THE
BOTANICAL EXCHANGE CLUB
AND SOCIETY OF THE BRITISH ISLES.

BALANCE SHEET; SECRETARY'S REPORT FOR 1912.

REPORT FOR 1912
BY THE
SECRETARY.

VOL. III. PART. III.

PUBLISHED BY R. BLACKWELL,
BROAD STREET, OXFORD.
June 1913.

PRICE 3s 6d.
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All such information to be treated as strictly confidential.

II. To prepare a scheme showing which areas should be secured.

III. To obtain these areas and hand them over to the National Trust under such conditions as may be necessary.

IV. To preserve for posterity as a national possession some part at least of our native land, its fauna, flora, and geological features.

V. To encourage the love of Nature and to educate public opinion to a better knowledge of the value of Nature Study.

These objects are to be attained by means of the Press, by personal efforts, and by correspondence with local Societies and individuals.

The Society exacts no subscription from its members, who are elected by invitation of the Executive Committee. All interested in the objects here outlined are invited to communicate with the Secretaries at the above address, and those who are anxious to forward the aims of the Society can do so, not only by supplying the Executive Committee with information, but also, if asked to do so, by offering financial assistance, however slight, towards the purchase of any desired area, and by inducing their friends to do likewise. It may be pointed out that in the past the National Trust has been greatly assisted by such voluntary contributions.
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THE BOTANICAL EXCHANGE CLUB AND
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THE REPORT OF THE TREASURER & SECRETARY,
G. CLARIDGE DRUCE, YARDLEY LODGE, OXFORD,
FOR 1912.

**BALANCE SHEET FOR 1911.**

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PLANT NOTES FOR 1912, ETC.

19. Ranunculus repens, L., var. prostratus, Gaudin, Fl. Helv., iii., p. 547. See Fl. Berks., 1897, p. 20, and Report, 1911, p. 66. This is treated as the type in my List; if distinguished as a separate variety it may be put as var. a. The plant distributed last year (see p. 66) with a query as reptabundus, Jord., does not agree with the figure of that plant in Jordan & Fourreau’s Icones.


Mr. Pugsley’s monograph of the genus Fumaria in Britain (London—West, Newman, 54 Hatton Garden; price 3s), 1912, p. 76, contains the following newly-described plants:—

104. Fumaria [capreolata], L.

Var. Babingtonii, Pugsl.; l.c., p. 9. This is the common British form, the type not being given for Britain.

Var. c. devoniensis, Pugsl. North Devon; l.c., p. 10.

106. F. purpurea, Pugsl., var. brevisepala, Pugsl.; l.c., p. 13.

107. F. Boraei, Jord., as a sub-species, Pugsl.; l.c., p. 25.

Var. gracilis, Pugsl., var. muraliformis, Pugsl., not of Clavaud; l.c., p. 26.

Var. britannica, Pugsl., var. serotina, Pugsl., not of Clavaud; l.c., p. 27.

Var. verna, Clavaud, is now = forma rubens, Pugsl.

F. officinalis × Boraei = F. Painteri, Pugsl.; l.c., p. 30.

108. F. muralis, Sond., var. decipiens, Pugsl. Hants, Kent, Salop; l.c., p. 23.


111. F. officinalis, L.
Var. b. elegans, Pugsl. Chiefly in S. England; l.c., p. 52.
Var. c. minor, Hausskn., in Flora, 1873, p. 409. S. England; l.c., p. 52.


114. F. parviflora, Lam.
Var. b. Acuminata, Clavaud, in Fl. Gironde, 1882, p. 53. Sussex, Kent, Surrey, Berks, Bucks, &c.; l.c., p. 64.
Var. c. Symei, Pugsl. Cambridge; l.c., p. 65.

Several new forms are also described.

It was described as a species by Koch, Syn. Fl. Germ., 1837, p. 38.

191 (3). Sisymbrium pinnatum, Greene. Alien, Chili. Par Dockyards, Cornwall, in some quantity, July 1911, G. C. Druce.


Dr Thellung kindly named these specimens of *Lepidium*.


Rami (tantum suppetentes) ca. 40 cm. longi. *Folia* 3-4 cm. : 3-7 mm. Sepala 3/4-8 mm. longa. *Silicula* 2 : 1 1/2 mm. *Semen* 1 : 1/2 mm.
Patria ignota; planta peregrina, verisimillime, ex Australia oriunda, in Angliam introducta.


295. Viola rupestris, Schmidt, the typical, more glabrous plant = V. rupestris. Teesdale, Herb. Druce and Herb. H. S. Thomson. The var. arenaria is the plant originally found by the Backhouses. It is interesting to have in Britain both forms. See Gregory, Brit. Violets, 1912, p. 73.

296. var. e. Viola canina, L., var. pusilla, Bab. Man., 1843, p. 34. Gullane, M'Taggart Cowan; Mildenhall, Miss Ida Hayward ex. Gregory, l.c., p. 78.

Var. g. Var. Lucorum, Reichb. Woodwalton, Hunts. Gregory, l.c., p. 86.

297. Viola lactea, Sm., var. fumiliformis, Rouy & Fouc. Chailey Common, Sussex; Great Yarmouth; sandhill, Norfolk. Gregory, l.c., p. 95.


In addition to these, Mrs Gregory has also described some new hybrids and numerous forms in her Monograph. At the same time, several plants hitherto called varieties have been reduced to forms.


This interesting Spergularia differs from type salina by the smaller flowers, which are condensed into dense, short cymes, the pedicels of which are shorter than the capsule. It occurred as a form with the upper part extremely glandular at Littlestone-on-Sea, Kent, where I gathered it in 1902. G. C. Druce.

452. Malva sylvestris, L., var. angustiloba, Celak., Prod. Fl. Boehm., 1867, p. 515. Stem and leaves of a palish green, pubescent or hairy, the pubescence appressed; leaves small, with narrow lobes and deep sinuses; carpels glabrous. Twyford, Berks., 1892; Par, Cornwall, 1910, G. C. Druce and C. C. Vigurs, 1912.


This Rose has been a thorny subject to the student of this variable and difficult genus, and I am very greatly indebted to our valued expert Major Wolley-Dod for the world of trouble he has taken in order to assist in elucidating the matter. I was very anxious that he should name and describe it, especially as I felt that it could not be kept under *Rosa caryophyllacea*, Christ (not of Besser), itself apparently an untenable name, still less could it be left under the other names, which continental botanists, who had not seen it growing, had given
it, while the more recent suggestion of Herr Dingler's is at present apparently unpublished, even if the specimens on which it is based are identical with the Ashton Rose. Major Wolley-Dod moreover kindly wished me to name and describe it, since it is spread over a considerable area of Northamptonshire and presents features sufficiently marked to make it worthy of distinction; although from the curious mingling of characters, which are typical of several groups, it may very well be found hereafter to have greater affinities with another than the one with which it has been provisionally associated. The history is briefly this. In the seventies I found a Rose on Hunsbury Hill—the Dane's Camp—near Northampton (See Journ. North. Nat. Hist. Soc., 1881, p. 273), which working with Mr. Baker's useful arrangement, I ran down to R. verticillacantha. More recently I again gathered it in the vicinity and referred it to R. latebrosa. However, in August 1910 when staying at Ashton, I saw a Rose in the very luxuriant hedgerows bordering the road leading to the Hon. N. Charles Rothschild's house, which at once reminded me of the Hunsbury Hill plant, and after comparison, on my return I sent specimens to Major Wolley-Dod (Ref. no. 4821). These although the leaves were densely covered with subfoliar glands had the odour of the Mollissimae group. He at once detected it as a new form, and gave reasons why it could not be a tomentosa form because of the small hooked prickles, nor coriifolia on account of the styles, while dumetorum forms rarely had biserrate leaflets nor, unless exceptionally, subfoliar glands, the latter character usually going with the Borreri section, of which he knew no form like this. Neither [at that time] did he think it could be a member of the Eglanteriae group, and the possibility of its being a hybrid of gallica was lessened by the size and shape of the leaflets. Although analogous to R. latebrosa in the nearly glabrous leaves, that species is without subfoliar glands. Specimens were sent to M. Sudre who, I think, misled by the copious glands and acicles, suggested that it was R. rubiginosa var. Montini vel. affinis, a suggestion which appears outside the range of possibility: it has no sweet-briar odour, and the fruit is devoid of prickles. Afterwards he referred it to R. permixta, from which it differs in fruit, and in smell, etc. In June 1911 I went to Ashton again in order to obtain flowering specimens when I found the Rose in several places in the vicinity. Fresh and dried specimens (the latter no. 2782) were sent to Major Wolley-Dod, and by him submitted to
Herr Dingler who named it *R. caryophyllacea*, Christ, forma, but he says he has given it the name *R. tomentella* var. *anonyma* ined. in his herbarium, and that he believes it to be an *Eglanteria × canina* hybrid, and he thinks it must go with Ley's Catworth, and the Geddington and Wadenhoe plants. One of the Hunts specimens, Major Wolley-Dod says, "seems to agree exactly with *R. Friedlanderiana*, Besser, and Dingler agreed to this, ‘though more glabrous.’" Major Wolley-Dod remarks, "It is a very interesting addition to our flora." I ventured to challenge the determination, and sent specimens to the Bot. Exch. Club (See Report, 1911, p. 87). On these Mr. Barclay said, ‘It has no connection with the true *caryophyllacea* which is a mountain form, closely allied to *R. glauca* and *corifolia* which is confined to the Lower Engadine and Western Tyrol.’ He says that ‘Dingler separates one variety of Christ’s species . . . and along with that a number of closely allied forms . . . which he provisionally calls *anonyma*. It was to this he joined the Catworth plant.’ I remarked I quite agreed with Mr. Barclay in refusing to accept the name *R. caryophyllacea* for this distinct rose which I believed to belong to the *Borreri* group. Later on Major Wolley-Dod wrote me that he found a difficulty in associating it with Christ’s plant or indeed a form of it, and “as it occurs over a considerable tract of country you may as well give it a name and a description.”

As will be seen this rose offers points of exceptional interest, for, although a plant which superficially reminds one of the *dumetorum* series, it has, on closer examination, affinities with the *Borreri* group, from which it differs chiefly by its almost glabrous foliage. Then the leaf odour is that of the *Mollissima* while in the strongly glandular foliage, and in the presence of acicles on the branches the group *Eglanteriae* is recalled. One might theorise and suggest that it is a fixed hybrid (the fruit being fertile) of *sarmentacea (dumalis)* and *Eglanteria*: but the intermediates are not necessarily hybrids and the geographical range and fertility are adverse factors. The plant forms tall handsome bushes with conspicuous flowers of a brighter pink than normal *canina*, while the acicular branches, naked fruit, the very glandular, nearly glabrous leaves, and the acicular petioles and peduncles are distinguishing characters which separate it from its allies. I have associated the plant with the name of my friend on whose estate it grows: and who had done so much to forward the study of Natural Science. G. CLARIDGE DRUCE.
746. *Spiraea Ulmaria*, var. *denudata*, Boenn. In reporting on some experiments in a valuable paper on the Problem of Xeromorphy in Marsh Plants, *Ann. Bot.*, xxvi., n. ciii., pp. 815-870, Prof. Yapp says “*denudata* has never been induced to become really hairy, even when grown in dry, sunny, exposed situations.”


1000. *Parnassia palustris*, L., var. *condensata*, W. G. Travis and J. A. Wheldon in *Journ. Bot.*, 1912, p. 254. In *New Phyt.*, 1911, p. 312, I drew attention to the plant with very large flowers and fruit in the damp slacks of the sand dunes, and Dr Graebner and I independently came to the conclusion that it was a good variety. It is pleasing that our members who have known the plant for some years should have now described it. This year 1912 I gathered it on sea cliffs at White Park Bay, Antrim, and on the sands of Barry, at Carnoustie, and I have seen the same form at the Braunton Burrows, N. Devon, and in Holy Island, Cheshire. G. C. Druce.

PLANT NOTES FOR 1912, ETC.


This species beyond doubt is related to S. acre, but would seem to be different in all its parts. The lax habit of the plant often hanging down in long trails and the laxer and more flabby peduncles at once attract attention. The form of the leaves of S. Drucei resemble those of the montane S. repens (rubens). It is at once distinguished from S. acre by the loosely placed, narrow, divergent leaves, which call to mind S. boloniense.

Sedum Drucei belongs to quite a large number of forms endemic in Britain, which last year were observed on the International Phyto-geographical Excursion through the British Isles, and which took quite the foremost place of interest. This group proves beyond a doubt that the flora of the British Isles, in consequence of the early separation from the Continent, possesses a far larger geographical individuality, and has received a less disturbed development than is found in the floras of other parts of Europe. P. P. Graebner in lit.

One may add to the foregoing description which has been made by my distinguished friend Professor Graebner, the joint author with Prof. Ascherson, of the erudite Synopsis der Mittel-Europ. Flora, that so far as my observations go this form is the common native British species. Professor Graebner has cultivated it in the Berlin Botanical Garden side by side with the continental acre, and finds it keeps quite distinct, and that he cannot find a similar plant described before. Mr Ogilvy and Mr Wilmot also assure me that the ordinary German acre has quite a different facies. It inhabits in Britain a wide series of situations from the sand dunes by the coast, sandy banks, heaths, and chalk and limestone downs. It has yet to be demonstrated that the restricted acre occurs in Britain, but it has by no means been proved that this plant does not occur in France, &c. Hab., Torquay, Braunton, N. and S. Devon; Portland, Dorset; East Meon, S. Hants.; High Clere, N. Hants.; Hassocks, Arundel, Sussex, E. and W.; Pyrford, Surrey; Lydd, E. Kent; Uxbridge, Middlesex;
THE BOTANICAL EXCHANGE CLUB OF THE BRITISH ISLES.

Tubney, Berks.; Chinnor, Oxon.; Wendover, Bucks.; Dunstable, Beds.; Tring, Herts.; Lavenham, Aldborough, E. and W. Suffolk; Cromer, Brandon, Norfolk E. and W.; Oundle, Northants; Bartlow, Essex; Chippenham, Cambridge; Skegness, Lincoln, N.; Matlock, Derby; Malvern, Worcester; Stanner, Radnor; Fairford, Clifton, Gloster E. and W.; Uphill, Somerset; Stonehenge, Marlborough, Wilts. N. and S.; Porthcawl, Glamorgan; Ludlow, Hereford; Church Stretton, Salop; Craig Breidden, Montgomery; Harlech, Merioneth; Pentre, Denbigh; Llandudno, Carnarvon; Aberfraw, Anglesey; New Brighton, Chester; Southport, Isle of Walney, Grange, Lancashire; North Berwick, Haddington; Brodick, Arran; Barry, Forfar; Roundstone, Galway; White Park Bay, Antrim, Wicklow; Raven's Point, Wexford; Black Head, Co. Clare; Derrynane, Kerry.

1041 b. CALLITRICHE TRUNCATA, var. occidentalis (Rouy Fl. Fr., xii., p. 186), as a race. Differs from the type of Gussone by its more robust habit, and by the fruits being subsessile or only slightly stalked. L'Ancrese, Guernsey; Kent; Ireland; and to it doubtless belong all the recorded truncata from the British Isles.


1070 (3). OENOTHERA LONGIFLORA, Jacq. Alien, South America. Near Galashiels, Selkirk, 1912; Miss Ida M. Hayward.


1172 b. HEDERA HELIX, L., var. borealis, Druce. When in Skye in 1909 I was struck with the Ivy which I saw in the river gullies at Glen Brittle, Sligachan, etc., which attracted attention by
its small and narrow leaves and by its paler tint. In 1911 the same form was noticed in Silverdale, and I have seen it also in several places in Scotland. It may be worth distinguishing as var. borealis. Folia ramorum repentium sterillium valde angulata, haud transverse latiora. Rami floriferi breves. Folia ramorum fructiferorum 5.5—6 × 2.5—3—5 cm. late lanceolata sensim acuminata. Inflorescentia stellato-pillosa, pilis 5—7 radiatis. Habitat. Skye—Glen Brittle, Sligachan; Sutherland—Inchnadamph; Haddington—Yester; Lancashire—Silverdale.

1172 c. Hedera helix, L., var. sarniensis, Druce. The Ivy of Petit Bo, Guernsey which Mr Hunnybun kindly sent me last year is quite opposite to the northern plant in having very broad, scarcely angled leaves, even of the young plants, and in the deep green of the foliage. It may be distinguished as var. sarniensis. Folia ramorum scandentium sterilium late ovata transverse latiora, leviter angulata; caulina inferiora interdum transverse latiora, obtusa angulata vel subsimplicia, 10 × 8 cm., intermedia, 6—7 cm., subrhombea, superiora, 6.5 × 4 cm.; ramorum fructiferorum ovalia, breviter acuminata. Inflorescentia stellato-pilosa, pilis 5—7 radiatis. Habitat. Petit Bo, Guernsey. G. C. Druce.


1237 d. Scabiosa succisa, L., var hispidula, Peterm. Fl. Lips. Exc., 1838, p. 119. Under the name Succisa praemorsa, Gil., var. hispidula, Peterm., Dr Ostenfeld, New Phyt., 1912, p. 120, records the strongly hairy plant from Kynance, Cornwall. The var. glabrata, Schultes, I have from Loch Ness, 96 and Tar Wood, Oxon, etc. G. O. Druce.

1238. Scabiosa arvensis, L., var. pinnatisecta, Coss. & Germ. Druce, see Fl. Berks, 1897, p. 272.


When I first gathered this form on the Boar's Hill range, Berkshire, I thought it might be a hybrid of *F. minima* and *germanica*, and I submitted specimens to Dr Focke who considered the plant to be curious, and an anomalous form. (See *Fl. Berks.*, p. 277, and *Report*, 1894, p. 451). Further study has not supported the hybrid theory, and I have found it many years in the same place, and also on similar soil near Stow Wood, Oxford, where, as in Berks, it grows with typical plants; so that soil and habitat are not the factors which produce this form. Neither is it as I once thought due to accidental injury by sheep or rabbit nibbling. The plants appear quite healthy. Berks—Boar's Hill; Oxon—Stow Wood, Shotover. G. Claridge Druce.


1430. Cirsium anglicum, DC., vel C. Britannicum, Scop., var. polycephalum (Drucè), as sub-var. of Cnicus pratensis in Flora Berks, 1897, p. 301 (Pseudo-Forsteri H. C. Wats., as a var. of Carduus pratensis). Leaves more or less pinnatifid-lobed or incised, the lobes themselves sometimes two or three-cleft. It appears to me that the first year's plants of Cirsium anglicum have usually nearly entire leaves and single anthodes, while the perennial plants tend to have more deeply cut leaves and with two or more heads of flowers. But there may be differences between the two forms in all stages which comparative culture may reveal. This variety is more plentiful in Ireland, and in its extreme form looks a distinct species; it has often been recorded as heterophyllum, and also for the hybrid with palustris (C. Forsteri). But on the Continent also there is a great range in variation, for instance Brébisson (Fl. Normandie) says of C. anglicum 'quelquefois les feuilles sont pinnatifides.'

Polycephalum is represented in my Herbarium from Stoke Trester, Somerset, C. E. Palmer, 1884; Esher, Surrey, as C. pratensis var. Pseudo-Forsteri, H. C. Wats, 1866; New Forest, S. Hants, 1882; Hook Common, N. Hants, Miss C. E. Palmer, 1884; Wittering, Northants, 1884; Headington Wick, Oxon (as C. heterophyllus) F. T. Richards, ms.; Cothill, Berks; Feenagh, C. Clare a dwarf spinous form with very cottony under leaf-surface, 1909; and also as a coarse many headed form, cult. by S. H. Bickham (No. 322) (see Report, 1911, p. 99). For other references see Report, 1885, p. 131, and 1894, p. 452, The Lintons cultivated it from seed. G. O. Druce.


1642. Leontodon hispidus, L. var. glabratu, Gren. and Godr. Involucre and upper part of scape glabrous. Plentiful near Worcester,
37, and near Ledbury, Hereford, 36. It is the *L. hastilis* of the Rev. W. Moyle Rogers, but not Linn. R. F. Townend in *lit.* Grenier and Godron give *glabratus* as a var. of *proteiformis*, Vill., and quote as a synonym *L. hastilis*, *L.* Is the Malvern plant really distinct from *hispidus*? Dr Thellung names it var. *vulgaris*, Bisch.


Flora, 1901, p. 57). The corollas are really white, with a grey lilac stripe on the underside, but the pollen is orange-yellow, giving a pale yellow tint to the whole capitulum. Galway City. New Phyt., 1912, p. 120. C. H. Ostenfeld.

1694 Erica cinerea, L., var. schizopetala. Floribus majoribus; corollis profunde quadripartitis; sepalis lineari-acuminatis, atropurpureis, pellucide marginatis. Ringwood, in com., Hanton. D. Hazelby invenit. G. S. Bouger in Journ. Bot., 1912, p. 315. Mr Hazelby kindly sent me a specimen which I found was identical with a plant which had been sent me by Mr Francis Dickinson from the Common at Crockham Hill, near Edenbridge, Kent, in 1897, but as I thought it was a teratological modification rather than a true variety, when I recorded it in Journ. Bot. 1902, p. 352, I gave it no special name. G. C. Druce.

1696. Erica Mackayi × Tetralix = × E. Praegeri, Ostenf., New Phyt., 1912, p. 120. Craigga More, Galway, with both parents. Ovary glabrous with the exception of some hairs on the ridges; leaves broader than Tetralix, but much more revolute than in Mackayi, nearly glabrous above; the tomentum on the upper part of the stems and on the flower stalks is not dense as in Tetralix; the outer side of the sepals are only very faintly hairy. Plant presumably sterile. C. H. Ostenfeld l.c.


1792. Symphytum peregrinum, Ledeb. In the Journ. Bot., 1912, p. 332, Dr Cedric Bucknall has described three new hybrids of this species with S. officinale, i.e.

× S. discolor (S. officinale type × < peregrinum), Somerset and Gloster.

× S. lilacinum (S. offic. × var. purp. × < peregrinum), Land Yeo, Wraxhall.

× S. densiflorium (S. offic. var. purp. × < peregrinum), Somerset and Gloster. He also describes

× S. caeruleum Pettitm. (S. offic. type × peregrinum), Telford, Surrey, E. S. Marshall; Selkirk, G. C. Druce.


1864 (3). **V. sinuatum**, L. Alien, Eur. mer. See *Fl. Bristol*, l.c.


1877. **Linaria purpurea × repens** = × *L. Dominii*, mihi. Foliis anguste lanceolatis vel linearibus, inferioribus, verticillatis, superioribus sparsis, racemis densis, longis; Calycis laciniis linear-lanceolatis, acutis, 3—5 mm. longis; Capsula brevioribus; Corolla violaceo-lilacina, cum striis purpureis; Calcar obtuso, curvato, 5mm. longo.

These plants came up where *L. purpurea* and *repens* grew together and were distinctly intermediate in character. The evidence of *purpurea* is seen in the more upright and stronger growth, in the longer and denser raceme, in the darker colour of the flowers, in their shape, in having a less prominent orange spot on the palate, and in the size and shape of the spur, which is longer and thinner than in *repens*. The presence of *repens* is shown by the striations on the corolla, which is longer and more open, the lip slightly larger, and by the shorter and blunter spur, while the raceme is shorter and less crowded than in *purpurea*. The capsules had a certain number of infertile seeds,
Dr Domin and Dr Stapf saw the plants in my garden, and I believe were convinced they were hybrids. *Habitat*, Oxford, 1912. Ref. No. 4910. G. Claridge Druce.

1931. *Euphrasia suecica*, Murbeck and Wettstein in Wett's *Monog. der Gatt. Euphrasia*, 1896, p. 297. Sie ist eine frühblühende Parallelform zu *E. stricta* and "unterscheidet sich von dieser durch die unverzweigten oder, in oberen Teile, verzweigten Stengel, durch die verlängerten Internodien, die weniger spitzen Blattzähne und die frühere Blütezeit (Mai bis Juli). Sie sieht der *E. tenuis* Brenn. habituell ausserordentlich, ähnlich, unterscheidet sich aber von ihr durch den Mangel der Stieldrüsen." This interesting early-flowering Euphrasia I gathered in turfy places above Grass Wood, Grassington, Yorkshire, and Dr Lindman suggested to me that it might be this species, a name which Dr R. von Wettstein has confirmed. G. C. Druce.

1933 (2). *Euphrasia fennica*, Kihlman. This Euphrasia I gathered many years ago on Exmoor, Somerset, and more recently near Clifden, Connemara, Ireland. Dr Lindman first suggested the name, which has been corroborated by Dr R. von Wettstein. It is a small flowered form, with long glandular hairs. G. C. Druce.

1960. *Melampyrum pratense*, L. Under this comes *M. vulgatum*, Pers. var. *hians*, Druce, which is the plant with deep yellow-coloured flowers, and nearly simple bracts, which was thought by some of the members of the International Excursion of Phyto-Geographers to be the same as *M. paradoxum*, Roniger. But so far as the Scottish and North Country plants are concerned M. Beauverd agrees with me in keeping them distinct. Neither is *hians* identical with *M. vulgatum* var. *chrysanthum*, Beauv, which has a hairy style (it is glabrous in *hians*), and the interior of the corolla which is papillate in *chrysanthum* is scabrous in *hians*. I had already come to the conclusion that the plants from the South of Ireland and Devonshire must be separated from my *hians*, since the bracts are usually more or less cut, the calyx teeth are longer, and the habit of the plant is somewhat different. These Southern plants belong to an undescribed form near *M. paradoxum*, Roniger, which awaits further study. As I have elsewhere (*New Phyt.*, 1912, p. 360,) said that while the division
into two species of *M. pratense* may be justified, yet it appears untenable to use the name *M. vulgatum*, Pers., since Persoon, *Syn.* 1807, ii., p. 151, merely changed the name *pratense* to *vulgatum*, because as in the case of *sylvaticum*, the name was unsuitable. It is true he cites *Eng. Bot.* t. 113 for *vulgatum*, and as that plate represents a different plant from that of more Northern Europe, Continental botanists are using *vulgatum* to represent the split from restricted *M. pratense* L., of which as yet we have no certain British record, although it may be that some of our mountain plants from Scotland may be found to belong to the restricted species. The vars. *latifolium* and *ericetorum* certainly I think belong to *vulgatum*.


2091 (2). *Plantago Hudsoniana*, mihi. Hudson (*Fl. Ang.* 1762, p. 53) bases his *P. montana* on the plant described in Ray's *Synopsis*, 1690, p. 126, as “*Plantago an Alpina angustifolia* J. B. J.” Narrow-leaved Mountain Plantain. In rupibus Trigvylchau supra lacum Llyn Bochlyn . . D. Lloyd,” and it is represented in the Dillenian Herbarium by a specimen gathered by Samuel Brewer from that Carnarvonshire locality; which shows that it is a mountain Plantain allied to, and by recent authors merged into *P. maritima*. Hudson, however, in his description of *P. montana*, unfortunately confused it with a form of *P. lanceolata* as is seen by his words, “folis linearis-lanceolatis basi lanatis, spica subrotunda, scapo tereti” which evidently refer to the variety which
I identified with *P. lanceolata*, var. *sphaerostachya*, Rohl. (see *Journ. Bot.*, 1907, p. 21), but which does not apply to any form of the British *P. maritima*. This view is supported by Dr Richardson, who in a letter to Sherard, dated 1st April, 1726 (*Richardson Correspondence*, p. 239), says “At the top of the Glyder are Trigvulcaugh rocks; on the north side of which growing out of the cliffs of the steep rocks, you'll find the *Plantago minor angustifolia*, J.B.: this seems to me a distinct plant from the marine one; the leaves are shorter, narrower, and more rigid; the spikes are shorter. I have kept it in my garden ever since I was in Wales with Mr Lloyd, and it never varies: that from the bishoprick of Durham, and also from Northumberland is no other than the marine one. I have this also in my garden.” Moreover, in the third edition of Ray's *Synopsis*, p. 315, Dillenius adds to the original name “Plantam hanc erupibus Trigvylcaugh orientem spectantibus in hortum nostrum intuli, ubi jam viret; D. Richardson. *Plantaginis marinae* Ger. tam similis est ut distinguere nequeat. Spica saltem gracilior est, quod loci conditioni procul dubio debetur.” In a letter dated Oct. 25th, 1726, Richardson says he wishes Dillenius had been on the high rock Trigvylchy, which is at the very top of the Glydyr, “that you might have gathered an *Plantago alpina angustifolia*? J. B. of Mr Lhwyd then in flower”; he repeats the observations about it which he made to Sherard, and adds that it has remained constant to its characters in his garden. Therefore there is no doubt about the plant which Ray described and which Dillenius had in view, both from the description and from the herbarium specimen.

Buddle, (see *Herb. Sloane*, cxxiii, *Herb. Brit.*, x, fol. 33) has two specimens, one of which is the foregoing, but the other is a form of *lanceolata* which he wrongly says is the *Plantago vero*, D. Lhwyd, and this error is also made by Hudson in his description (not in the synonym) and by Sir Joseph Banks and other more recent authorities. Hudson, however, in 1778, in the second edition of the *Flora Anglica*, found that his description of *P. montana* was wrong, and puts the plant of Ray under *P. maritima*, as var. *γ* giving no Latin, but only the English name—the Mountain Plantain, uniting as a variety under the same species the erroneously named *P. Loeflingii* of the preceding edition. This arrangement is also adopted by Stokes in his edition of Withering of 1787, while Smith, in *Flora Britannica*, 1800, vol. i., p. 184, makes *P. montana* simply synonymous with *P. maritima*, as he does also in the *English Flora*, 1824, i., p. 216, adding a note that
Hudson mistook the slightly toothed specimens of *P. maritima* for *P. Loeblingii*, L., “owing to the figure of Petiver . . . . being erroneously cited by Linnaeus. On the other hand, Ray himself took mountain specimens of our *P. maritima* for an exotic species of Bauhin the *Plantain noirâtre* (*P. nigricans*) of Reynier’s herbarium, which Haller confounds with *lanceolata*, and which others have referred as inaccurately to *alpina*. Dillenius, between brackets, in the *Synopsis* corrects Ray’s mistake.” In 1856 Babington, *(Manual, p. 272)* says this “Mountain Plantain is apparently *P. serpentina*, Vill., . . . . It is probably a distinct species,” but in 1874 *(Manual, p. 289)* says it may be *P. serpentina*, Vill., or *P. alpina*, L., whereas Syme *(Eng. Bot., vii., p. 173)*, was unable to distinguish the mountain from the shore plant even as a variety.

Williams *(Prod., 1909, pars. 6, p. 361)* definitely identifies Durham and Carnarvon plants as *P. maritima* var. *alpina*, L., characterised as “*Rhizoma subterraneum rectum nec ramosum nec tortuoso-rugosum, pivotans, profunde prolongatum. Folia plana [?] nec coriacea, nec margine ciliata, integerrima vel 1—2 denticulis utrinque instructa trinervia, nervis haud equidistantibus, 2 lateralibus quidem fere juxta marginem currentibus. Scapi 4—15 cm., adpressae pilecentes vel hirsuti, rarius glabri. Bracteae minus obvie carinatae, plerumque paullo breviore. Corollae lobi lanceolatae acuti. Semina 1½ mm., magis oblonga nigricantia.*” I have also gathered plants answering to this description on Widdybank, Durham, on Sgurr Alaster, Skye, and on the Glydyr, Carnarvon, but I hesitate to identify them with *P. alpina*, L.—a plant of the Central and Eastern Alps—and consider them a distinct race for which I suggest the name *PLANTAGO HUDSONIANA*. On the standard of Bentham’s *Handbook* or Hayward’s *Pocket Book* it would stand as *P. maritima* var. *Hudsoniana*.

2098. (6) Plantago media, L., var. lanceolatiformis, mihi. Foliis erectis, pubescentibus, cum longis capillis articulatis, late lanceolatis (16 x 4 cm.), recurvis, 5—6 nervosis, apicem versus contractis, et paulatim contractis in longos petiilos canalicularios, qui paulum alati sunt ad basim: Scapo ad basim paulum curvato, dense piloso, non sulcato, foliis longiore, cum capillis adpressis articulatis: Spica terete, paulum fastigata, 4—5 cm. longâ Bracteae margines manifeste argenteos habent.

Syme (vide Engl. Bot.) no doubt knew this form, whose appearance is so intermediate between media and lanceolata as to suggest that the plant is a hybrid of these species, but since the inflorescence appears quite that of normal media, it seems wiser, with our present knowledge, to keep it as a variety of that species. Clevedon, Somerset, 1885; Kingsthorp, Northants, 1873. G. C. DRUCE.

Gen. 506. CHENOPODIUM, L.

My friend, Dr Murr, the well known expert on this genus, has been examining recently my set of the album group. The plants which he names include the following which have not previously been reported from Britain.


2124. C. album, L., var. d. serratifolium, Murr. Sewage Works, Northants, 1877; Arnley, Leeds, J. CRYER, 1905; Par, Corn-
wall; Bournemouth, S. Hants; Odiham, N. Hants, C. E. Palmer, 1894; Ham, Dorset, B. King, 1878; Hessle, York, C. Waterfall, 1899; Dorchester, Oxon, 1882.

2124. Var. e. paucidens, (Murr, as sub-species.) Near The Grange, North Hants, 1911; West Drayton, Middlesex; Port Meadow, Oxford, 1893; Odiham, N. Hants, C. E. Palmer, 1899; Chobham and Pyrford, Surrey (4920); Northampton, 1877; Symond’s Yat (Ref. No. 1620), Gloster W. A form closely allied to C. viride, L.

2124. Var. f. C. subficifolium, (Murr, as sub species.) Par, Cornwall, 1909; Botley, Oxon, 1890 “ad paucidens vergens”; Waste ground, Oxford, 1896; Par, Cornwall, 1900; Slough, Bucks; Ware, Herts, 1912; Galashieis, Miss I. M. Hayward, 1912.

2124 (2). C. pseudopulifolium, J. B. Scholz, Osney, Oxford, 1884. Dr Murr says “haec pl. foliis crassioribus minus argute dentatis obtusioribus inflor. ut typo pseudopulifolii rubiginosa.” This is, according to Dr Murr, a species quite distinct both morphologically and geographically. A plant probably belonging here was sent from Galashiels by Miss Hayward in 1912.


2124. (4). C. Bernburgense, Murr, as sub-species. High Wycombe, Bucks, July 1899, ref. no. 1007; not C. glomerulosum (glomeruli non evoluto), which Herr Freyn had named it.


2124 (6). Chenopodium borrasiforme, Murr, as a sub-species. Near Pyrford, Surrey, 1912, G. C. Druce.

2131 (2). C. striatum, Kras. (see Murr Deutsch Monats xiv., p. 32). Twerton, Somerset N., 1897, J. W. White, as C. glomerulosum Reichb, and so named by Prof. Sagorski (see Report 1897, p. 562, and Fl. Bristol, p. 506). The late Herr Freyn, however, disputed its identity with the plant of Reichenbach, and suggested it belonged to the group spicatum of Koch. Dr Domin thought it approached striatum, which it will be seen Dr Murr now names it. Alien of E. Indian origin which has spread into Hungary and many places in the South of Europe. It is probably derived from the Indian C. rubricaule Schrad., which, teste Murr, is probably the true C. serotinum, L.


2131 (5). C. Zscheckei, Murr, as sub. sp. Alien, America. Par, Cornwall, Aug. 1908.


Dr Murr remarks that the question of Chenopodium paganum Reichb. is still undecided. "According to the older authors it is identi-
cal with the plant I call *C. paucidens* (= *C. album* > *viride*), but considering all points, I prefer to assign it to *C. viridescens*, St. Aman., but these two varieties are sufficiently near and are united by a continuous series of forms. *C. glomerulosum* of many botanists, not of Reichb. = *C. microphyllum*, Coss. and Germ. = sub. sp. *C. striatifolium*, mihi; it is closely related to *C. striatum*, both in origin and characters, e.g., the small olive-coloured glomerules, and the leaves green above and glaucous below. According to authentic examples, *C. glomerulosum*, Reichb. is nothing more than an insignificant form of *C. album-viride* (C. paucidens, mihi) with smaller glomerules."

2166. **Dondia** [Suaeda] maritima, Druce var. macrocarpa, Moquin. See Report 1911, p 118. Isle of Wight; Havant, S. Hants; Crouch, Essex S.; Gravesend, Kent; Yarmouth, Norfolk E. G. C. Druce.


2179. **Polygonum minus**, Huds. var. dubium, Braun. See Report 1911, p. 119, Hurst, Berks; Amberley, Sussex, etc. M. Rouy Fl. Fr. xi., p. 100, refers dubium, Braun, to *P. mite*. G. C. Druce.

2184 (3). **Polygonum calcatum**, Lindman. On the road side Arthur’s Seat, Edinburgh. Closely allied to “*P. aviculare* L.,” but distinguished from all forms of that by its fruit which is subtrigonous to sub-bifacial not trigono~s and the sides of which are convex not concave. A small prostrate plant, growing amongst and almost hidden by grass. Professor Lindman agrees that the plant is his *P. calcatum*. C. E. Moss in lit.

I found a hybrid of this plant with *aequale* in Bucks last July which assumes the presence of *calcatum* in that county. G. C. Druce.

2184. **Polygonum aviculare** L. Dr Carl Lindman has in an erudite paper (*Svensk Botanisk Tidskrift* 1912 pp. 673-696 tt. 4.) dis-
cussed the forms of this polymorphic species, and names, describes, and figures two:

1. P. heterophyllum Lindm. n. sp.

*Caulis* erectus rigidus ramis ramalisque suberectis vel paulum divaricatis, rarius procumbens ramis humífis, long 2—6 dm; internodia infima c. 3—5 cm. longa. *Folia* polymópha, caulina majora late lanceolata v. obovato-lanceolata v. anguste lanceolata v. sublinearia, c. 2—4 cm. longa, ramorum dimidio breviora lanceolata v. oblonga, ramulorum minima et multo angustiora, lineari-oblonga v. linearí-lanceolata; omnia distincte acutiuscula, colore laeté viridía. *Cymulae aut flores* solitarii, secundum ramulos saepe productos racemosis vel subspicati, foliis minimis fulti. *Perigonium* e podio brevi patellíforme chorítepalm, lobíspodium longitudínem pluries superantibus, dorso laeté viridibus, marginibus albis roseis purpureisve perlatis, fructum saepissíme superantibus occultantibus. *Nux* trigóna, ovata vel subellíptica, 2—3 mm. longa, faciebus canaliculáts v. subplanís, minute longitudinalíter striáts, opaca v parum nitens, facie máxima late ovata vulgo symmetrica marginibus concinne arcuáts apice in apiculum excurrentíbus; colore hepática v. castanea rarius nigrescoens.


Var. *exímiun*, Lindm. vulgo-elatum, caule firmo, basi ad 3 mm. diam.; folíis infímis obovato-lanceolátis ad 4 cm.; modif. foliis angusté lanceolátis acutíssímis.


Var. BOREALE (Lange, Emend.) forma borealis, subsimplex, subhomophylla, foliis saepe obtusis carnosulis; praecox jam ab ipsa basi abunde florens, a var. littorali haud satis diversum. [Loch Leven, Fife, 1912, G. C. Druce.]

Sub. sp. EURIVAGUM, Boreau. [Henfield, Sussex, 1911, T. Hilton.]

Syn. P. microspermum (Jord.) Bor.

(2) P. AEOALE, Lindm. n sp.

Caulis vel erectus vel ascendens ramis saepe longis subsimplicibus divaricatis cum caule laxis, vel prostratus ramos terrae adpressos undique emittens, long 1—4 dm.; internodia basalia 1—3 cm. longa. Folia caulis ramorumque magnitudine aequalia vel diversa, omnia vulgo eadem forma, nunc late spathulata v. late elliptica, nunc obovato-oblonga v. lingulata rarius anguste oblonga v. sublinearia, obtusa, colore triste viridia v. glaucescentia v. canescentia. Flores vel cymulae axillares, nec distincte racemosi. Perigonium e podio turbinato chori­tepalam, lobis podium aequantibus vel duplo longioribus, dorso triste viridibus marginibus angustis albidis, fructum aequantibus v. paullo brevioribus. Nux trigona c. 2—3 mm. longa, e basi ovata lanceolatae nunc breviter pyramidalis, nunc rostrata, marginibus recta linea rostrum vel apicem pyramideam obtusum vel acutiusculum non apiculatum formantibus, colore rarius hepatica, vulgo nigra, faciebus subtiliter v. indistincte striatula v. punctulata subnitens.


Variae aliquando minus quam P. heterophyllum sed aequo modo formas diversas product.

Sub. sp. OEDOCARPUM, Lindm. distincte heterophyllum quoad magnitudinem foliorum, grande, robustum, fructu majore ad 3 mm. l., latiore incrassato; herba nunc erecta nunc ascendens. Forsan aequale x heterophyllum?

P. Aequale × Calcatum, Lindm. Lacey Green, Bucks., G. C. Druce. So named by Prof. Lindman.


2538. **Scirpus caespitosus**, L.

**Var. germanicus** (Palla) A. & G.
A rather slender plant.
Mouth of uppermost sheath rather deeply cut, mostly up to more than 3 mm., with rather broad mostly red-coloured and loosely appressed membranous margins.

Spikes rather large, many flowered.
Bristles of the perigonium papillose on the top.

**Var. austriacus** (Palla) A. & G.
A coarser plant.
Uppermost sheath with mouth not deeply cut mostly not more than 1 mm. with narrow whitish or pale brownish closely appressed membranous margins.

Spikes rather small, few flowered.
Bristles mostly not papillose at the top.

**Habitat.** New Forest, Hants; Hebrides, O. Paulsen; Craigga More Galway.

**Habitat.** Meachop Moss, N. Lancs; Ben Lawers, M. Perth.

See C. H. Ostenfeld in *New Phyt.*, 1912, p. 125. These varieties were originally described by Palla *Ber. Deutsch. Bot. Ges.* 1897, xv, pp. 467-471, as respectively *Trichophorum germanicum* and *T. austriacum*. The former is confined to the North German Plain, the German Mittelgebirge, the French Plain, Scotland, and the South Scandinavian Plain: the latter is a northern and alpine species found in Greenland, North America, the Himalaya, Northern Europe, and the Central European Mountains, and Ostenfeld, (*i.e.*) believes it is probably confined to the deep *Eriophorum* moors of North England and Scotland. Ascherson and Graebner, (*Syn. Fl. Mittel. Eur.*, 1903, ii, 2, p. 300), unite Palla’s species as varieties of *Scirpus caespitosus* a course which, notwithstanding the alleged extensive differences in anatomical structure, will doubtless commend itself to our readers. *Germanicus* is the common British plant. Omagh, Tyrone; Glenarm, Antrim; Clova, Forfar; Moor of Rannoch, Argyll, etc.


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2759 (2). POA IRRIGATA, Lindman in Botaniska Notiser, 1905, p. 87. Diagnos: Poa ex affinitate Poa pratensis, herba uliginosa, rarius sylvatica umbrosa, giabra, pallida vel glaucescens; Culmi 3(—2—4) dm. alti, rigidiusculi, erecti, stricti, solitarii, singuli e stolonibus laxis orti, innovationibus iisdem laxe dispositis, singulis vel paucis ex apice stolonis natis; Folia innovationis angusta rarius latiuscula, conduplicata vel planiuscula, vulga brevia, circa 1 dm. longa, saepius incurva, pagina superiore glaucescenti; folia culmi perbrevia, indole P. pratensis, summar longe a panicula distans; Ligula brevis truncata, 1—2 mm. longa; Panicula parva, laxa, ramos vulgo binis rarissime ternis, horizontaliter patentibus pyramidalis, nunc ovata, nunc oblonga, post anthesin non contracta vel ramos insigniter deflexis; Spiculae paucae vel perpaucæ, majusculæ, 5—6, 5 mm. longae, breviter pedunculatae, pedunculo saepius scaberrimo, forma angusta obovatae basi subcuneatae, 2—3 floræ; Glumæ longæ subaequales (gluma 1 long. 4—5 mm.) valvulæ aequantæ vel subaequantes, lanceolatæ cuspidae; saepe incurvæ, glaucescentes vel violascences vel intense purpureo-violaceæ, pruinose, dorso scaberrimo, lateribus planis laevibus, textura mox firma et colore albescente denuo eburneo; Valvula angusta ovata vel lanceolata, leviter tomentosa, long. 3, 5—4, 5 mm.; Antheræ flavidae vel subviolascentes, magnitudine Poa pratensis long. 1, 5 mm. Caryopsis brunnea vel subcastaneæ, major long. 2—2, 3 mm. diam. 0,5—0,6 mm.

Hab. in uliginosis, pratis et viarum marginibus irrigatis, fossis graminosis solo abiegnorum muscoso humido, haud raro in pratis litoralibus, hinc inde in pascuissolo duriore turfoso. In Oeland, Gotland, Ostrogothia, Sudermannia, Uplandia, Vestmannia, Dalecarlia, Lapponia. CARL LINDMAN, l.c.

The history of Poa irrigata as a British plant is not without interest, and offers many suggestive points. I first recorded it as Poa humilis in the Annals of Scottish Natural History for 1895, pp. 37 and 128, from the Cnochan Rocks, in West Ross, and W. Sutherland, where I gathered it in the preceding year. But subsequently, in July 1894 and 1896, I found a striking form in very small quantity (my ref. no. 2512) which grew in grassy places 2500-3500 feet on
Ben Lawers. One of these was sent to Professor Hackel, who, in a letter dated March 13, 1898, named it *Poa cenisia* var. *flexuosa*, Wahl., new to the British flora, and as such I briefly recorded it in the *Ann. Scot. Nat. Hist.*, 1898, p. 122. Prof. Hackel remarked that the specimen, which was a weak one, differed from the *cenisia* of the Alps, but he found no difference between it and some Norwegian specimens of *flexuosa* from the Dovrefeld. I may here add that the specimens, although evidently closely related, were not identical with those previously gathered at Cnochan (and which a good British botanist named *glauca*) and those from Ben Lawers of 1894. When I compared (2512) more closely with authentic specimens of *P. flexuosa* Wahl. I became convinced that they were distinct. Therefore in July 1898 I again visited Ben Lawers and brought back a considerable gathering, but only a plant or two identical with my No. 2512. I then submitted the whole gathering to Mr H. Fisher, who was then studying this genus, and he also (August 5, 1898) determined it to be a form of *Poa cenisia* nearest to *arctica*, R. Br. and considered it was worth a distinctive name, suggesting if I gave it a description it might be called *P. cenisia* All. var. *arctica*, R. Br., forma *scotica*, as he had found an interesting difference in the leaves. On November 16, 1898, he wrote me that *scotica* was a form peculiar to Scotland, the leaf being different from any other *Poa*, and adds “very likely you also would find a character which would enable you to refer your plant with more confidence to either *P. cenisia* or *pratensis*, or may be you could satisfy yourself that it ought to take much higher rank than a form of either.” Unfortunately the original gatherings 2512 which he retained, in order to prepare lantern slides, were lost or mislaid, and I have never had them back, so that it is now badly represented in my herbarium. But I may say that the suggested name of *arctica* seemed to me quite inapplicable, so I sent all my gatherings except those retained by Mr Fisher to Prof. Hackel, who, on March 22, 1899, reported that he thought all my specimens of 1898 must be referred to *P. pratensis* var. *humilis*, Ehrh., and the 2512 as a form which indeed comes close to *cenisia*, and remarked, “surely you are right in observing that what I called *P. cenisia* is not identical with the *flexuosa* of Norway or *P. arctica* . . . perhaps it would be better to say that it is a race of *pratensis*.” In the *Ann. Scot. Nat. Hist.*, 1900, p. 235, I definitely withdrew the name *P. cenisia* var. *flexuosa*, Wahl. In a letter from Mr Fisher dated 1901 he speaks of
the Lawers Poa 2512 as "one of the most interesting of the whole lot. I have examined plants from all parts of the North. I should say after three years to think about it that it is a very local species, subspecies or variety, whatever you choose to call it, just about half-way between cenisia and the montane form of pratensis, but the curious thing is the length of the hairs on the ribs of the leaf, 0.5 mm. long." But still earlier than my record of _P. humilis_ in 1895 I had noticed a narrow glumed form of _Poa pratensis_ and one with more glaucous foliage which I gathered near Padworth in 1889. I recorded it as forma _umbrosa_ in my _Flora of Berks_, 1897, p. 580. When travelling last year with Prof. Lindman he described to me his _Poa irrigata_, which we did not notice on our journey through the British Isles, the heat and drought of that year had been very inimical to grass vegetation. I then felt it might possibly be a key to a vexed question. On his recent visit to me he examined my collection, when he unhesitatingly identified my Lawers and Cnochans specimens as his _P. irrigata_, which itself has a considerable range of variation. In fact, he describes five forms—i.e.,

1 f. _EHRHARTI_, spiculis glaucis _P. humilis_, Ehrh. (nomen) secundum specimen mancum _Herb. Haun_. inscriptum "115 _Poa humilis_, Ehrh. Upsaliae."

2 f. _BREVIOR_, culmo _humili_ 10—15 cm. alto. foliis brevissimis rigidis . . . panicula minore, spiculis minoribus long. 5 mm. vel infra, etc. _Forma vulgata_, _Scania, Hallandia, Suecia _media_ Saltholmen, _Daniae_ = _P. humilis_ Fries, _Herb. Norm._ 9, 93 B, _ex max. parte._

3 f. _AUCTA_, major, culmo 50—60 cm. alto . . . panic. gauca majore, ramis saepius ternis vel quaternis. _Sueciae mediae_. Pad worth, _Berks._


As will be seen by Professor Lindman's description *P. irrigata* is closely allied to *P. pratensis*, the chief points of distinction being in the shape of the spike, etc., the length and shape of the glumes and in the size of the fruit. The glumes of *pratensis* are relatively shorter and broader, and narrow more abruptly than in *irrigata*, in which the glumes are as long or nearly as long as the lower flowers, and taper more gradually to the apex; so that the spikelets look longer and more graceful; in *pratensis* the spikelets are more ovate in outline, the spikelets are glaucous or pale-purple pruinose; the branches of the inflorescence 2 and 2 not 3—5; the basal shoots are very distant and spreading and not densely tufted. The fruit of *irrigata* as figured by Lindman is larger and considerably longer than in *pratensis*. In Britain it inhabits sea shores, wet and shady places, and grows mixed with *pratensis* on wet alpine slopes ascending to 3500 feet.

In my herbarium *Poa irrigata* is represented by specimens definitely determined by Dr Lindman from Hants N., Odiham, C. E. Palmer, 1880: Berks, Padworth, 1889, as *P. pratensis*, f. umbrosa; in *Fl. Berks*; Blackwater: Oxon, Bretch, T. Beesley, 1850, but the specimen is very dubious: Cheshire N., Shore of Dee, W. Kirby, 1876: York, N.E., Tees-side near Winch Bridge, 1909: Durham, Winch Bridge, 1909: Perth, Mid., 2500-3500 feet in Ben Lawers, 1896, 1898, ref. No. 2512, and forma 1908; Ben Laiogh 3500 feet, 1896; Ben Heasgarnich, forma 1890; Corrie Ardran 3300 feet, f. vraetexta: Argyll, Ben Laiogh, 1896: Aberdeen S., Corrie Ceanmor, 2800 feet, ref. No. 2514, 1899: Ross West, Cnochans rocks as *P. humilis*, 1894, See Ann. Scot. N. H., 1895, pp. 37 and 128: Sutherland W., Cnochans, l.c.: Caithness, by the river at Thurso, 1902: Shetland, Unst, W. H. Beeby as subcaerulea, 1886: George Don's *P. humilis* in Herb. Brit. Mus. is also I believe *irrigata* as is the plant collected at Tregyau and Tybry by the Rev. H. Davies in Anglesey, in 1799, which is the earliest specimen I have seen. It is labelled "*P. humilis*, Fl. Brit.; *P. glauca*, With.; *P. pratensis*, f. alpina, Huds. It is distinct from *P. alpina*, Fl. Brit. The 'flores' in my plant are 'villo complicato convexi' but not setose, in *alpina* they are 'libera.'" The glaucous colouring of *irrigata* evidently attracted his attention as it did mine when I first saw it on the Cnochans rocks, indeed it was so pronounced as to lead one of our best British botanists to think it was *P. glauca*, and as Prof. Lindman says, the plant has been much confounded with *P. humilis* and *P. subcaerulea*. G. C. Druce.


2876. b. Pteris aquilina, L., var. lanuginosa (Bory ex Willd. Sp. Pl. v. p. 403), Hook. Under side of pinnae lanuginose. Pointed out to me by Dr Domin in Oct. 1912. It is probably the common British form. Bodmin, The Lizard, Cornwall; Dartmoor, Devon; Poole, Dorset; Arundel, Crowborough, Sussex; New Forest, Silchester, Hants; Greenwich, Tunbridge, Kent; Exmoor, Somerset; Savernake, Wilts; Forest of Dean, Gloucester; Tilehurst, Berks; Stow Wood, Oxon.; Burnham Beeches, Bucks; near Hampstead, Middlesex; Pyrford, Surrey; Ashbridge, Herts; Woodham Ferris, Essex; Lowestoft, Lakenheath, Suffolk; Sandringham, Norfolk; Harleston, Northants; Woburn, Beds; Sherwood, Notts; Wytonbury, Cheshire; Ludlow, Salop; Malvern, Worcestershire; Teesdale, Durham; Keswick, Crossfell, Cumberland; Silverdale, Lancas.; Grasmere, Westmoreland; Peebles; Dryburgh; Roxburgh; Ettrick, Selkirk; Moffat, Dumfries; Glen
Luce, Wigton; St Mary's Isle, Kirkcudbright; Dunbar, Haddington; Duns, Berwick; Glenfarg, Lawers, Trossachs, Perth; Dalmally, Argyll; Glen Roy, Aviemore, Inverness; Callater, Aberdeen; Clova, Forfar; Kinlochewe, Strathpeffer, Ross; Bettyhill, Golspie, Sutherland.

2883. Asplenium lanceolatum, Huds. var. Sinelii. Differs from the type in the broadly ovate and serrate pinnae, by the rounded rachis, and the sori being in the centre of the pinnules. Old walls near Bagot, Jersey, found by Mr Sinel, J. F. ROBINSON in Science Gossip, 1880, p. 148. Through the kindness of Mr Marquand I have seen a letter from Mr Sinel, dated Jan. 1913, saying the article on the fern was written without his knowledge. He found a single plant near Boulay Bay, but although he searched repeatedly for many years he never saw another specimen. It was identified for him by Fraser and Moore. It was a pretty and remarkable little fern with fronds about four inches long, and grew more like an Aspidium than an Asplenium.

2923 (2). Azolla filiculoides, Lam. Woodbastwick, Norfolk E., detected by Dr Ostenfeld (see New Phyt., 1912, p. 127, and Report 1911, p. 56). In brackish water near Queenstown Junction, Co. Cork, having spread from the beautiful garden of Mr Beamish, who kindly sent me fresh specimens which Mr N. E. Brown has identified.

Appended are the distinguishing features of the two species, which have been abstracted from an interesting paper by M. C. Bernard in Recueil der Trans. Bot. Naeerland 1904, i., pp. 1-14.

A. filiculoides, Lam.

Plant growing in dense, vigorous tufts (2—1½ cm.)

The upper lobes of frond turned upwards (2½—2 mm.), and not closely appressed to the surface of the water, with a considerable margin, and having unicellular hairs.

The glochidia are without septa, or rarely (var. rubra) with one or two septa at the summit.

A. caroliniana, Willd.

Plant small, rarely more than 1½ cm.

The ramifications delicate and appressed to the surface of the water.

Upper lobes (½—1½ mm.) with no, or only slight, margin, and with bicellular hairs.

Glochidia septate throughout.
BOTANICAL PUBLICATIONS, 1912.

PRODROMUS FLORAE BRITANNICAE, by F. N. WILLIAMS. Part 9, March 1912. pp. 477-532. 2s 9d. Rhamnaceae—Euphorbia. Among the novelties included are Geranium sylvaticum, var. eglandulosum, Celak., Salop, Radnor: Callitriche platycarpa, vars. uliginosa and paludosa, Kütz: C. stagnalis, var. rivularis, Kütz: C. intermedia, var. lacustris, Will. Part 10. Sept. 1912. pp. 533-604, 3s 4d. Euphorbiaceae—Droseraceae. On page 551 it is stated that Tilia europaea cannot be raised from seed. Prof. Somerville, of Oxford, showed me some seedlings which had come up in his garden in 1910. Under Hypericum quadrangulum both H. dubium and H. undulatum are put down as varieties, the type being H. acutum—a Benthamian treatment. The Holyhead Rock-rose is described as Tuberaria Breweri, Willk., the Jersey plant being T. annua, Spach. Viola montana, L., is put as a variety (Kützingiana, R. & F.) of V. stagnina. V. lutea, var. sudetica, Koch, is given. The Viola banatica of Miss C. E. Palmer is described as a var. of “Grex V. arvensis,” under the name vectensis, Will.

THE TREES OF GREAT BRITAIN AND IRELAND, by H. J. ELWES, F.R.S., and A. HENRY, M.A. Vol. VI. Edinburgh, 1912. Privately printed. It includes 16 species of Picea, 20 of Junipers, 16 Magnolias, 2 Halesias, 3 species of Morus, and 12 of Eucalyptus. In this handsome volume a large number of exotic trees are described: there is also a description of Juniperus communis, under which J. sabrica, Burgsdorf, is reduced to the var. nana, Loudon, 2489, 1838. But the earlier combination according to the citation given is that of var. saxatilis, Pallas, Flor. Ross., of 1788. The authors state that seeds of nana sown at Berlin produced seedlings resembling the common Juniper in all respects. Similarly, plants of the common Juniper from Fontainebleau which were cultivated by Bonnier on Mont Blanc at an elevation of 6800 feet assumed the habit of nana in three years. Two teratological varieties are alluded to: one, thiocarpus, Asch. and Graeb., in which the three scales at the apex of the fruit do not close but gape, showing the seeds inside: the other, coronata, Sanio, in which the points of the scales unite together and form a projection at the summit of the fruit. The semi-naturalised Robinia and Laburnum are included. Of the genus Prunus our native species P. avium, P. Cerasus, and P. Padus are described, and also Pyrus communis, of
which *P. cordata* is made a variety. We also have descriptions of *P. Malus* and its var. *mitis*, Wallr. under a new name, *pumila*, Henry, and *P. aucuparia*, but we find no mention of the Irish yellow-berried plant, var. *flava*.

The Flora of Bristol, being an account of all the Flowering Plants, Ferns and their Allies, that have at any time been found in the district of the Bristol Coalfields: with introductory sketches of the Topography . . . and biographical notices of botanists connected with Bristol during the past 350 years. James Waller White, F.L.S., 3 plates, Map, pp. viii, 722. Price 12/6. Wright & Sons, Bristol. Our valued member is to be warmly congratulated upon producing so complete and useful a Flora. It contains a mass of information of great interest and value not only to the local botanist, but to the general worker and student of field botany. One point requires explanation. In my communication to Mr Linton I did not say that all *Epilobium* hybrids are fertile, but that some of them are. With regard to the status of *Spiraea Ulmaria* var. *denudata*, it would appear quite evident that some observers have not really mastered the distinction between the two plants, and that certain criticisms apply rather to forms of *S. Ulmaria* than to the variety.


The vars. *longibracteata* of *Carex disticha*, *chlorostachya* of *C. Goodenovii*, and *hirtiformis* of *C. hirta* are in Fryer’s Herbarium from Chatteris, as well as *Equisetum palustre* var. *polystachion*.

The Genus Iris. W. Rickatson Dykes. Demy folio, 246: with 47 coloured drawings by F. H. Round, one coloured plate of seeds by Miss Cardew. Camb. Univ. Press, 1912. Six guineas nett. The coloured plates of this handsome volume are very good. The varieties of *Iris Pseudacorus* the author considers to be “various combinations of unit characters which might be proved to behave in accordance with Mendelian principles.” The var. *Bastardi* he mentions as having been found in a field near Llanfairfechan. He says a certain
proportion of seedlings of the golden-yellow type are pale yellow flowered forms. No reference is made to the var. *citrina* of *Iris foetidissima*, nor to the English habitat of *I. spuria*, for as such he named the Lincoln *Iris* I sent him last June: but the figure does not well represent the English form, and the treatment of *spuria* as a whole does not commend itself. The book is an important addition to the literature of a beautiful and popular genus.


Linnaeus Flora Anglica. G. Claridge Druce questions the validity of citations from this work to supersede the names in the *Species Plantarum*, and doubts the wisdom of bringing it into the arena of botanical citation, since it is ignored by Linnaeus in any of his works. pp. 154-161.


This Journal, we regret to hear, is to be discontinued.


**Flora of Banffshire.** By W. G. Craib. In the Transactions of the Banff Field Club. 1911.


**Plant Associations of Flamborough Head.** T. W. Woodhead, Ph.D. *Naturalist* 1912, p. 219.


Sir Joseph Hooker and Charles Darwin: the history of a forty years' friendship, Prof. A. C. Seward.

Prof. O. Drude, a paper of great interest treating *inter alia* of the origin of British Flora, pp. 354-363.


**ON THE INHERITANCE OF CERTAIN CHARACTERS IN THE COMMON GROUNDSEL (Senecio vulgaris) AND ITS SEGREGATES.** By A. H. Trow, D.Sc., F.L.S. *Journal of Genetics* ii., 1912, pp. 239-276, with 24 figures. This is an extremely interesting and valuable paper, in which is shown the permanence of the characters which mark what the author terms the elementary species *praecox* (6 generations), *latifolius* (5 generations), and *multicaulis* (5 generations), all of these forms being non-radiate. These he crossed with the rayed form (*erectus*) and about 25 per cent. of hybrids were obtained, thus demonstrating to some extent that the permanence of these forms under culture is not due to apogamy. The rayed form *lanuginosus* (*S. vulgaris*, var. *lanuginosus*, Trow) Druce in *Report* 1910, p. 569 keeps true to its characters through four generations, and crossed readily with *praecox*, *erectus*, and *multicaulis*, as many as 45 per cent. of hybrids being obtained. In addition to the foregoing, Prof. Trow says five other forms maintained their characters in cultures. These results go to prove the fixity of certain characters, and the existence of elementary or micro-species which a certain section of writers reject with scorn, simply because they lack the critical acumen required to discriminate them.

PLANT NOTES FOR 1912, ETC.

JOURNAL OF BOTANY. West, Newman & Co., 1912. The following are some of the papers which will be found of interest to British field botanists:

Change of Climate and Woodland Succession, p. 247, Rev. E. A. Woodruffe-Peacock.


*Polygala vulgaris* var. grandiflora, p. 229, Ar. Bennett.

A New Variety of *Parnassia palustris*—var. condensata, W. G. Travis and J. A. Wheldon, p. 254.

Notes on Flora of Shetland, W. West, pp. 265, 297.
Note on *Rubia suberecta*, E. G. Gilbert, p. 280.
Jersey Plants, S. Gasking, p. 316.

**Was Oenothera Lamarckiana, Ser. a form of Oen. grandiflora, Sol.?** By B. M. Davis. *Bull. Torrey Bot. Club*, 39, pp. 519-533, 1912. An affirmative reply is given to this question, the name *Oen. Lamarckiana* being cited as of De Vries, and that plant being considered a hybrid by the author.

**Further Hybrids of Oenothera . . . . that resemble O. Lamarckiana.** B. M. Davis in American Naturalist, 1912, 377-428.

**Proceedings of the Linnean Society for 1912.** In this number will be found an excellent memoir of the late Sir Joseph D. Hooker by Prof. Oliver, and a very valuable Index to the Linnean Herbarium, pp. 152, by B. Daydon Jackson. Also an account of the distribution of *Elodea canadensis*, Mich., in the British Isles in 1909, by A. O. Walker, pp. 71.

**Annals of Botany**, vol. xxv., January 1912. Weeds of Arable Land in Relation to the Soils on which they Grow, by W. E. Brackley,


**Synopsis der Mittel-europäischen Flora.** P. Ascherson and P. Graebner. Lieferung 75 and 76. Bogen 41-50. Sept. 3, 1912, pp. 641-800. Santalaceae, Loranthaceae, Aristolochiaceae, Rafflesiaceae, and Polygonaceae. This classic work still keeps up its reputation. The *Rumices*, although arranged in a different sequence are, so far as this country's representatives are concerned, practically identical with the names in the *List of British Plants*. *R. limosus* is treated as a hybrid of *R. maritimus* and *R. conglomeratus*, as it figures in the *List*, although its hybrid origin has been doubted by one or two British botanists. The authority for the British *R. conspersus* should be Areschoug. Hartman's *conspersus* is the closely allied *obtusifolius x aquaticus*. An older name for *R. Acetosella* var. *angustifolius*, Koch is given in the *Synopsis*, viz., var. *tenuifolius*, Wallroth *Sched* 1822, p. 186. It is gratifying to learn that as all the copies of the first edition have been exhausted, the authors are already at work preparing a second one.

**Flore de France.** Georges Rouy. Tome xiii., pp. viii. 548. May 1912, Deyrolle, Paris, 10 francs. Alismaceae—Cyperaceae. In this cheap and comprehensive work M. Rouy presents us with many new ways of looking at things, and not a few interesting problems. He considers *Narcissus incomparabilis* to be a hybrid of *N. major* with *poeticus*. Under *Orchis maculatus*, what he calls *genuinus*, Reichb. with "épî grêle, subcylindrique: labelle faiblement 3-lobé, le lobe médian plus petit que les latéraux," seems to suggest the *O. ericetorum*, Lint., and to this is related the *O. helodes*, Griseb., while his *trilobatus*, Brèb., appears very much like the common British


**Wonders of Plant Life.** S. L. Bastin, 8vo. Cassell, London, 1911, 3s 6d.

**A Popular Dictionary of Botanical Terms.** G. F. Zimmer, 8vo., 122 pp. Routledge, 2s 6d.


**Deutsche Flora.** H. Cossman, 8vo. F. Hirt, Breslau, 7s 6d.


**Herbals, Their Origin and Evolution, 1470-1670.** Agnes Arber. Royal 8vo. pp. xviii. 254, 21 plates, 113 fig. in text. 10s 6d nett. Cambridge University Press, 1912.
In the Geraniaceae the varieties of *G. Robertianum* are taken from Rouy and Foucaud's *Flore de France*. The *Vienna Actes* do not seem to be very closely followed. For instance, under *Geranium sanguineum*, L., the Isle of Walney plant is called var. *prostratum* (Cav.) Pers. *Syn. 1807*, ii., p. 234, while the oldest combination cited is *G. sanguineum* var. *haematodes*, Burm. *f. Sp. Geran.* 16, 759. The author says it is the *G. prostratum*, Cav. *Diss.* 1787, iv. p. 196. It is the *G. lancastriense*, Mill. *Gard. Dict.* 1768, n. p. 4. The var. *haematodes* is the oldest combination and *lancastriense* the earliest trivial name. *G. pusillum* is attributed to Burman fil., but Linnaeus gave it that name in the earlier edition of the *Systema*. *G. lucidum* is said to be glabrous, but we have plants in Britain with long hairs. *G. sylvaticum* var. *Wanneri*, Briq., is said to have the habit of *aconitifolia*, but is a tall plant with large pale green leaves, which suggests that the Scottish plant, with pale rose-coloured flowers recorded as that variety, has not been correctly identified. A form *sublilacinum*, G. G. Westerlund (*Bot. Not.* 1906, p. 23) is described in the same pages.


**Beih. zum Botanischen Centralblatt, xxix. p. 16.** Anthyllis-studien. W. Becker. In this paper the author deals with the various forms of this polymorphic genus, and gives details of distribution, which are, however, very meagre for England. A plant from the Isle of Wight he says come near to *A. Sprunerii*.
The two forms of Monotropa are treated as distinct species, i.e., M. glabra and M. multiflora. Loiseleuria is retained vice Azalea. Arctostaphylos alpina is placed in a distinct genus under the name of Arctous alpina, Niedenzu. The white-fruited Vaccinium Myrtillus is var. leucocarpum, Dumort. Lappula is rightly used instead of Echinospermum, and Satureia is made to include Calamintha and Clinopodium. As contrasting with the brevity of the treatment recently accorded to the British Mints, the authors of the Flora of the Tirol recognise no less than 127 species. Solanum miniatum is regarded as a full species, = S. alatum, Moench, and it appears to be S. nigrum var. rubrum, Miller. Melampyrum pratense is split into two species, viz., M. pratense, L., and M. vulgatum, Pers., the latter indeed a valid name, being our common British plant. Under it I put my var. hians. To vulgatum also belongs the vars. latifolium and ericerorum. Plantago sphaerostachya is made a species, and there is also P. montana, Huds. Fl. Angl. 1762, p. 52, = P. atrata, Hoppe, which is surely incorrect. Galium palustre, elongatum, and maximum are ranked as distinct species. Erigeron alpinum becomes Trimorpha alpina. Arctium nemorosum and A. intermedium, Lange, are united under the name of A. macrospermum, Dalla Torre and Sarnt., but according to Thellung this is not a valid name because nemorosum, Lej., is earlier than macrospermum. The Hieracia number 727 species! The authors appear to ignore Miller’s Gard. Dict. and Hill’s Brit. Herb., and they cite Adanson for many of the genera which were established previously by those British authors. The whole volume is well and clearly printed, and a very full list of localities is given.

ILLUSTRIERTE FLORA VON MITTELEUROPA. G. HEGI, Lief. 15-21, J. F. Schmanns Verlag, Munchen, 1912.

OBITUARIES.

ALFRED FRYER, born at Chatteris, Cambridgeshire, on Christmas Day, 1826, died at Chatteris, on February 26, and was buried at Doddington, in the same county, on February 29, 1912; one daughter by his first wife, and six children of his second marriage surviving him. He was educated at Leicester, where he made the acquaintance of
Bates, who afterwards became the celebrated naturalist of the Amazon, and Bates introduced him to A. R. Wallace. Fryer's father was a wealthy gentleman farmer, besides being partner in a brewery, and unluckily in the latter business he lost his fortune. His mother, Elizabeth Fortescue, was a native of Huntingdonshire. A rich aunt settled upon Alfred a house and large garden, and made a will in his favour; but subsequently, after she was eighty years of age, she bequeathed her property to another branch of the family. The consequence was that Fryer, who had received no special professional training, but had followed his own tastes, which from a very early age had been directed towards Natural History, was left practically stranded. As a boy he preferred collecting fossils to doing school work, to which he had a marked aversion, though he was fond of reading, and even at the age of five he could read French stories. On one occasion, during a children's party which was given on his account, he suddenly disappeared, and after some searching he was discovered in one of the bedrooms with a large pile of books beside him. And so he grew up an unpractical man, very fond of poetry and general literature, with considerable artistic taste, able to read French, German, Latin, and Dutch, besides being a keen student of ornithology, conchology, and entomology. His friendships were many, and included such distinguished men as Wallace, Coventry Patmore, Dante Rossetti, and several artists. Of course these tastes and predilections were not the sort of heritage that bring grist to the mill, neither was his lovable impracticability conducive to worldly success. However, he was supremely happy in exploring his native fens, of which and of the general natural history of his neighbourhood he had an unrivalled knowledge. At one time he possessed an extremely valuable collection of the Lepidoptera of his district. His explanation of the disappearance of the Great Copper Butterfly is worth recording. In his opinion the extinction of this lovely insect was not due to the drainage of Whittlesey Mere, but in reality to heavy floods which occurred during the larval stage and drowned them out, although no doubt the rapacity of reckless collectors had previously depleted their numbers. The total disappearance of this butterfly is certainly remarkable, since its food plant, the Great Water Dock, is still very abundant.

The date of Fryer's taking up botany is a little uncertain, but it is known that he was in correspondence with Babington as early as 1876. He himself contemplated writing a Flora of Huntingdon, a
portion of which (*Polygonaceae* onwards) is now in my possession, and he formed a large herbarium of Fenland plants, one portion of which is at present in the hands of Mr Charles Bailey, while the remaining portion, including the *Compositae*, the *Orchidaceae* and concluding orders (exclusive of the Pondweeds), was kindly given to me by his daughter. The specimens were always well selected, carefully preserved, and amply illustrate the species. In the eighties Fryer contributed a number of records to the second edition of *Topographical Botany* (p. 575) for Hunts and Cambridgeshire, and then he began the critical study of the Pondweeds, for which purpose he was most favourably situated. This he did with the utmost assiduity and thoroughness, never being satisfied with a single specimen of a species, for he went so far as to say that even two hundred would be inadequate. His critical eye soon detected new forms and hybrids, and his series of *Potamogeton gramineus* and *lucens* showed, he said, how these two distinct species were connected together by a chain of graduating forms without one intervening gap. This magnificent collection of Pondweeds, consisting of 5450 sheets, has, through the kindness of his daughter and Mr Charles Bailey, been presented to the National Herbarium at Cromwell Road, together with the whole of Mr Morgan's drawings made for the *Pondweeds of the British Isles*.

This close and minute study of the group led Fryer to commence his *magnum opus*, entitled *The Potamogetons (Pondweeds) of the British Isles*, a work in quarto size, published by Lovell Reeve & Co. The parts are dated as follows:—I.-III., 12 plates, published 18th June 1898, 21s; IV., V., VI., 12 plates, 20th December 1898; and VII., VIII., IX., 12 plates, 16th January 1900. This work established his reputation as a systematic botanist: the text is exceedingly good, and abounds with instructive notes, while the figures drawn by the late R. Morgan are excellent. Unfortunately Fryer did not finish the work, although nearly all the plates were drawn: some friction arose between him and his publishers, and I am afraid my dear friend was a little difficult to manage, if rubbed up the wrong way. At any rate, the progress of the work was stopped. As we had been corresponding for some years, on hearing that straightened circumstances accounted for the delay, I ventured

*Mr C. Bailey tells me that on specimens of *P. lucens* in his herbarium, Fryer notes that it was the first specimen gathered by him of any *Potamogeton* —June 16, 1860.*
to call on Fryer in 1903, and found him a most delightful and accomplished man, but (like the Fellows of a certain Oxford College) a mere child in finance, yet so independent in spirit as to decline all offer of assistance. Nor did the res angustae domi lead to any want of respect being shown him by his neighbours. They recognised his merits, and admired his character and ability. He might have been induced—under pressure—to accept the Royal Bounty; and a petition was drawn up and signed by the Lord Lieutenant of the County, the Bishop of Ely and other important people. It had, however, to be dropped, as one special name which I was told it was essential to obtain, could not be procured. Eventually a small grant was made by the Royal Society, but it was quite insufficient to relieve him from doing common work which anyone could have done, in order that he might do work which hardly anyone else could do so well.

But Fryer never grumbled at his poverty: he was blessed with affectionate children, and he loved his work in his garden. One day when I said to him: “Why don’t you get on with the water ‘Pots,’ and give up this drudgery?” he replied: “how can a man do Pondweeds when he has a garden to look after?” And then he took me out to see this wizard’s beguiler, as I called it; and when I saw it my breath was taken away, for it was no ordinary garden that met one’s view. Great Burdocks, Milk Thistles, Wild Roses, “Darnel and all the weeds that grow in our sustaining corn” were flourishing in rank luxuriance. He caught the amazed and amused look in my eye, and exclaimed, “How can a man keep his garden clean when he has Pondweeds to look after?” and then the welkin rang with our joint merriment.

We used to have delightful rambles together, and at one time or another he showed me all the localities for his special Pondweeds. He knew them all by heart, and he could tell in a moment from what precise locality each gathering came from. One day he and I made a special search for coriaceus, and on the way we came to a deep dyke with steep sides. I implored him not to try to cross it, but he replied that he had always done so, and meant to do so again. The result was that in a few moments he was on his back in the water; and it was no easy matter to get him out again. He was a heavy man, my own frame was slight, and the sloping bank gave no secure standing place. It was impossible for me to raise him, and he for a moment
seemed to be quite unnerved, but on my telling him that I had at last solved the question of his religion, because I now saw that he was a baptist by immersion, he regained his spirits, made a good effort, and in a minute or two he was again landed on *terra firma*, with the water streaming off him in cascades. But he would not hear of going home: he insisted on walking it off, and a few hours after, by the time we reached home, he was quite dry again, rejoicing over our well-earned spoil, with which we were laden. Nor would he, even for his stomach's sake, take any stimulant, but contented himself with his Spartan fare of bread and cheese and an apple. For weeks together he never touched meat, and at last got to dislike it. To my great delight, he called on me early on the morning after the adventure I have related, none the worse, but, on the contrary, quite cured as he said of the sciatica which had recently been troubling him! Even at this advanced age he would walk to Ely, twelve miles away, to see a cricket match; stand all day, and walk back home, having partaken of nothing in the interim but a bottle of ginger beer! His birthdays were always signalised, until the last two, by a twenty mile walk.

As will be gathered from what I have said, Fryer was a determined optimist. The dull, prosaic fenland presented to him landscapes of delightful and entrancing beauty. The heavy November clouds had their delicate tints and tones of colour on which he used to dilate again and again. During our walks together, often was I called upon to admire the hedgerows, “those liberal homes of unmarketable beauty,” or to watch the flight of waterfowl, or not unfrequently to look over a gate and see a crop of oats such as is only to be found in fenland, and then often he would enter upon some long metaphysical argument in which more than one of us lost his way. He was a charming letter writer, and his natural cheeriness was amply displayed in his correspondence.

During the last three years of his life, which were rendered more comfortable by his election as a recipient of the Murdoch Trust, through the recommendation of my two kind friends Sir A. Geikie and Mr A. Montgomerie Bell, he returned to the study of the Pondweeds, being stimulated, I think, by the discovery of his *P. Billupsii* in Hunts by Mr Hunnybun and myself, and he greatly rejoiced when I found another of his very local forms—*involutus*—in great plenty in the Northamptonshire fenlands. The visits to him of Mr A. H. Evans were much appreciated, and did much to encourage him. His health
kept good to within a few days of his death, when an attack of influenza weakened even his powers of resistance, and he succumbed from heart failure.

From the year 1884 until 1897 he was a valued member of this Club, and contributed excellently prepared specimens. Since 1907 he has been a corresponding member, and in that year he was elected an associate of the Linnean Society, an honour which was greatly appreciated by him. His work on the Pondweeds will, we believe, be completed by Mr Arthur Bennett, a fellow-worker in the same field, to whom Fryer dedicated *Potamogeton Bennettii*. He was much too big a man to be swayed by narrow jealousies: to know him was to love him: his very unworldliness had a great charm, and all will share the deep regret alike of his children and of his fellow-botanists, that so short a time in his prolonged life was devoted to field botany, a field for which in so many respects he was peculiarly well qualified.


*This plant Fryer says “led me to make a special study of the genus.”*

**Allan Octavian Hume**, C.B., born 4th June 1829 at St Mary Cray, Kent; died July 31st 1912 in his 84th year. The “Father of the Indian National Congress,” who was educated at Haileybury College, was one of the greatest authorities on the ornithology of India, the study of which he commenced in the sixties and worked at in his usual energetic way. During twenty-five years collecting he accumulated an enormous collection of birds and eggs, amounting to no less than 63,000 skins (it almost takes one’s breath away merely to think of the slaughter of so many feathered innocents) and 19,000 eggs; and on these he had written manuscript notes and memoranda which filled many folios. All these were preserved in his museum at Simla, but in 1884, while he was absent in the plains, it is supposed some discontented servant stole and destroyed these valuable manuscripts, as no trace of them was ever discovered. Thus perished the results of his work of a quarter of a century, as far as the literary matter was concerned. This disaster thoroughly disheartened him, as
it well might. He could have sold his collection for £10,000, but it would then have gone to the United States, so he refused to part with it, and in 1885 he made the noble gift of 82,000 birds and eggs to the British Museum (Natural History) in Cromwell Road. Of his ornithological labours I need not speak, except to remark that in 1873 he published a work on *Nests and Eggs of Indian Birds*, and in 1879, in conjunction with Capt. C. H. T. Marshall, *The Game Birds of India*, a book in three volumes, with 144 coloured plates. After his great loss he took up horticulture with characteristic zeal, and then on returning to England in 1900 he started his great collection of British Plants. This he planned on an enormous scale, and enlisted the services of Mr W. H. Griffin (now curator of the South London Institute) and of the very industrious and competent botanist, our member, Mr F. H. Davey, whose *Flora of Cornwall* was materially helped by Mr Hume. He came to Oxford, and I showed him a few plants, but his wholesale collecting made me shudder, especially when he coolly dug up Fritillary bulbs by the score and Snowflakes by the dozen, albeit I was not aware that they were to be given to the nation. The result was that I felt compelled to refrain from showing him any more rarities. In 1903 he visited Teesdale and ravaged that fair domain. The specimens he collected, however, were most carefully prepared, and, whenever possible, all parts of the plant were shown separately, as were also the seedlings in a large number of instances. In 1910 Hume purchased the freehold premises 323 Norwood Road, S.E., and adapted them for the purpose of a herbarium and library. The whole of the premises, together with furniture, &c., were vested in trustees, under the title of “The South London Botanical Institute,” having for its object the “promotion of the study of the science of Botany amongst residents of South London.” The collection of plants now numbers over 40,000 sheets. Mr Frederick Townsend, who died in 1905, bequeathed his herbarium and botanical library to the Institute; and it was further enriched in 1910 by the gift of our late member Mr W. H. Beeby’s herbarium, which was especially rich in plants from the Orkneys and Shetlands. (In my biographical notice of Mr Beeby in the 1910 Report, p. 532, I stated by mistake that his herbarium had gone to the Horniman Museum.) The South London Institute now possesses a magnificent collection, which is particularly rich in alien plants, and it is well looked after by its present custodian.
The son of Joseph Hume, he remained true to the political traditions of his father. He entered the Bengal Civil Service in 1849 and had a distinguished career, becoming in 1870 one of the principal Secretaries to the Government of India. During the Mutiny he was Magistrate of Etawah, his gallantry and resource during that critical period being rewarded by his receiving the decoration of C.B. As a boy, Hume was a friend of John Stuart Mill, and he had the advantage of being acquainted with Sir William Hooker and Jeremy Bentham. He joined the Linnean Society in 1901, and in that year sent a note to the Journ. Bot. on Impatiens Roylei, which I identified for him, and Scirpus maritimus var. monostachys, Sonder, p. 146, and in 1902 p. 115 he records Solanum rostratum, Dunal., all from Cornwall.

Respecting the Balsam he wrote on August 25, 1900: "I discovered a plant which must now be added to our English Flora—it is, I think, one of our East Indian balsams—a garden escape, of course, but now established by the thousand along at least three miles of the upper course of the Looe River. It was a sight never to be forgotten: here and there clumps of a dozen plants together: great plants five to seven feet high with great heads of bloom, a foot in diameter nearly, and innumerable side shoots all full of flower, the bigger leaves at the base of the side shoots fully a foot long—the flower from a rich 'Rose du Barri' varying through all fainter tints to nearly white, with purplish pinkish shades. I enclose a scrap with the mint, and would be grateful if you would let me know its name at your early convenience." I named it for him, and told him I had already noted the plant as a British species in the Flora of Berkshire (1897) p. 123.

William Weekes Fowler. Born February 27, 1835, at Winterton, Lincolnshire: died at the same place, March 7, 1912. Educated at Christ's College, Cambridge, taking his M.A. degree in 1860. Vicar of Liversedge, Yorkshire, for 47 years. Hon. Canon of Wakefield. Elected President of the Yorkshire Naturalists' Union in 1886. In 1880 he added Selinum carvifolia to the British Flora from Lincolnshire, a description of which, by F. A. Lees, with a plate, appeared in Journ. Bot., 1882, p. 129. Canon Fowler contributed papers to the Phytologist, 1858, p. 332, on the rarer plants of Winterton, and on Teucrium Chamaedrys, p. 416 : and many papers to the Naturalist between the years 1878 and 1890. Many notes were sent by him to the second edition of Top. Bot. (1883), and he supplied a considerable
number of new records for Lincolnshire to the Botanical Record Club Reports. I made his acquaintance when he was staying with his brother, the President of Corpus Christi College, whom he resembled, as it appeared to me, in his bluff heartiness, his genuine kindness, and in his broad way of looking at things.

THOMAS HILTON: 1833—1912. Born at Brighton, April 16, 1833, and at the age of thirteen began to assist in the grocery business which his father had established at No. 99 Church Street in 1815. This business he took over on his father's death, and conducted it so successfully that in 1890 he was able to retire, in order to devote his attention entirely to his favourite study of botany. He was appointed Hon. Curator of the Brighton Museum, at the instigation of my friend Mr Henry Willett, under whose auspices, on the occasion of one of my many visits to Brighton, I made Hilton's acquaintance. He was a man of spare frame, of very temperate habits, and an indefatigable walker. We enjoyed many rambles together, indeed, I may say that, owing to Willett's kindness, we saw almost all the plants of interest in the neighbouring country. During one of our excursions in 1899 we found *Peucedanum palustre* at Hurstmonceaux, and in 1900 the variety *tenuifolia* of *Salsola kali* at Southwick. In 1909 we went to see the great colony of *Crepis fumida* which he had discovered at Newhaven. He discovered a Batrachian Ranunculus, which Messrs Groves considered to be a hybrid between *R. Lenormandi* and *R. peltatus*, and this form they named after him × *R. Hiltoni* (J. B., 1901, 121, t. 420). He took a very deep interest in the Brighton Museum, and carefully went through the herbarium of the late Mr F. Roper, the author of the *Flora of Eastbourne*, which had been bequeathed to the Museum. He was also very assiduous in supplying for the Institution fresh specimens of wild flowers, the exhibition of which did much to encourage an interest in the local flora. Hilton was a member of this club since 1905, and his herbarium has been presented to the British Museum, Cromwell Road. After a comparatively short illness from hepatic disease he died on February 10, 1912, and was buried in the Friends'. Burial Ground, Black Rock, Brighton, my own illness preventing me from attending the funeral to pay the last tribute of respect to departed merit. I extract the following remarks from a letter written by Mr Alfred Webster on February 23: "I am sure you will agree with me in saying that all who are interested in botany will greatly deplore his
Among Sussex botanists especially it will be felt. If anyone wanted to find any particular flower, and wrote to Mr. Hilton, he could always get the information he required: no one knew so much about the Sussex flora as he did: and then none of those who were fortunate enough to accompany him in his walks—as I often was in his later years—could fail to observe how completely he had every detail of any flower you might find at his fingers' end: and he was always anxious to give his friends the benefit of his knowledge.

. . . . I have lost one of my best and kindest friends.”

Among the plants which he sent me shortly before his death were *Hieracium surrejanum* var. *megalodon* from Stedham Mill, West Sussex, and *Crepis nicaensis*, Balb. from White Hawk Down, East Sussex.

**John Piquet**, pharmaceutical chemist. Born at St Helier's, Jersey, in 1825, where he died on September 5, 1912, at the age of eighty-seven. He was apprenticed in 1837 to Mr John Ereant, a chemist and druggist, with whom he remained ten years, his working hours being from 6.30 in the morning till 11 at night. In the year 1847 he started in business on his own account, and this he continued up to the date of his death. He became a member of the Pharmaceutical Society in 1853. From his earliest years he was a keen naturalist, and devoted much attention to entomology, especially Lepidoptera, of which he formed an interesting collection of Jersey species. But gradually entomology gave way to botany, and he worked up the flora of the Channel Islands, especially of Jersey, with great assiduity and thoroughness. In the *Journal of Botany* for 1873, p. 18, which was then under the able editorship of a good systematic botanist, Mr H. Trimen, there is a record of *Centaurea paniculata* and *Scabiosa maritima*, which had been sent from Jersey by Mr Piquet, who considered them native to the island: but the former plant had been previously recorded. Mr Arthur Bennett noted in *J.B.* 1882, p. 36, *Hypochaeris maculata* and *Carduus pratensis*, which had been sent as new to Jersey by Piquet. In the *Phytologist*, 1853, p. 1135 he adds *Aceras anthropophora* from Rozel, and publishes a note on a supposed new fern in Jersey (*Phyt.* 1854, p. 149). His chief botanical paper, however, was contributed to the *Société Jersiaise* in 1896, and consisted of a list of 721 plants, besides varieties, which he had himself found in the
island; and two years later he added a supplement containing 24 additional species. In 1906 he furnished me with a further list of about a score more, which sufficiently shows his energy and acuteness of observation.

As late as the 8th of August last Mr Piquet sent me some aliens from a farm at St Ouen's, which included Plantago Psyllium, and remarked: “You can't think how many rare things I have found [there] . . . . but I am too old and weak to walk out now alone. I live in the past. I should be so glad of roots of Diotis, to re-introduce it at a particular spot at St Ouen's Bay, where it formerly grew, but was destroyed when the retaining wall was built to keep out the sea. Crambe maritima was also lost then.” He also asked me to name “two plants which came up spontaneously in gardens,” and these proved to be Satureia montana and Linaria bipartita.

I had the pleasure of making Piquet’s acquaintance as long ago as the year 1877, when in his cheery companionship I experienced the intense delight of seeing for the first time the riches of a southern flora. We traversed the Quenvais, and the prolific area of St Ouen's Bay, where he showed me Diotis, then on the verge of extinction. Now, alas, the place knows it no more. With the greatest glee Piquet pointed out to me a patch of Lagurus ovatus, which might have been covered with a pocket handkerchief; he had himself brought over the seeds from Guernsey, and sown them there. At the present time this beautiful grass grows there in millions, and has spread over a considerable area. When I was in Jersey in 1907, and told him how it had increased since he first showed it to me, he rubbed his hands with delight at the recollection of what he had done, seeing no harm, he said, but plenty of good, in thus introducing new plants from other areas; but he made no secret of his practice, and never claimed for these introduced plants any higher rank than naturalised aliens. He told me he had introduced Caltha palustris, and at one time I suspected Dianthus gallicus had come from France through his instrumentality, but now I know it was not so. At that time (1877) Ranunculus ophioglossifolius had already disappeared, but he very kindly gave me one of the last specimens gathered in the island. Many years went by before I saw him again, but in 1906 I found him still very active and enthusiastic; indeed, he took me a stern chase up the rocky hill near St Heliers, to show me Ranunculus...
flabellatus, seeds of which he had sown there, taken from plants growing at St Aubin's. In this new station it has increased considerably, but rarely or never flowers. Aided by the sight of the plant in this condition, I was enabled to find it in some considerable quantity near St Brelade's, where it must be, in Piquet's opinion, certainly native.

As an instance of his activity, I may mention the following. I told him I had seen a patch of Thesium near Don Bridge, a plant he had never found in the island. The very next morning he started off at six o'clock, and walked all the way out and back, in search of it, but was not successful. So I marked the spot by placing some stones round the patch, and the next day he marched out and found it, to his great delight.

In my papers on the Channel Islands plants in Science Gossip, 1878, p. 250, and Journ. Bot., 1907, p. 397, I have spoken of my old friend, and acknowledged my indebtedness to him for many delightful rambles in his native island in search of plants; he was as active and vigorous and botanically keen when I last met him as he had been thirty years before on our first acquaintance, and his interest in plants never flagged. His assistance is gratefully acknowledged by Lester-Garland in his Flora of Jersey, where he says: "I owe much to Mr J. Piquet, who has made the Jersey plants a life-long study."

Some years ago he presented a collection of plants to the Société Jersiaise, and another collection he left to the Victoria College; but his principal herbarium is now in the possession of his son, Mr F. Piquet, of Jersey. Mr Perrédés has contributed to the Journ. Bot. 1912, p. 374 a sympathetic obituary notice of our old friend, with a portrait.

George Maw, F.L.S., F.S.A., F.G.S. 1832-1912. Born in London, was at Agric. Coll., Cirencester, 1848-1849. Manufactured encaustic tiles in Salop. Travelled widely through Europe, North Africa, and the East. Accompanied Sir J. D. Hooker and John Ball to the Great Atlas in 1871, and wrote the valuable appendix H. on The Geology of the Plain of Marocco and the Great Atlas to Hooker & Ball's Tour in Marocco 1873. The former dedicated vol. 1874 of the Bot. Mag. to him. His chief love was for the Genus Crocus, of which he had 67 living species in his beautiful garden at Benthall. On one of his excursions he was captured by brigands. His chief
work was the magnificent Monograph of the genus Crocus, with an appendix by C. C. Lacaita, M.A., M.P., F.L.S., Dulau, 1884, with 71 coloured plates, many drawn by the author. He died at Kenley, Surrey, Feb. 7, 1912.

Mr Britten (Journ. Bot. 1912, p. 296) says: “We regret to record the death of Dr Mordecai Cubitt Cooke.” We are delighted to find, however, that ‘the statement is somewhat exaggerated,’ since the veteran fungologist writes to the Daily Telegraph Nov. 1, 1912, that he is “not ill or suffering from other than the infirmities of my time of life—i.e., 87 years.”

NEW COUNTY AND OTHER RECORDS.

In addition to those already given, the following from various sources may be singled out for citation: (They date from 1912 except where other dates are given).


114. Fumaria parviflora, Lam. Near Aldbourne, N. Wilts, Miss Todd, vide spec.


299. Viola hirta, L. Stanner Rocks, Radnor, Mrs Banks and G. C. Druce.

301 (2). Viola epipsila, Ledeb. Near Silchester, N. Hants; Near Omagh, Tyrone, G. C. Druce.


408 (2). **S. scotica**, Druce. Clova, Forfar; Callater, S. Aberdeen, G. C. Druce; Stob Coire, Westernness, as *saginoides*, Shoolbred, 1891; Glas Thulachan, E. Perth; Stuich an Lochan, Syme; Craig Caillieach, M. Perth; Glen Enrich, Easternness; Also Ben Lawers, Robert Brown, 1794, in *Hb. Brit. Mus*.


467. **Linum angustifolium**, Huds. (*L. bienne*, Miller *Gard. Dict. 1768.*) Near Hawnby, York, N.E., showed me by the Hon. Mrs. J. Savile last Sept. It appears to be native, as it is in an upland pasture. G. C. Druce.

475. **Geranium versicolor**, L. Llanstephan, Carmarthen, D. Hamer in *lit*.

477. **Geranium sylvaticum**, L. Abundant by the Gryweney river, Monmouth, Miss Eleanor Vachell, vide spec.

485. **Geranium rotundifolium**, L. Between Llanelly and Bynes, Carmarthen, D. Hamer, in *lit*.

531. **Laburnum anagyroides**, Med. Well established especially in the elevated districts. In Abergwili parish, alt. 900 ft., there are miles of hedgerows mainly composed of self-seeding Laburnum, D. Hamer, in *lit*.


619. **Trifolium striatum**, L. Galashiels, Selkirk, Miss I. M. Hayward, vide spec.


1016. **Sedum album**, L. Established in gravel pit, West Wickham, Kent, W. H. Griffin, in *lit*.

1032. **Myriophyllum spicatum**, L. Pembrey and Llanelly, Carmarthen, D. Hamer, in *lit*.


1045. **Lythrum hyssopifolia**, L. Near new timber in a gravel drive, Miss Robinson and Miss Phyllis Buxton, Sussex; by the Welland, Barrowden, Rutland, Rev. E. A. Woodruffe-Peacock.


1399. **Senecio viscosus**, L. Gloster E., Riddelsdell ex J.B., 1912, p. 315, Ware; Herts, G. C. Druce.


1432. **Cirsium oleraceum**, Scop. Alien. Tayside, about a mile below Perth. W. Barclay, in *Scot. Bot. Rev.*, 1912, p. 235. Miss I. M. Hayward showed it to me in 1909 on the margin of a small loch near Selkirk where no other alien was present, and where it had been known for some years, G. C. Druce.

1646 (2). **Taraxacum spectabile**, Dahlst. Teesdale, York, and Durham; near Kington, Hereford; Llanberis, Carnarvon; Snowdon 1905; Sligachan, Skye; Glen Cahir, Co. Clare, 1909; G. C. Druce.


1699. **Erica vagans**, L. Quite wild about half mile from the Inn at Stronachlacher, W. Perth, near the head of Loch Katrine, to all appearance native, J. W. Oliver, in *Science Gossip*, 1877, p. 19. A record to be confirmed.


1912. **Veronica anagallis-aq.**, L. vera. Wendlebury, Oxford; Eddlesborough, Beds and Bucks; near Whithorn, Wigton; Rescobie, Forfar, G. C. Druce.


2052. **Stachys germanica**, L. Stoke Rochfort, Lincoln N., 1820, Blake, in *Hb. Druce*.


2122. **Chenopodium murale**, L. Alien. Isle of Moy; Edinb., vide spec.; Beighton, Derby (see *Fl. Derby*, p. 249 as *C. album* var. *viride*, *Report* 1897, p. 562.)


2246. **Ulmus Wheatleyi**, Hort. Alien. Thornborough, Bucks; Silverstone, Northants; Wallingford, Berks, G. C. Druce.

REPORT FOR 1912.

2289. **Populus canescens**, Sm. Strathmore, Forfar; Kirkcudbright; Dumfries, G. C. Druce.


2296. **Ceratophyllum submersum**, L. Llanelly, Carmarthen, D. Hamer, in *lit*.


2317. **Helleborine media**, (Fr.) Druce. Ayott Green, Herts, 1821; Blake, as *latifolia*, in *Hb. Druce*.


2327 (2). **Orchis O'Kellyi**. Near Omagh, Tyrone, G. C. Druce.


2396. **Allium vineale**, L. Llanstephan, etc., Carmarthen, D. Hamer, in *lit*. I saw it there in 1872.


2466. **Sparganium minimum**, Fr. as *S. natans*. Salop, Blake, 1822, in *Hb. Druce*.


2528. *Cyperus fuscus*, L. One tuft by a stream in a very marshy place near Suleham, Berks, Mr V. Murray, 1911. This year we sought vainly for it; the surrounding vegetation is very luxuriant —*Angelica, Scrophularia aquatica* over nine feet high and *Stellaria aquatica* var. *scandens* eight feet high.


2683. Agrostis verticillata, Vill. Alien. “Glasgow. Mr Curtis thinks it a distinct species, and I have no doubt of its being so.” G. Don, in Hb. Blake, circa 1796.


2872. Equisetum hyemale, L. Hants. S., J. F. Rayner, in J.B.


2923 (2.) Azolla filiculoides, Lam. Woodbastwick, Norfolk, 1911; near Queenstown Junction, Co. Cork, G. C. Druce, 1911.
2924. ISOETES LACUSTRIS, L. Treifi Pools, Cardigan, Prof. R. H. YAPP and Prof. WEISS, in lit.

2934. NITELLA OPACA, Ag. Llanelly, Carmarthen, D. HAMER, in lit.


2949. CHARA VULGARIS, L. Pembrey, Carmarthen, D. HAMER, in lit.

CORRECTIONS.

Report 1897, p. 562.—Chenopodium album var. viride, L. Beighton, Derby, W. R. Linton. This is teste Dr Murr a form of C. murale, L., and a new record for Derby.

Report 1911, p. 26, line 5 from bottom, for "dense" read "laxer."

Report 1911, p. 56, et Report 1909, p. 469.—Chenopodium urbicum var. intermedium, Dr Vigurs. My specimen is correctly named, which Dr Murr corroborates.

Report 1911, p. 139.—Deyeuxia neglecta var. Hookeri, Syme. Ellis’ Cut, Co. Down. Some if not all the specimens are Agrostis alba, var. coarctata, a grass which is common on Harbour Island and other places near Lough Neagh.

MR E. W. HUNNYBUN, Homeshill, St Aubin, Jersey, who is making a series of drawings of British plants for the Cambridge British Flora, would be much obliged if members would assist him in obtaining some of his desiderata, a list of which, with other information, will be gladly supplied by him. He will defray the cost of transmission and supply tins for the plants.

MISS BERTHA REID, 26 Ardilaun Road, Highbury, N., Prof. J. PERCIVAL, The Pyghtle, Northe court Avenue, Reading, and R. Y.
STAPLEDON, Esq., Agricultural Dept., University College of Wales, Aberystwyth, would be much obliged if members will kindly supply seeds and fruits of British plants. Members willing to assist are asked to communicate with the foregoing members direct. Mr Stapledon especially wishes for *Leguminosae*, *Umbelliferae*, *Compositae*, and *Scrophulariaceae*.

Miss Reid would also like fresh examples of the British orchids (without roots).

**Lady Davy**, Wintergreen Wood, Pyrford, Surrey, wants fresh specimens of *varieties* of the British orchids.

**Mrs Adams**, 14 Vernon Road, Edgbaston, and **Miss Trower**, Stansteadbury, Ware, Herts., are painting British plants. Would members who are willing to assist in supplying specimens kindly let them know? The latter specially needs British *Rubi*.

**F. J. Hanbury**, Esq., Brockhurst, East Grinstead, is anxious to have seeds or roots of rare British species. He will defray all expenses.

**W. Norwood Cheesman**, Esq., J.P., The Crescent, Selby, York, will be glad to receive or exchange specimens of *Mycetozoa*.

The Club is greatly indebted to the Director and Staff of the Royal Gardens, Kew, and to the Keeper and Staff of the British Museum Herbarium for much assistance, as well as to our foreign experts. Mr F. N. Williams and Mr E. D. Marquand have also very kindly assisted me.

May I add that any opinion expressed in the preceding pages is purely personal and necessarily in no way assumes to carry with it the authority of the Club.

With best wishes, I am yours very sincerely,

G. Claridge Druce.