above the beach. While botanising along the beach at the base of the cliffs about ten years ago, I noticed that an overgrown bank in one of these gardens was covered with *Frankenia laevis*. The owner of the house told me that she thought that it was probably planted there many years before, though she did not know it by name.

The low cliffs are constantly being eroded by wind and heavy rain, and fences and even garden sheds have collapsed onto the beach in recent years. Three years ago, one of the house owners decided to try and protect his property, and the cliff below his garden was shored up with massive boulders and heavy-duty wire caging. The boulders were initially unloaded onto the shingle beach about half a mile away, and at very low tide huge lorries transported the boulders along the sand to the cliff. When the work was completed, the shingle beach was cleared up and returned to normal.

The following summer, (2001), there was a profusion of *Tripleurospermum maritimum* (Sea Mayweed) on the beach and it was while I was admiring this display that I discovered two small plants of *Frankenia*, and this autumn, I counted a total of fourteen plants. I assume that seeds from the plants in the overgrown garden, which is between the now protected cliff and the shingle beach, were somehow picked up in the tyre treads of the lorries and deposited on the beach. So, in just two years, the population has become thoroughly naturalised and unless exceptionally high tides wipe it out, I expect *Frankenia* will continue its rapid spread here just as it did at Rhosneigr.

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THREE GENERATIONS OF WOMEN BOTANICAL ARTISTS AT THE NATIONAL MUSEUM OF WALES

This paper examines the artistic contribution to the botany collections made by three artists-in-residence employed by the National Museums & Galleries of Wales. Their contribution ranges from the early days of the Museum to the present day. These three talented women, Eveline Jenkins, Dale Evans and Annette Townsend, have all produced both fine botanical illustrations and realistic wax models of plants. This collection of wax models is unique – it is especially useful for exhibitions since fresh flowers would rapidly wilt. Furthermore, all three women have been involved with education in some form – thus passing their skills on to others.

EVELINE JENKINS (1893 – 1976)

Eveline Jenkins was born in Monmouthshire and studied art at Aberystwyth. She trained as a teacher and taught for 6 years in Cornwall and Glamorgan. However, she suffered problems with her hearing and, following an unsuccessful operation, she was unable to teach large classes any longer and had to resign. In 1927 she successfully applied for a post at the National Museum of Wales as a botanical artist. This was a new post, created because the Keeper of Botany realised that fresh plant material was unsuitable for permanent displays. He recognised that there was a need for an artist capable of producing botanical illustrations and wax models that were scientifically correct.

Jenkins worked at the National Museum of Wales until 1959. Encouraged by the Keeper of Botany, she taught herself to make realistic, delicate wax models of plants for exhibition. The Museum still prizes this unique collection. She produced many watercolours and sketchbooks of plants, mainly collected locally. She also collected plants for the herbarium collection, even during her holidays.

Fungi seem to have been one of her main enthusiasms. She kept detailed notes of where and when her specimens were collected and she made delightful sketches and wax models of them. Often Jenkins would add an insect or a few leaves around the base to make the model look more realistic. She also wrote articles explaining the best methods for collecting and modelling fungi. In one she notes that “no one can intelligently set up a fungus model without understanding that correlation between structure and function which all fungi so clearly reveal.” She also mentions that some difficult models took up to three weeks to construct.

The Museum holds 60 watercolours by Eveline Jenkins. They all measure 38 cm by 26.5 cm and several are mounted on stiff card. The illustrations generally have a strong outline but often the fine details are not discernible. Frequently features are included in the illustration to suggest the habitat of the plant, for example, a little of the surrounding leaf litter might be included on fungi illustrations. Only one illustration from this collection has been published (Lazarus and Pardoe 2003). During her time at the Museum, Jenkins also illustrated Departmental publications such as the book *Welsh Timber Trees* by Hyde, and *Welsh Ferns* by Hyde and Wade. The Museum holds several of her sketchbooks and diaries in its archives.

DALE EVANS (1956 -)

Dale Evans, a contemporary artist, worked at the National Museum of Wales for more than nine years. Her background in both botany and art enabled her to produce exquisite and sensitive illustrations. Their botanical accuracy was essential to emphasise contrasts between superficially similar species. The Museum holds a total of 150 illustrations by Evans. The high quality of her work was recognised when she received the Jill Smythies Award for published botanical illustration from the Linnean Society of London in 1991.

Evans produced fine illustrations of ferns, mountain plants, fungi, mosses, wild flowers and exotic fruit that were used in diverse publications. She also produced four reconstructions of Snowdon during the Quaternary for a publication and exhibition, both entitled "Snowdon's Plants since the glaciers" (Pardoe and Thomas 1992). During her time at the Museum much of her work was directed at Botany Departmental publications. For example, her illustrations of ferns and mountain plants were made into posters, some of her fungus drawings were used to illustrate notelets and several of her other works were included in books and exhibitions. She also worked on the wax models. Since leaving the Museum Evans has developed her talents by becoming involved in computer graphics, animation and design.

ANNETTE TOWNSEND (1973 -)

Annette Townsend studied at the Cardiff Institute for Higher Education and the Somerset College of Arts and Technology. She made high quality replicas of Museum objects during her training.

Her work with the Department of Botany at the National Museum of Wales began in 1996, when she was asked to produce a series of watercolour drawings for a departmental publication. This involved creating realistic images of the early land plants. From this point, her illustrative work gradually progressed to three dimensions and she undertook a project of reconstructing extinct plants through the medium of wax. She picked up the basic techniques from the botanical conservator who was caring for the wax model collection and by reading notes and papers written by previous model makers at the Museum. She has been successful in producing accurate models of fossilised plants previously never visualised in three dimensions before. The models are constructed from a range of materials including beeswax, paraffin wax, cardboard, paper, wire, glass and fabric. Her models are made with their long-term care in mind. The materials and techniques used are carefully documented at every stage to aid conservation in later years.

Her models are exquisite, life-like and botanically accurate providing excellent replicas of rare, extinct or out of season specimens for display and exhibitions. She has been commissioned to make models by the BBC for the Walking with Dinosaurs programme, the Snowdon Tourist Information Centre at Beddgelert and by The National Botanic Garden of Wales, Middleton where an exhibition of her giant fungi can be seen on permanent display. Her models are also regularly used for 'in house' exhibitions. She has published many papers and has taught practical model making courses for staff at the National Museums & Galleries of Wales, and conservation students at West Dean Conservation College.

Townsend has also produced exceptional pen and ink drawings, watercolours and diagrammatic work for departmental and external publications. She is currently involved in the conservation and re-housing of the entire wax model collection which consists of 1,500 models. The majority of the collection is now accessible and in good condition and many can be seen on display in the Museum galleries.

Interest in these collections has been revived recently due to the preparation of an exhibition of botanical illustration by women. A comprehensive list of the collections of prints and drawings can be found in a new catalogue of botanical illustrations held by the National Museums & Galleries of Wales (Lazarus and Pardoe 2003).

The work of these three dedicated and talented women has contributed to a unique collection of wax models and botanical illustrations that is still giving people great pleasure.

Acknowledgements: We are grateful to Dr Chris Cleal and also the Photography Unit at NMG for technical assistance with the images.

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