

BOTANICAL SOCIETY OF THE BRITISH ISLES

WELSH BULLETIN

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'Snowdon Lily', *Lloydia serotina* del. H. M. Reynolds 1981

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PLANTS

Plant notes and records are compiled by R.G. Ellis, Department of Botany, National Museum of Wales, Cardiff, from reports of B.S.B.I. County Recorders to whom records should preferably be sent. Any received by G.E. will be passed to the Recorder concerned. Plants are listed for each county in the order of Dandy. List of British Vascular Plants (1958), the number in that list preceding the name, so that names recently changed can be used without giving the former name. English names are those in English Names of Wild Flowers (1974) by J.G. Dony et al. All records for 1980 unless otherwise stated.

The County Recorders are:

T.G. Evans, La Cuesta, Moun-ton Road, Chepstow, Gwent, v.c. 35
MONMOUTH

R.G. Ellis, Dept. of Botany, National Museum of Wales, Cardiff, CF1 3NP.
v.c. 41 GLAMORGAN

M. Porter, Ynys Villa, Llangynidr, Crickhowell, Powys, v.c. 42 BRECON
Miss A.C. Powell, Corner Cottage, Great Oak, Eardisley, Hereford,
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R.D. Pryce, Gilfach Farm, Llanddarog, Carmar, Dyfed, v.c. 44 CARMARTHEN

S.B. Evans, Glan-y-Mor, Dinas Cross, Newport, Dyfed, v.c. 45 PEMBROKE

A.O. Chater, Dept. of Botany, British Museum (Natural History),
Cromwell Road, London, SW7 5BD, v.c. 46 CARDIGAN

Miss D. Pugh, Homestead, Pant, Oswestry, Salop., v.c. 47 MONTGOMERY

P.M. Benoit, Pencarreg, Barmouth, Gwynedd, v.c. 48 MERIONETH

M. Morris, Plas Derwen, Penmachno, Gwynedd, v.c. 49 CAERNARVON

J.M. Brummitt, 69 Cambrian Drive, Colwyn Bay, Clwyd, v.c. 50 DENBIGH

G. Wynne, Gwyifa, Lixwm, Holywell, Clwyd, v.c. 51 FLINT

R.H. Roberts, Quinton, Belmont Road, Bangor, Gwynedd, v.c. 52 ANGLESEY

All Taraxacum records will be given in the January issue of the Bulletin.

MONMOUTH (Comm. T.G. Evans)

98/3. Barbarea intermedia Bor. (Medium-flowered Winter-cress). One plant, roadside, Bishton, ST38, uncommon in vc 35, T.G.E.

181/1. Vitis vinifera L. (Grape-vine). Newport Rubbish Tip, several plants, ST38, T.G.E., 1970/80.

286/2. Petroselinum segetum (L.) Koch (Corn Parsley). c.12 plants, reebank, Noah's Ark, Undy, ST48, T.G.E. An uncommon county plant since 1900 due to drainage and grazing.

319/8. Euphorbia serrulata Thuill. (Upright Spurge). Banks of Trothy, Mitchel Troy, new site, Dr. S. Tyler.

403/1. Echium vulgare L. (Viper's-bugloss). 20+ plants above River Monnow, Llancillo, SO32, S.T., uncommon in Gwent.

416/9. Verbascum blattaria L. (Moth Mullein). Several plants on built up bank of Afon Llywd, Croesyceiliog/Pentnewydd, ST29, T. & J. Pollard.

417/1. Misopates orontium (L.) Raf. (Lesser Snapdragon). Few plants on new bank of newly cut-road, Penpergwm, SO31, C. Titcombe. A plant unknown in S. Gwent over recent years.

422/1. Kickxia spuria (L.) Dumort. (Round-leaved Fluellen). In oatfield, Kilpale, ST49, C.T., rare in Gwent.

459/3. Stachys arvensis (L.) L. (Field Woundwort). One plant, Newport Rubbish Tip, ST38, T.G.E. and roadside, in small numbers, Penpergwm, SO31, C.T.

468/1. Marrubium vulgare L. (White Horehound). 2 plants, trackside, Talywain, SO20, R. Hewitt. Rare in vc 35.

542/1. Onopordum acanthium L. (Cotton Thistle). 1 plant, Newport Rubbish Tip, ST38, T.G.E. Infrequent casual, usually roadsides or meadows.

557/3. Cicerbita macrophylla (Willd.) Wallr. (Blue Sow-thistle). Between Maesycwamer and Fleur de Lys, ST19, J.G. Markin, 8.9.1978 & Rhiwderin, ST28, E. Griffiths, 7.1978.

602/1. Colchicum autumnale L. (Meadow Saffron). Small number on road verge, Craig-y-dorth, SO40, S.T.

655/9. Scirpus lacustris ssp. tabernaemontani (C. Gmelin) Syme (Grey club-rush). Corner of field, nr. Maesycwamer, ST19, J.G.M., 1978

372/2. Anagallis arvensis ssp. arvensis forma azurea (blue flowered form of Scarlet Pimpernel). Several plants, Newport Rubbish Tip, ST38, T.G.E.

372/3. Anagallis foemina Mill. (Blue Pimpernel). Several plants, Newport Rubbish Tip, ST38, T.G.E.

GLAMORGAN (Comm. R.G. Ellis)

98/3. Barbarea intermedia Bor. (Medium-flowered Winter-cress). Roadside, Bute Town, SO10, Mrs. A.B. Pinkard & A.E. Wade, 1978.

- 131/ Cerastium biebersteinii DC. Roadside wall, Castellau, ST08, R.G.E., 1973
- 226/3. Prunus cerasifera Ehrh. (Cherry Plum). Hedge, Colwinston, SS97, A.B.P., 1978.
- 246/4. Ribes sanguineum Pursh (Flowering Currant). Abundantly naturalized, old cottage garden, Gilfach Goch, SS99, R.G.E., 1979.
- 254/9. Epilobium obscurum x palustre (a hybrid Willowherb). Ditch near Heol-y-Cyw, SS98, A.B.P. & A.E.W., 1978.
- 259/2. Myriophyllum spicatum L. (Spiked Water-milfoil). Deep ditch, Cosmeston Country Park, ST16, A.B.P., 1978.
- 262/4. Callitriche hamulata Kutz s.s. (Intermediate Water-starwort). Pond, Llysworney, SS97, R.G.E., 1979.
- 272/ Eryngium amethystinum L. Well established in overgrown garden, Penarth, ST17, L.E. Evans, 1979.
- 319/7. Euphorbia platyphyllos L. (Broad-leaved Spurge). Edge of cornfield, Lavernock, ST16, J.P. Curtis, 1978.
- 463/1. Leonurus cardiaca L. (Motherwort). Dunes, Kenfig, SS78, G.O. Rotheray, 1978.
- 663/57. Carex otrubae Podp. (False Fox-sedge). Wet roadside, nr. Bridgend, SS98, A.E.P. & A.E.W.
- 701/4. Agrostis gigantea Roth (Black Bent). Churchyard, Coity, SS98, A.B.P. & A.E.W.
- 706/1. Lagurus ovatus L. (Hare's-tail). Waste ground, Barry Docks, ST16, Dr M.E. Gillham.

The following plants are among the more interesting that were recorded on waste ground in or near Barry Docks during a field meeting of the Cardiff Naturalists Society held in September 1980 (Leaders R.G.E., J.P. Curtis).

- 56/6 Papaver somniferum L. (Opium Poppy); 79/6 Lepidium latifolium L. (Dittander); 112/3 Reseda alba L. (White mignonette); Alcaea rosea L. (Hollyhock); 197/1 Galega officinalis L. (Goat's-rue); 203/1 Coronilla varia L. (Crown vetch); 207/5 Lathyrus tuberosus L. (Tuberous Pea); 207/6 L. sylvestris L. (Narrow-leaved Everlasting-pea); 207/8 L. latifolius L. (Broad-leaved Everlasting-pea).

Lycopersicon ssp. esculentum Mill. (Tomato); 416/7 Verbascum virgatum
Stokes (Toadflax); 420/2 Linaria purpurea (L.) Mill. (Purple
Toadflax); 420/3x4 L. repens x vulgaris = L. x sepium Allman (a
hybrid Toadflax); 422/1 Kickxia spuria (L.) Dumort (Round-leaved
Fluellen); 503/3 Leucanthemum maximum (Ramond) DC. (Shasta Daisy);
554/1 Lactuca scariola L. (Prickly Lettuce); 679/2 Cynosurus
echinatus L. (Dog's Tail); 683/6 Bromus madritensis L.
(Compact Brome)

RADNOR (Compton, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961)

- 19/1 Asplenium adnigrum (L.) Bernh. (Brittle Bladder-fern).
Rocks on the banks of track, Cwm-y-bont SO15, A.C.P.
- 25/1. Polypodium australe Pde (Southern
Polypody). Basic rock on steep South facing wooded slope. Stanner
Rocks, SO25, P.M. Bennett.
- 97/4. Cardamine flexuosa With. (Wavy Bitter-cress). Damp hollow
beside woodland track, Presteigne, SO36, A.C.P.
- 107/1. Alliaria petiolata (Bieb.) Cavara & Grande. (Garlic Mustard).
Hedgerow, St. Harmons, SO07, Miss J. Blashill.
- 124/3. Lychnis flos-cuculi L. (Ragged Robin). Marshy ground nr.
pools, Hendregenny Farm, Pilleth, SO26, A.C.P.
- 149/1c. Mentha nastana ssp. amporitana Sennen. (Blinks). Wet
ground, Glasbury, SO25 and ditto Cwm-y-bont, SO15, A.C.P., det.
R.G.Ellis
- 149/1d. Mentha nastana ssp. varicabilis Walters. (Blinks). Wet
ground by stream, Dumble Hill, Harpton, SO25, A.C.P., det. R.G.E.
- 165/15. Geranium lucidum L. (Shining Crane's-bill). On steep
rock ledge, Cwm-y-bont, SO15, A.C.P.
- 187/2. Ulex europaeus L. (Western Gorse). Hillside, Colva,
SO15, A.C.P.
- 235/6. Securidaca bursera (L.) Link. (Stonecrop). Old wall, churchyard,
Bryngwyn, SO14, A.C.P.
- 236/1. Sempervivum tectorum L. (House-leek). Many plants on
old farmyard wall, Glasbury, SO25, also farmyard wall,
Llan Ewan, nr. Llansawney, SO16, A.C.P.
- 311/1. Heracleum sphondylium var. angustifolium Huds. (Hogweed).
Lane verges, Glasbury, SO25, A.C.P.

- 320/10. Polygonum lapathifolium L. (Pale Persicaria). Damp hollow by river Wye, Llanstephan SO14, A.C.P.
- 367/3. Primula veris L. (Cowslip). Damp low-lying ground, St. Harmons, SN97, J.B.
- 406/2. Calystegia pulchra Brummit & Heywood. (Hairy Bindweed). Roadside hedge, Gladestry, SO25, A.C.P.
- 420/3. Linaria repens (L.) Mill. (Pale Toadflax). Roadside rocks, Neuadd-ddu, nr. Rhayader, SN97, Miss A.P. Conolly.
- 433/2. Rhinanthus minor L. (Yellow Rattle). Damp ditch, track verge in wood, Presteigne, SO36, A.C.P.
- 439/1. Lathraea squamaria L. (Toothwort). On hazel in woodland, Glascwm, SO15, A.C.P.
- 475/6. Campanula glomerata L. (Clustered Bellflower). Under scrub, Dolyhir quarries, Old Radnor, SO25, A.C.P. Probably a garden escape.
- 513/1. Pulicaria dysenterica (L.) Bernh. (Common Fleabane). Prolific by roadside, Disserth, SO05, J.B.
- 558/2.6b. Pilosella aurantiaca ssp. carpathicola (Naegeli & Peter) Sojak (Fox-and-cubs). Churchyard and waste ground, Gladestry, SO25, A.C.P.
- 643/2b. Dactylorhiza maculata (L.) Soó. (Heath Spotted-orchid). Damp ground under gorse, Gladestry, SO25, A.C.P.
- 663/16. Carex rostrata Stokes. (Bottle Sedge). Sedge filled old pool, Gladestry, SO25, A.C.P.
- 669/3. Glyceria declinata Breb. (Small Sweet-grass). Verge of small pool, Newchurch, SO25, A.C.P., det. S. Thomson.
- 670/2. Festuca arundinacea Schreb. (Tall Fescue). Roadside, north of Cross Gates, SO17, R.G. Woods.
- 683/12. Bromus x pseudothominii P.M. Smith (Lesser Soft Brome). Turf below cliffs, Stanner Rocks, SO25, A.C.P. Det. R.G. Ellis.

CARMARTHEN (Comm. R.D. Pryce)

- 2/2. Selaginella kraussiana (Kunze) A. Braun. Nursery weed, Swiss Valley Garden Centre, Llanelli, SN54, I.K. Morgan.
- 50/1. Thalictrum flavum L. (Common Meadow-rue). Roadside bank

nr. Muddlescwm, Kidwelly, SN40, R.D.P., 1981. Presumed rediscovery of R.F. May's first v.c. record dated 1969, reported by Mrs. I.M. Vaughan in 1970 as destroyed by gate widening.

58/2. Papaver dubium L. (Long-headed Poppy). Railway side, Llwyndewi, Whitland, SN21, NCC Railway Site Survey, 1978.

58/6. Papaver somniferum L. (Opium Poppy). Near beach, Ferryside, SN31, I.K.M., 1979.

79/3. Lepidium heterophyllum Benth. (Smith's Pepperwort). Railwayside, Llwyndewi, Whitland, SN21, NCC Railway Site Survey, 1978.

100/4. Arabis hirsuta (L.) Scop. (Hairy Rock-cress). Old Railway, Login, SN12, I.M.V, R.D.P, S.N. & G.H. Tallowin, 1976 and Rhandirmwyn SN74, I.M.V., 1950+

104/1. Hesperis matronalis L. (Dame's-violet). Roadside verge, White Mill, SN42, R.D.P.

109/1. Arabidopsis thaliana (L.) Heynh. (Thale Cress). Old colliery tip, Great Mountain, Tumble, SN51, I.M.V. & R.D.P., 1974. Destroyed by Opencasting, 1975.

129/1. Saponaria officinalis L. (Soapwort). Roadside verge nr. old houses, nr. Cynwyl Elfed, SN32, R.D.P.

141/1. Arenaria serpyllifolia L. agg. (Thyme-leaved Sandwort). Cynghordy, SN84, I.M.V., 1965 and disturbed dunes, North Dock, Llanelli, SS49, R.D.P.

168/10. Geranium columbinum L. (Long-stalked Crane's-bill). Railway side, nr. Llwyndewi, Whitland, SN21, NCC Railway Site Survey, 1978.

193/1. Anthyllis vulneraria L. (Kidney Vetch). Disturbed dunes, N. Dock, Llanelli, SS49, R.D.P.

206/2. Vicia tetrasperma (L.) Schreb. (Smooth Tare). Railway side, nr. Llwyndewi, Whitland, SN21, NCC Railway Site Survey, 1978.

211/11/59. Rubus lindleyanus Lees (a Bramble). Old railway track between Llanybydder and Pencarreg, SN54, BSBI field meeting, 1978, det. A. Newton. 2nd record.

211/11/356. Rubus dasycarpus (Rogers) Rogers (a Bramble). Old railway track between Llanybydder and Pencarreg, SN54, BSBI field meeting, 1978, det. A. Newton. 2nd record.

- 235/11. Sedum reflexum L. (Reflexed Stonecrop). Railway line behind Diplomat Hotel, Llanelli, SN51, I.K.M., 1979.
- 273/1. Chaerophyllum temulentum L. (Rough Chervil). Stradey, Llanelli, SN50, I.K.M., 1979.
- 294/1. Pimpinella saxifraga L. (Burnet-saxifrage). Railway side, Llwyndewi, Whitland, SN21, NCC Railway Site Survey, 1978.
- 320/18. Fallopia aubertii (Louis Henry) J. Holub (Russian-vine). Waste ground, Carmarthen, SN42, R.D.P.
- 326/1. Parietaria judaica L. (Pellitory-of-the-wall). One plant on coal measures rock face, Twrch valley, nr. Cwm Clyd, SN71, R.D.P., 1981.
- 367/3. Primula veris L. (Cowslip). Few strongly growing plants. roadside verge, north of Alltwalis, SN43, R.D.P., 1981.
- 367/3x5. Primula veris x vulgaris (False Oxslip). Roadside verge, nr. Login, SN12, G.H. Forster et al 1981.
- 385/5. Gentianella uliginosa (Willd.) Borner (Dune Gentian). Fixed dunes, Towyn Burrows, SN30, R.D.P., slight extension in range.
- 393/1. Borago officinalis L. (Borage). One plant on roadside bank opposite entrance to Kidwelly Rubbish Tip, SN30, R.D.P., 1981.
- 474/1. Wahlenbergia hederacea (L.) Reichb. (Ivy-leaved Bellflower). Abundant in wet flushes on north bank of Afon Twrch below Cyllie Farm, SN71, R.D.P. & Dr E. Rhodes, 1981.
- 484/1. Cruciata laevipes Opiz. (Crosswort). Roadside bank, nr. Pantydwr, Llanedi, SN50, R.D.P.
- 485/1. Galium odoratum (L.) Scop. (Woodruff). Stradey Woods, Llanelli, SN40, I.K.M., 1979.
- 485/3. Galium mollugo L. (Hedge Bedstraw). Railwaysides nr. Llwyndewi, Whitland, SN21, NCC Railway Site Survey, 1978 and Swiss Valley, Llanelli, SN50, Mrs M. Williams, 1976.
- 485/4. Galium verum L. (Lady's Bedstraw). Limestone pavement, Carreg-yr-ogof, Black Mountain, SN72, S.B. Evans, 1976.
- 506/7. Senecio viscosus L. (Sticky Groundsel). Almost pure sand, imported from nearby dunes, recently disturbed, nr. Warden's House, Pembrey Country Park, SN40, S.N. & G.H.T.

- 525/1. Eupatorium cannabinum L. (Hemp-agrimony). River banks, River Twrch, between Pumpsaint & Ffarmers, SN64, S.B.E. & J. Humphrey, 1977.
- 526/3. Anthemis arvensis L. (Corn Chamomile). Farmyard, Pilgrim's Rest, Llanybri, I.M.V., 1976.
- 535/1. Artemisia vulgaris L. (Mugwort). Farmyard, Garreg Lefain, Porthyrhyd, Llanwrda, SN73, I.M.V., 1979.
- 535/6. Artemisia absinthium L. (Wormwood). Sea wall, Machynys, SS59, R.D.P., 1977.
- 544/2. Centaurea montana L. (Perennial Cornflower). Well established in roadside lay-by, nr. Llanddarog, SN41, R.D.P.
- 558/163. Hieracium strumosum (W.R. Linton) A.Ley (a Hawkweed). Railway cinders, Ty Mawr Level Crossing, Pinged, SN40, H.J. Killick & J.O. Mountford, 1978. 2nd v.c record.
- 567/1. Hydrocharis morsus-ranae L. (Frogbit). Very abundant after ditch clearance. Ffrwd Fen Nature Reserve, Pembrey, SN40, S.N.T. & R.D.P.
- 620/1. Tritonia x crocosmiflora (Lemoine) Nicholson (Montbretia). Roadside verge near old ruin, nr. Parc y Mynydd, Kidwelly, SN40, R.D.P.
- 628/1. Listera ovata (L.) R. Br. (Common Twayblade). Railwayside, Talhardd, Ffairfach, SN62, NCC Railway Site Survey, 1978.
- 643/3. Dactylorhiza incarnata (L.) Soo'. (Early Marsh-orchid). Fixed dunes, Pendine, SN20, B.D. Harding, 1978
- 643/4. Dactylorhiza praetermissa (Druce) Soo' (Southern Marsh-orchid). Fixed dunes, Pendine, SN20, B.D.H., 1978
- 643/3x4. Dactylorhiza incarnata x praetermissa. (a hybrid Marsh-orchid) Fixed dunes, Pendine, SN20, B.D.H., 1978
- 672/2. Vulpia bromoides (L.) Gray (Squirreltail Fescue). Railway, Ffairfach Cutting, SN62, NCC Railway Site Survey, 1978 with V. myuros (L.) C. Gmelin. (Rat's-tail Fescue).
- 683/5. Bromus sterilis L. (Barren Brome). Laneside bank, Llandebie Roadside Nature Reserve, SN61, I.M.V., 1976.
- PEMBROKE (Comm. S.B. Evans)
- 7/1. Hymenophyllum tunbrigense (L.) Sm. (Tunbridge Filmy-fern). Rock outcrops in wooded gorge, Gwaun Valley, SM93, S.B.

- 21/8. Dryopteris aemula (Ait.) Kunze (Hay-scented Buckler-fern). Shady waterfall in woodland, Gwaun Valley, SN03, S.B.E.
- 24/2. Thelypteris palustris Schott (Marsh Fern). Fen, Penally, SS19, S.B.E.
- 192/1. Trifolium ornithopodioides L. (Fenugreek). Old limestone quarry, Stackpole Quay, SR99, R.G.Woods.
- 274/1. Anthriscus caucalis Bieb. (Bur Chervil). Sandy roadside, Whitesands, St. David's, SM72, Mrs G.C. Lambourne.
- 343/1. Salix pentandra L. (Bay Willow). Streamside, Sutton Mountain, SM81, J. Comont.
- 577/6. Potamogeton gramineus L. (Various-leaved Pondweed). Western Cleddau river, Treffgarne & Cuttybridge, SM92 & SM91, Dr N.T.H. Holmes & S.B.E.
- 646/1. Acorus calamus L. (Sweet-flag). Bosherton Pool, SR99, Dr J. Baker.
- 659/1. Schoenus nigricans L. (Black Bog-rush). Wet heath, Goodwick, SM93, J.C.
- 600/1. Rhynchospora alba (L.) Vahl (White Beak-sedge). Valley mire, Hayscattle, SM92, Miss M. Patterson & S.B.E.
- 663/81. Carex dioica L. (Dioecious Sedge). Sedge rich flushes. Mynachlogddu, SN13, S.B.E.
- 714/1. Parapholis strigosa (Dumort.) C.E. Hubbard (Hard-grass). Saltmarsh shingle, Pwllcrochan, SM90, R.G.W.

CARDIGAN (Comm. A.O. Chater)

- 5/1. Osmunda regalis L. (Royal Fern). One large clump in gully on sea cliffs S of Aber-porth, SN25, A.O.C. This is the only coastal site in Cards.
- 21/6. Dryopteris carthusiana (Vill.) H.P. Fuchs (Narrow Buckler-fern). Dry scree in oakwood nr. Pontrhyd-y-groes, SN77, A.O.C. In Cards. usually a plant of bogs.
- 28/1. Botrychium lunaria (L.) Sw. (Moonwort). Unimproved pasture nr. Elerch, SN68, D. Glyn Jones & C. Fuller. This is the first time it has been seen in Cards. since 1956.

- 37/1. Trollius europaeus L. (Globe-flower). Wet gulley by R. Ystwyth, Cwystwyth, SN87, A.O.C. The only recent record from the Ystwyth catchment area; it has not been seen at Llanilar, Salter's locality, in recent decades.
- 45/1. Clematis vitalba L. (Traveller's-joy). Scrub between road and R. Teifi, Trebedw, SN34, A.O.C. Perhaps an escape.
- 53/1. Berberis vulgaris L. (Barberry). Dominant along c.30 m. of hedge by road nr. Nancwille Church, SN55, M. Chater and A.O.C. Said by Salter to be 'not infrequent', but not seen anywhere else in recent decades.
- 115/2. Hypericum x inodorum Mill. (Tall Tutsan). Scrub by stream below Aber-arth village, SN46, A.O.C. Det. N.K.B. Robson.
- 216/3. Geum rivale L. (Water Avens). Streamside in mixed deciduous woodland, Gwenffrwd, Llangeitho, SN55, A.O.C. & D.G.J. This and the corresponding Nant y March dingle opposite are the only lowland sites for this species in Cards.
- 239/15. Saxifraga hypnoides L. (Mossy saxifrage). Cliffs above Llyn Llygad Rheidol, Pumlumon, SN78, A.O.C. Only one patch, c.150 x 60 cm., could be found in this locality where Salter recorded it 1903-1934; it seems to have gone from its only other Cards. site, Lluest Graig.
- 320/21. Polygonum polystachyum Wall. ex Meisn. (Himalayan knotweed). Waste ground, spread from garden of Brynonnen, Llanarth, SN45, A.O.C.
var. pubescens DC. Roadside bank 100 m. N. of Pen-lon, between New Quay and Synod Inn, SN35, A.O.C.
- 343/6. Salix purpurea L. (Purple Willow). Several bushes, up to 4m. high, in Alder carr by Afon Grannell nr. Beillicadarn, SN54, A.O.C. & D.G.J. One of the only sites where it appears to be native in Cards.
- 343/16. Salix repens L. (Creeping Willow). Heathy Pasture becoming overgrown by secondary woodland, Tyddyn-du, Cenarth, SN24, A.O.C.
- 634/4. Dactylorhiza praetermissa (Druce) Soó (Southern Marsh-orchid). One spike only, rough pasture on coast, Mwnt-fawr, Felin-wynt, SN25, A.O.C.

643/5. D. purpurella (T. & T.A. Steph.) Soó (Northern Marsh-orchid). Marshy pasture near Ystrad Meurig, SN76, D.G.J. Marshy pasture near Talgarreg, SN45, A.O.C. & D.G.J.

655/4. Scirpus sylvaticus L. (Wood Club-rush). Teifi E. of Cil-y-blaid, SN54, Llanfihangel-ar-arth, SN44, Pont Tywell, SN44, Henllan Bridge, SN34, above Stradmore, SN24, N.T.H. Holmes, 1978. Teifi at Llanwnen, SN54, Grannell at Llanwnen, SN54, A.O.C. & D.G.J. Not noticed in Cards. until 1978, but apparently widespread along the Teifi.

693/2. Helictotrichon pubescens (Huds.) Pilger (Downy Oat-grass). Abundant at NE corner of The Patch and in extensive Gorse scrub N of road nearby, Gwbert, SN14, A.O.C., C.F. & D.G.J. In Penbryn churchyard, SN25, A.O.C.

-/- . Arundinaria japonica Sieb. & Zucc. ex Steud. (a Bamboo). Well established and spreading along boundary of deserted garden by Henllan Bridge, SN34, A.O.C. Well-established in wooded dingle below Bronpadarn, Llanbadarn Fawr, SN68, A.O.C.

-/- . Sasa palmata (Burbidge) E.G. Camus (a Bamboo). Well established in several colonies in wooded dingle below Bronpadarn, Llanbadarn Fawr, SN68, A.O.C. Det. D. McClintock. 1st record.

MONTGOMERY (Comm. Miss E.D. Pugh)

15/5bxa Asplenium trichomanes subsp. quadrivalens D.E. Meyer emend Lovis x subsp. trichomanes (Maidenhair Spleenwort). Overgrown drystone wall, Gelli-goch, nr. Machynlleth, SN79, P.M. Benoit, 1974. 1st record.

46/22(b). Ranunculus peltatus Schrank. (Pond water-crowfoot). R.Vyrnwy, Meifod, SJ11, F.H. Perring, 1979.

58/6. Papaver somniferum L. (Opium Poppy). Disturbed ground, Meifod, SJ11, E.D.P.

65/4. Corydalis lutea (L.) DC. (Yellow Corydalis). Bridge over river, Carno. SN99, C.A. Small.

80/2. Coronopus didymus (L.) Sm. (Lesser Swine-cress). Cow track, Gwern Beilliad, Four Crosses, SJ21, C.A.S.

- 84/1. Thlaspi arvense L. (Field Penny-cress). Roadside verge, Penyfoel, SJ22, E.D.P.
- 100/4. Arabis hirsuta (L.) Scop. (Hairy Rock-cress). Rocky outcrop in field S. of A458 road, Trewern, SJ21, E.D.P.
- 143/1. Spergularia rubra (L.) J. & C. Presl (Sandy Spurrey). Rocky outcrop in field S. of A458 road, Trewern, SJ21, E.D.P.
- 162/1. Tilia platyphyllos Scop. (Large-leaved Lime). Below Middleton Hill, SJ31, S. Stafford.
- 168/2. Geranium sylvaticum L. (Wood Crane's-bill). Near Llanwddyn, SJ01, Ivan Proctor, 1979.
- 179/1. Rhamnus catharticus L. (Buckthorn). Field hedge nr. Cae Mwgall drive, Stalloe, SO29, E.D.P.
- 207/11. Lathyrus montanus var. tenuifolius (Bitter Vetch). Above N.E. end of Lake Vyrnwy, SJ02, I.P., 1979.
- 211/11/2. Rubus scissus W.C.R. Wats. (a Bramble). Boggy area nr. road, Garthbeibio, SH91, E.D.P. Det. A. Newton.
- 239/2. Saxifraga stellaris L. (Starry Saxifrage). One plant on rock in R. Wye near its source, SN88, W. Condry, 1981. Nr. Craig-y-Gribin, SH92 and Afon Eiddew, Lake Vyrnwy, SH92, I.P., 1979.
- 239/9. Saxifraga granulata L. (Meadow Saxifrage). Damp rocky woodland with stream, nr. Cletterwood, SJ20, D. Daniels.
- 259/2. Myriophyllum spicatum L. (Spiked Water-milfoil). Nr. Rhydwyman, SO29, I.C. Trueman.
- 311/2. Heracleum mantegazzianum Somm. & Levier (Giant Hogweed). By river Carno, SM39, C.A.S.
- 343/1. Salix pentandra L. (Bay Willow). Wet ground below Corndon Hill, SO39, J. Roper. 2nd v.c. record.
- 343/13x12. Salix aurita L. x S. cinerea L. = S. x multinervis Doell (a hybrid Willow). Wood, N. of Ceuffordd, SJ21, C.A. Sinker, 1978. 2nd record.
- 358/1. Vaccinium vitis-idaea L. (Cowberry). In three areas to N.W. of Lake Vyrnwy, SH92, I.P., 1979.

- 367/3x5. Primula veris x vulgaris (False Oxslip). Grassland nr. City, S028, R.G. Ellis.
- 392/1. Symphytum officinale L. (Common Comfrey). Nr. dam, Lake Vyrnwy, SJ01, I.P., 1979.
- 509/4. Petasites fragrans (Vill.) C. Presl (Winter Heliotrope). Llansantffraid, near church, SJ22, E.D.P.
- 551/1. Picris echioides L. (Bristly Oxtongue). Garden weed, Pentre Llifior, Berriew, S019, H. Burke. 1st localized record.
- 606/9. Luzula multiflora (Retz.) Lejeune (Heath Wood-rush). Marshy ground below Corndon Hill, S039, J.R.
- 655/10. Scirpus setaceus L. (Bristle Club-rush). Marshy ground E. of Corndon Hill, S039, J.R.
- 663/36. Carex caryophyllea Latourr. (Spring-sedge). Llanymynech Hill, SJ22, E.D.P.

MERIONETH (Comm. P.M. Benoit)

- 21/1x3. Dryopteris filix-mas (L.) Schott x D. oreades Fomin = D. x mantoniae Fraser-Jenkins & Corley (a hybrid Male-fern). Bank of ravine, Dolgoch, SH60, Mrs K.M. Stevens, 1979. Det. C. Fraser-Jenkins. 1st record.
- 183/2. Lupinus arboreus Sims (Tree Lupin). Pine plantation on old duneland, Morfa Harlech, SH53, P.M.B.
- 226/3. Prunus cerasifera Ehrh. (Cherry Plum). Roadside hedge, between Cynwyd & Corwen, SJ04, E.D. Pugh, 1981.
- 274/1. Anthriscus caucalis Bieb. (Bur Chervil). Rubbish Tip, Morfa Dyffryn, SH52, D.H. Black & H. Handley.
- 327/1. Soleirolia soleirolii (Req.) Dandy (Mind-your-own-business). Crevices between stones in steps, Penygraig, Barmouth, SH61, P.M.B., 1981.
- 362/1. Monotropa hypopitys L. (Yellow Bird's-nest). Pine plantation in duneland, Morfa Harlech, SH53, Elizabeth Watson.
- 399/2. Pulmonaria officinalis L. (Lungwort). Woodland along stream, Hengwrt Estate, SH71, U.C.W. Aberystwyth Environment Group, 1977.

CAERNARVON (Comm. M. Morris)

15/5b x a. Asplenium trichomanes subsp. quadrivalens D.E. Meyer emend Lovis x subsp. trichomanes (Maidenhair Spleenwort). Mortared wall, nr. Pont y Pant, Lledr Valley, SH75, P.M. Benoit, 1974. 1st record.

400/4 x 1. Myosotis caespitosa K.F. Schultz x M. scorpioides L. = M. x suzae Domin. (a hybrid Forget-me-not). Marshy ground by Afan Erch, Pwllheli, SH33, P.M.B., 1979. 2nd record.

420/3 x 4. Linaria repens x vulgaris = L. x sepium Allman (a hybrid Toadflax). Railway ballast, W of Porthmadog railway station, SH53, P.M.B.

631/1. Hammarbya paludosa (L.) Kuntze. (Bog Orchid). In hummock/pool community, Gors Gyfelog SSSI, SH44, J. Ratcliffe & T.H. Blackstock.

676/9. Poa compressa L. (Flattened Meadow-grass). Top of limestone wall, Church Walks, Llandudno, SH78, P.M.B.

683/13. Bromus lepidus Holmberg (Slender Soft-brone). Lawn, I.T.E. Penrhos Road, Bangor, SH57, P.M.B.

DENBIGH (Comm. J.M. Brummitt)

57/2. Ceratophyllum submersum L. (Soft Hornwort). Old marlpit at side of B5102, Plas Devon, Holt, SJ35, Paul Day, 1979.

85/1. Teesdalia nudicaulis (L.) R. Br. (Shepherd's Cress). Thin soil over shale outcrop, Mynydd y Gaer, Llanefydd, SH97, J.M.B.

135/1. Moenchia erecta (L.) Gaertn., Meyer & Scherb. (Upright-Chickweed). Thin soil over shale outcrop, Moel y Gaer, Llanefydd SH97, J.M.B.

136/9. Sagina subulata (Sw.) C. Presl (Heath Pearlwort). Shale outcrop, Mynydd y Gaer, Llanefydd, SH97, J.M.B.

143/5. Spergularia marina (L.) Griseb. (Lesser Sea-spurrey). Nr. roadside salt tip, A495 nr. Conery Lane, Bronington, Whitchurch, SJ43, P.D., 1979.

148/1. Scleranthus annuus L. (Annual Knawel). Thin soil on shale outcrop, Mynydd y Gaer, Llanefydd, SH97, J.M.B.

185/2. Genista anglica L. (Petty Whin). In rough pasture along the Afon Gwrysgog, Rhydianfair, Pentrefoclas, SH85, P.D., 1979.

- 343/16. Salix repens L. (Creeping Willow). On rough pasture, W of Moel yr Iwrch, nr. Pentrefoelas, SH85, P.D., 1979.
- 392/7. Symphytum grandiflorum DC. (Creeping Comfrey). Roadside verge, by the E. side of A496 between Betws-y-Coed and Lanrwst, SH85, F. Edmonds, 1979.
- 416/7. Verbascum nigrum L. (Dark Mullein). Around farm buildings, Middle Sontley Farm, Erddig, Wrexham, SJ34, G. Spencer.
- 445/3x5. Mentha arvensis x M. spicata = M. x gentilis L. (Bushy Mint). Streamside, Henblas, Cerrigydrudion, SH94, J.M.B., 1979, det. R.M. Harley. 2nd record.
- 465/4. Galeopsis bifida Boenn. (Common Hemp-nettle). Cornfield, nr. Rhyd y creua, Betws-y-Coed, SH75, P.M. Benoit, 1978.
- 497/2. Dipsacus pilosus L. (Small Teasel). Clwyd bank of Shell Brook, Knotton Hall, Overton, SJ34, G.S.
- 506/2x1. Senecio aquaticus x Jacobaea = S. x ostenfeldii Druce (a hybrid Ragwort). River bank nr. Rhyd y creua, Betws-y-Coed, SH75, P.M.B., 1977. Numerous plants with both parent species. 1st record for v.c 50.
- 506/5. Senecio cambrensis Rosser (Welsh Groundsel). Laneside, Halten lane, off A5 Llangollen-Chirk road, SJ23, P.M.B.
- 514/5. Filago minima (Sm.) Pers. (Small Cudweed). Thin soil over shale outcrop, Mynydd y Gaer, Llanefydd, J.M.B.
- 577/7. Potamogeton alpinus Balb. (Red Pondweed). In old marl pit, N. of Bryn Mawr, Wrexham Industrial Estate, SJ35, P.D., 1979.
- 598/1. Ornithogalum umbellatum L. (Star-of-Bethlehem). Hedge bottom along c. 20 yds of lane, Erddig Estate, SJ34, G.S., 1981.
- 605/18x19. Juncus acutiflorus x articulatus = J. x surrejanus Druce (a hybrid Rush). Wet acid bogland on hill slope, 200m W. of Llechrydau. SJ23, P.M.B., 1979.
- 650/4. Lemna gibba L. (Fat Duckweed). Pond, Pant yr Ocham, Gresford, SJ35, B. Formstone, 1979. 2nd localized record since 1913.
- 655/3. Scirpus maritimus L. (Sea Club-rush). In pond, Hafod Wood Nature Reserve, Erddig, Wrexham, SJ34, G.S.
- 663/23. Carex strigosa Huds. (Thin-spiked Wood-sedge). Longwood, Park Eyton, Wynstay Estate, SJ34, G.S.

670/9. Festuca tenuifolia Sibth. (Fine-leaved Sheep's-fescue).
Dry hummocks in acid bog, Garthryn, Betws-y-Coed, SH85, P.M.B.

676/11. Poa angustifolia L. (Narrow-leaved Meadow-grass). Grassy
bank, lane to Halton off A5 Llangollen-Chirk road, SJ23, P.M.B.

ANGLESEY (Comm. R.H. Roberts)

133/6. Stellaria palustris Retz. (Marsh Stitchwort). Cors
Erddreinlog, SH43, T. Blackstock. Confirmation of J.E. Griffith's
record.

325/16. Rumex rupestris Le Gall (Shore Dock). Newborough Forest.
See p

605/7. Juncus foliosus Desf. (Toad Rush). Llandegfan Common,
growing with J. bufonius L. s.s., SH57, R.H.R.

640/1. Ophrys apifera Huds. (Bee Orchid). A few plants on
Penrhosfellw Common, SH28, Ian Bullock, 1979.

642/5. Orchis morio L. (Green-winged Orchid). In short turf
over limestone, Fedw Fawr Common, SH68, Dr L.J. Rees.

Rumex rupestris in Anglesey

R.H. Roberts

Rumex rupestris Le Gall (Shore Dock) occurs only on the shores of Western Europe and according to the late J.E. Lousley, is one of the world's rare docks. It was first recorded in Newborough Warren in 1951; there are two sheets of material in the Cambridge herbarium, both determined by J.E. Lousley (pers. comm. C.D. Preston, 1977). It is not clear who collected the material.

The plant was seen on the edge of a small dune-slack pool on the southern dunes in 1955 and with it some plants which appeared to be intermediates between it and R. crispus, the dominant dock of dune areas. A brief search in 1977 failed to re-locate R. rupestris in this locality; it was found, however, in small numbers at a second site in Newborough Forest, and, as far as can be ascertained, is now restricted to this single spot.

R. rupestris has decreased rapidly on the shores of south-west England, mainly because of increasing human pressure on the beaches. Its conservation in Newborough Warren is a matter of some importance as it is here at its most northerly station in western Europe.

Three flower books - a review

by Goronwy Wynne

I have been looking at three books which will interest the field botanist; one is written by a man, another by a woman, and the third by a husband and wife team. All three are similar in size and are lavishly illustrated in colour.

The first is *Wild Flowers, A Photographic Guide* by Desmond and Marjorie Parish. The Parishes are well known for their exhibitions of wild flower photographs, and this book is essentially a photographic record with accompanying botanical notes. Some 95 species are shown, ranging from the British Isles to the border of Asia, and from the Arctic to the Mediterranean. They are arranged by habitats, from coastal to high Alpine, and about 35 are not found in the British Isles.

Most of the plants have a full-page photograph. Some of these show something of the habitat, others are close-up portraits. Most of them are technically excellent. I was very impressed with the photograph of *Pulsatilla halleri* (Haller's Anemone), a plant of the south-west and central Alps, in which the reproduction of detail is first rate. Some people might find the use of flash rather unfortunate in one or two of the illustrations. Thus the photographs of the Foxglove and the Willow Gentian have an almost black background which gives a rather gloomy atmosphere.

Each photograph is accompanied by a page of script. After short accounts of habitat, distribution and flowering-time, there is an extended description and a short section entitled points of interest. This last item is very readable, dealing with such topics as unusual methods of pollination, derivation of the name and economic or medicinal uses of the plant.

The Parishes have travelled widely for many years, and this book reflects some of the pleasure which they have gained from their botanizing. With less than a hundred species described, it was not intended to be a reference book, but as an essay in the delights of field botany it is very successful. It is well produced by Blandford Press at £4.95.

The second book is *Orchids of Britain* by David Lang, published by Oxford University Press at £9.50. With their fifty or so species, the orchids are possibly the most unusual and popular group in the British flora, and David Lang has given us a well ordered account of the family. The first thirty eight pages are devoted to the botany of the orchids, beginning with the structure of the flower and moving on to germination and mycorrhiza, then growth and reproduction, variation, ecology, classification and finally hybridization. Some of the sections are illustrated by excellent line drawings.

The greater part of the volume is taken up with descriptions of the individual species, with some two pages devoted to each one. These are presented in a very readable form, supplying a wealth of information in clear, uncluttered prose.

The final quarter of the book is devoted to the distribution of the British orchids. Each species has a full page map of the British Isles giving its presence or absence on a vice-county basis, since 1950. Although not as detailed as the 10 Km system of the Atlas of the British Flora, these maps are easy to use, and I found it interesting to check which species were recorded for my own vice-county of Flintshire (vc 51). The only omission I noticed was *Spiranthes spiralis*, the Autumn Lady's Tresses, which is very scarce here, but has been recorded more than once in recent years.

At the end of the book there is a useful bibliography and a helpful glossary.

Finally, a word about the illustrations. There are 32 pages of colour photographs arranged together in the middle of the book. In my opinion, their quality varies from quite good to very good. In general, the shots of complete plants are more successful than the close-ups of individual flowers, which are of course more difficult to achieve. As aids to identification they are all helpful, as well as making the book unusually attractive. What a pity that the publishers have not printed the names of the species with each illustration; I found it most annoying to have to keep turning the pages to refer to code numbers.

This is an enjoyable book which stimulates one's interest in the orchids and at the same time stresses the need for their conservation. I have not met the author, who is a veterinary surgeon in Sussex, but his personality and enthusiasm come over in his book. In the preface he thanks his wife and children who have climbed more hills and plodded through more bogs than most people have ever dreamed of, and he dedicates the book to them "----and to all who have suffered with a botanical father". I know the feeling!

This is a good book, but rather expensive at £9.50.

My third offering is *The Guinness Book of Wild Flowers* by Mary Briggs. In this country there is no shortage of series of books dealing with various aspects of natural history. This volume is in such a series, called *Britain's Natural Heritage*, published by Guinness Superlatives Limited. It costs £3.95.

This is a delightful little book, and like the first of the three, by the Parishes, it consists mainly of descriptions and colour photographs of individual species. This time there are just 50, all of which grow in Britain. Each plant has a full photograph, a line drawing, brief notes on size, flower, fruit, leaves, growth and flowering time, a paragraph on its distribution and ecology, and a map showing its distribution in 1900 and at the present day. This last point is a key to

the general tenor of the book. Mary Briggs is the secretary of the B.S.B.I., and is acutely aware of the dangers to our wild plants, and in a section devoted to conservation she outlines some of the work done by the County Naturalists' Trusts, the Nature Conservancy Council and the B.S.B.I.

The other introductory sections deal with identification, keeping records, the history of our plants, and a useful list of societies and nature reserves. In this context it seems odd that the map of nature reserves should be located at the end of the book.

The design and production of this volume are absolutely first class, with an exceptionally high standard of printing. The colour photographs are a delight. Most of them are by Heather Angel and a few by the author and by other photographers. As in the other two books, they are a mixture of habitat shots and close-ups. The mood in the woodland scene of Bluebell and the seascape of Thrift are magnificent, while in the Grass of Parnassus and Wood Anemone photographs, the illustrations really look like the plants they portray. The line drawings of Pamela Dowson are also clear and helpful.

The choice of species in this type of book has to be a subjective one, and Mary Briggs has (like the Parishes) adopted the habitat approach. So we have flowers of the wayside and hedgerow, meadow, woodland, wetland, downland and limestone, moorland and mountain, and coastal. As a book to develop the interest of a beginner, young or old, or to encourage the more experienced botanist on his way, this is a first class production, and by today's prices it is very good value for money.

HERBARIUM TOTALS ?

S.G. Harrison

Museums and Herbaria usually keep records of their accessions of specimens and publish either regular or occasional reports on their total holdings, either simply as sets of figures or in more detail. Very few if any institutions could honestly state that their records are completely accurate although they would at least aim to achieve a standard which would be adequate for most purposes. Old established collections may pose particularly difficult problems. For example, the Herbarium at the Royal Botanic Gardens, Kew, was established more than a century ago (incidentally the first official Curator, appointed in 1853, was paid 16 shillings per week). For many years it was assumed that the Kew Herbarium contained 6 to 7 million specimens, but the present Director (and former Keeper of the Herbarium) has stated that : "The basis on which these estimates had been made is hard to ascertain and seems to have been little more than guesswork, hopefully backed by inspiration". A systematic sampling, carried out by the Statistics Division of the Ministry of Agriculture, Fisheries and Food, and completed in 1971, indicated that the true total was between 3,905,000 and 4,471,000. Even without having complete faith in statistics one must agree that the difference between the old and the new estimates is remarkable.

The Welsh National Herbarium, being a relatively youthful institution with much smaller collections, should be able to assess its Herbarium Total more accurately. Thankfully, it has accession cards and registers dating back to the National Museum's first botanical acquisition in 1910, before the present Museum was built. Yet oddly enough they do not include the 3,500+ herbarium specimens of the "Cardiff Collections" which were transferred from the Cardiff Municipal Museum in 1912 (with some ceremony, according to the account published in the National Museum's own Annual Report). Former Assistant Keeper Mr. Arthur E. Wade recollects that soon after he was appointed in 1929 these specimens were included in the Herbarium Totals, but no printed record of this has been found. In the Departmental files there is a copy of a memorandum dated 16th September, 1937, in which the estimate of the Herbarium Total had been revised from 57,904 down to 55,747. It seems rather odd that in the face of a correction of this magnitude it was still thought necessary to give such a precise figure, rather than round it up or down to the nearest ten or hundred.

This does not imply that the present position is necessarily any more accurate. On the contrary, a check through the collections for the purpose of compiling an Index of Collections in the Welsh National Herbarium revealed a substantial number of unrecorded specimens. Many were rather small or in other ways inadequate and had probably been kept as a temporary measure until better material became available - a 'stop-gap measure' which in some cases had extended over several decades. Perhaps it would be advisable at this stage to state that the present Herbarium Total is greater than and about fifty thousand !

There is another factor which when statistics about the contents of herbaria can be obtained is by duplication, in two ways, both familiar to herbarium botanists but perhaps less so to most visitors to the department. If particularly fine plants are found, there is a temptation to collect enough material for two or more herbarium sheets instead of the single one which is

normally adequate. This is generally unwarranted, unless exchange or experimental material is needed. There are exceptions; for instance, adequate representation of a palm frond usually requires several sheets. Whatever the reason, the gathering usually receives a single accession number, with the result that the collection contains more sheets than its records indicate. This is academic as long as it is realized that the accession number refers to a collection, not to a single sheet.

The collection of specimens for exchange has already been mentioned. It is perfectly justifiable if done for scientific or educational purposes, if rare plants are left alone and moderation is practised. Before conservation became fashionable, some botanists collected specimens in large quantities for distribution to colleagues and associates, with the result that there is frequently duplication both between and within the major herbaria. Specimens collected in sets by members of Botanical exchange clubs were distributed to other members who often eventually donated or bequeathed or sold their collections to local or national museums or herbaria. For instance, in the Welsh National Herbarium there are (amongst others) six sheets of the hybrid Equisetum x litorale Kuhlew ex Rupr. collected from the same locality - "Near Dulverton, v.c. 5, S. Somerset", by the same collector, the Rev. Edward Shearburn Marshall, four of them on the same date, 3 June, 1916. Five were in the Herbaria of A.E. Wade, A.R. Horwood, H.J. Wheldon and J.E. Griffith, all purchased in the 1920's, and the sixth was in the Herbarium of Dr. W.A. Shoolbred, bequeathed in 1928. All were distributed in the first place by the Watson Botanical Exchange Club, or the Botanical Exchange Club of the British Isles. The latter was, of course, the 'ancestor' of the Botanical Society of the British Isles, which continued its exchange activities until 1955. The Botany Department at the British Museum (Natural History) has twelve gatherings of E. x litorale from the same locality. It would almost seem that the Reverend Marshall was doing his level best to eradicate the hybrid! For good measure, Kew also has one of his sheets. Another example in NMW is the nine sheets of Thymus drucei Ronn. collected at Harlech Golf Links by W.C. Barton on 11 Aug. 1915, again in the Wade, Horwood and Wheldon Herbaria and again distributed by the two exchange clubs.

Most museum curators would agree that although such gatherings were duplicates when first collected, they are no longer duplicates when they have been accessed as components of separate collections. One American curator has gone so far as to state that she doesn't believe there are such things as "duplicates". No conscientious curator can lightly dispose of such specimens but as museums are usually short of space the policy for future acquisitions has to be considered equally carefully. Collecting is a basic *raison d'être* for museums and herbaria, but it should be selective. In many cases donors of collections will agree to specimens which are surplus to requirements being handed over to other institutions. It should also be stipulated that fragmentary, damaged or otherwise inadequate material need not be retained. The need for careful screening of such specimens will be self-evident to anyone with experience of herbarium work. The possibility of a type specimen or an important voucher specimen being thrown away because of its seeming inadequacy is too hideous to contemplate. Even an herbarium 'population explosion' would be better than this.

From these few examples it can be seen that Herbarium Totals can be slightly or greatly misleading.