THE BOTANICAL SOCIETY AND EXCHANGE CLUB OF THE BRITISH ISLES.

REPORT FOR 1918

OF THE

BOTANICAL EXCHANGE CLUB

(CONVENIENTLY ABBREVIATED REP. B.E.C.)

BY THE

EDITOR AND DISTRIBUTOR,
W. C. BARTON, B.A., F.L.S.

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The Subscription, 7s 6d per annum, and Non-Contributing Members' Subscription of 5s per annum, become due on January 1, 1919, and should be sent to

G. CLARIDGE DRUCE,
YARDLEY LODGE, 9 CRICK ROAD, OXFORD.

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J. WALTER WHITE, Esq., F.L.S.,
"WARNHAM," WOODLAND ROAD, CLIFTON, BRISTOL.

PRINTED BY T. BUNCLE & CO., ARBROATH.
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REPORT OF THE DISTRIBUTOR FOR 1918.

The number of sheets sent in by 33 contributors was 5340, covering 453 gatherings. There was perhaps less of critical interest than in recent years, doubtless owing to the stringent conditions of the fifth year of war, and some of the more critical genera were almost or entirely unrepresented.

The Editor regrets that he has not been able to secure unanimity in all cases in spite of the kindness of those who examined again the disputed specimens and reconsidered their determinations. Some of the sheets sent in were inadequate and not well selected; in the case of critical plants such as *Euphrasia* it is important that each sheet should be representative of the whole gathering. At least 12 sheets should be sent, more if possible; small contributions are entirely absorbed by the referees and comments in the *Report* are of little use to members who have not seen the plant under discussion. No mention is made in the *Report* of cultivated plants or plants recently distributed from the same locality, nor of those of which less than 6 sheets were received.

The best thanks of the Club are due to Messrs W. Barclay, A. Bennett, C. E. Britton, C. Bucknall, Dr E. Drabble, Dr G. C. Druce, Mrs Gregory, Mr J. Groves, Prof. A. Henry, Messrs A.B. Jackson, D. Lumb, Rev. E. S. Marshall, Mr W. H. Pearsall, Mr H. W. Pugsley, Rev. H. J. Riddelsdell, Messrs C. E. Salmon, J. A. Wheldon, Lt.-Col. Wolley-Dod; and to the other members whose notes appear in the following pages. The Editor also wishes to express his appreciation of help readily given by Messrs E. G. Baker and A. J. Wilmott of the British Museum, and by Dr Stapf and his assistants at Kew.

W. C. Barton,
Editor of *Report* and Distributor for 1918.

43 Rosary Gardens,
London, S.W.7.

LIST OF PARCELS RECEIVED.

	No. of Plants.	No. of Sheets.
Bailey, C.,	3	61
Barclay, W.,	2	31
Barton, W. C.,	64	675
Bickham, S. H.,	5	118
Britton, C. E.,	11	173
Brown, G. C.,	3	40
Burdon, Rev, Preb. R. J.,	9	112
Cryer, J.,	22	365
Cumming, L.,	8	78
Druce, G. C.,	54	598
Fox, Rev. Preb., H. E.,	22	54
Hall, P. M.,	23	37
Jackson, A. B.,	16	85
Little, J. E.,	10	135
Lumb, D.,	3	84
Marquand, C. V. B.,	28	505
Marshall, Rev. E. S.,	11	138
Melvill, J. C.,	4	58
Pearsall, W. H.,	8	191
Riddelsdell, Rev. H. J.,	15	317
Rilstone, F.,	5	86
Robinson, F.,	40	421
Roper, Miss I. M.,	15	228
Salmon, C. E.,	5	40
Stephenson, Rev. T.,	1	17
Travis, W. G.,	9	81
Vigurs, C. C.,	3	50
Waddell, Rev. C. H.,	10	65
Wade, A. E.,	6	105
Webster, A.,	8	66
Wheldon, J. A.,	6	36
White, J. W.,	22	253
Wilson, A.,	2	37
Total,	453	5340

Thalictrum —— ? (*T. flexuosum* Reichb., J. G. Baker in *Fl. N. Yorks.*). Below Wynch Bridge, Teesdale, Durham, v.-c. 66, July 4, 1914.—P. M. HALL. "Neither anthers nor fruit; as it stands I can only say *T. minus* L., agg."—DRUCE.

Ranunculus Flammula L., forma ? [336]. Damp ground near Fort le Marchant, Lancresse Common, Guernsey, August 8, 1912. The leaves in this plant are lanceolate rather than linear and differ in this respect from Mr Hurst's Savernake Forest specimens sent to the Club in 1913 per Mr Druce. The stem is arcuate, rooting at the nodes, so that it does not fit any of Wallroth's varieties. I suppose it is one of the many forms which Dr Glück considers due to situation.—W. C. BARTON. "As Mr Barton says the leaves are broader than the true *tenuifolius* Wallr., but not so much as to exclude it from being put under that creeping state of *Flammula*."—DRUCE. "A peculiar state, due to situation, I believe. It may come under Syme's *pseudo-reptans*, but is broader-leaved than var. *radicans* Nolte of northern lake-sides; and some of the specimens are remarkably tufted."—MARSHALL.

R. trilobus Desf. [335]. Fowl run, Mildenhall, Suffolk W., v.-c. 26, June 6, 1913. Named at Kew.—W. C. BARTON. "Yes; but more slender and branched than in my Tweedside specimens. It is treated in *Fl. Fr.* as a subspecies of *sardous*."—DRUCE.

R. sphaerospermus Boiss. & Blanche. Runcton stream, Sussex W., v.-c. 13, May 20, 1918.—R. J. BURDON. "Quite agrees with specimens from Gloster thus named for me by Mr Groves."—RIDDELSDELL.

Aconitum Napellus L. Streamside in the South Hams, Devon S., v.-c. 3, June 1918.—C. V. B. MARQUAND. "In native localities, *e.g.*, by the rivers Ely and Rumney in Glamorgan and Monmouth, this species seeds and multiplies with great freedom; this I have not observed to be the case with mere garden outcasts, though perhaps in such cases disturbance of the surroundings would prevent their spreading."—RIDDELSDELL. "*A. Napellus* L., var. *laciniosum* Seringe Mus. Helv. i., 159, 1823. 'Floribus laxe spicatis paniculatisque coeruleis amplis subconicis, laciniis foliorum profundis linearibus acutis. Cette variété se distingue de toutes les autres par un casque très bombé, embrassant les sépales latéraux et se prolongeant insensiblement en un bec aigu. Les feuilles ont leurs lobules très longs-linéaires et terminés insensiblement en pointe.' This plant has been known in England some hundreds of years and is not known wild elsewhere. Seringe's solitary specimen at Kew, though incomplete, is sufficient to establish the identity. It is not known whence he got the specimen he described, though it is possible

it came from this country. It is sufficiently distinct from the Scandinavian plant and from the common Swiss plant, var. *compactum* Reichb., by its early flowering, thin texture of leaves and lighter-coloured flowers in addition to the characters stated by Seringe. Even on a conservative standard it would seem to be a good variety and should replace the Linnean plant in our British lists. I am indebted to Dr Stapf for help in the preparation of this note."—BARTON.

Papaver Rhoeas L., var *maculatum*. Burpham, Sussex W., v.-c. 13, July 1918.—G. C. DRUCE.

P. Rhoeas L., var. *caudatifolium* (Timb.). [6901]. Burpham, Sussex W., v.-c. 13, July 1918.—G. C. DRUCE. "Unfortunately my example is only in bud, so the important capsule character (ex R. & F. *Fl. Fr.*) 'largement ovale, rarement subglobuleuse, toujours atténuée à la base" cannot be noted. I presume Mr Druce satisfied himself as to this, as leaf-cutting in *P. Rhoeas* type seems to wander in all directions."—SALMON.

Argemone mexicana L. Waste ground, Bradford, v.-c. 64, August 12, 1918. This is the Devil's Fig—Fico del Inferno—of the Spaniards; the Yellow Thistle of the West Indies; and the Cardo Santo of Brazil.—J. CRYER. "The flowers in my specimens appear whitish. If so when fresh, it is the var. *ochroleuca* Sweet, which also appeared on Tweedside."—DRUCE. "All had cream-coloured petals."—CRYER.

Barbarea vulgaris (R. Br. in) Ait., var. *arcuata* Fr., subvar. *brachycarpa* A. B. Jackson (det. A. B. J.). Wymondley Road, Hitchin, Herts. v.-c. 20, August 19, 1918. All sheets from one plant, the same from which I distributed the plant to the Watson Club in 1917. The plant looks likely to live another year, as it has put out fresh radical leaves.—J. E. LITTLE. See *Journal of Botany* 207, 1916.

B. vulgaris (R. Br. in) Ait., var. *silvestris* Fr. Purwell field, Hitchin, Herts. v.-c. 20, June 24, 1918. Mr A. B. Jackson confirms the name.—J. E. LITTLE.

B. intermedia Bor., var. *fallax* Lor. & Barr. [1995]. Oat field, Lower Morden, Surrey, v.-c. 17, July 2, 1918. Well marked by the widely spreading or divaricate pods.—C. E. BRITTON. "Distinguished from the type by the spreading silicles as defined by the authors in *Fl. Monty.* i., 42."—DRUCE. "I believe the characters of this variety are even less stable than those of the varieties of *B. vulgaris*; it is not unusual to find pods widely spreading and ± erect on the same plant."—JACKSON.

Arabis hirsuta Scop., var *glabrata* Syme. Friday Church, Burpham, Sussex W., v.-c. 13, May 16 and June 11, 1918.—R. J. BURDON. "The gathering included some normally hairy examples of type; these were removed and the remainder distributed in pairs as described by Mr Riddelsdell below."—BARTON. "One of my two specimens is glabrous save for a few hairs at the base of the stem; the other is thinly hairy the whole length of the stem. Leaves glabrous. This does not quite answer to book descriptions, but it is near enough to be put under the variety."—RIDDELSDELL. "I am glad to see this interesting plant from a fresh Sussex station and one considerably further west than those previously reported. As noted in *Watson B.E.C. Report* 51, 1917-18, I then felt inclined to include hairy-stemmed plants under var. *glabrata*, and with these specimens before me the inclination is strengthened rather than weakened."—SALMON.

Cardamine pratensis L., var. *palustris* (Peterm.), forma *alba*. Loddon Bridge, Berks., v.-c. 22, June 1918. Plants with nearly pure white flowers occurred with the ordinary lilac-coloured form near Loddon Bridge, where Mr Higgins thought he found a hybrid of *C. pratensis* with *C. flexuosa*.—G. C. DRUCE.

C. flexuosa With. Ditch near Brandon Station, Warwick, v.-c. 32, June 3, 1918. This is probably frequently overlooked, but no record of it has been made in the neighbourhood for many years.—L. CUMMING.

C. flexuosa With., var. *umbrosa* G. & G. Banks of the Rea brook, a tributary of the Severn, Shrewsbury, Salop, v.-c. 40, May 1918. As considerable difference of opinion on the part of experts seemed to exist with regard to my last sending of this plant to the Club, I again forward some luxuriant examples. It grows in rich alluvial soil often overflowed in winter. *C. hirsuta* L., typical, occurs at a higher elevation, but no intermediates.—J. C. MELVILL. "Yes, the var. *umbrosa* (Gren. & Godr. Fl. Fr. i., 110, as var. of *sylvatica*), Druce Fl. Berks. 50, 1897."—DRUCE. "My plants seem to possess the broader, angular or cut segments of the upper leaves described by Grenier and Godron for their *umbrosa*, but is not that perhaps a luxuriant shade-grown state of the type?"—SALMON. "A shade form, not uncommon in such situations; I do not see any good varietal character."—MARSHALL.

Erophila verna Meyer. Garden path and at foot of a wall, Wigginton, Oxon, v.-c. 23, April and May 1918. I think it is *majuscula*.—H. J. RIDDELSDELL. "The larger plant has the habit of *E. majuscula* Jord., but is distinguished by the shape of the silicle which is almost that of *E. praecox* DC., but attenuated at the base. It is nearest to *E. decipiens* Jord."—BRITTON.

E. virescens Jord. [4466]. Near High Force, Teesdale, Durham, v.-c. 66, April 18, 1918. Frequent near High Force, from 900 to 1600 ft. or more. The only segregate observed. Also [4467] a more hairy state, unmortared wall near the High Force Hotel, above 1000 feet, April 27, 1918. An unusually hairy state, with paler, less fleshy leaves, and often remarkably large; these modifications are clearly due to situation.—E. S. MARSHALL.

E. furcipila Jord. Among short grass, sandy seashore, Bardsea, Lancs. N., v.c. 69b, April 14, 1918.—W. H. PEARSALL. Mr Pearsall writes later: "I have just discovered that I put wrong labels to my *Erophila*; the ? *furcipila* was insufficient for distribution. My notes on the one sent in are—'small dwarf form with broadly elliptical pods, all hairs simple. Expanded flowers 3 mm., white. All leaves green, a few tips red. Pedicels usually solitary or two, rarely three. Lower pedicels longer than silicle, often twice as long, but these measurements are from young plants.' ? *E. minuscula* Sudre." "This seems to agree fairly well with *E. lepida* Jordan (= *E. praecox* Stev., var. *lepida* Rouy) as the flowers are about ½ mm. longer than in *E. brachycarpa* Jord. The silicles are too small for any form of the stirps *leptophylla* under which Rouy places *E. furcipila*. The largest in Mr Pearsall's gathering measures 4 × 2.5 mm.; in *E. furcipila* they should be 5.5-6.5 × 2 mm., and so giving a much narrower outline to the silicle. The hairs are bifid with a fair number of simple ones intermixed, in fact some leaves have a preponderance of simple ones. It is thus somewhat intermediate between Jordan's group of *glabrescens* and *brachycarpa*, but Rouy is no doubt quite right in placing it under *E. praecox* Stev."—WHELDON. "This has elliptical silicules 3½ × 2½ mm. The majority of the hairs are simple, the bifid hairs being less numerous. It comes under *E. praecox* DC."—BRITTON. See *Report* 88-99, 1914.

Cochlearia danica L. Hilbre Island, Cheshire, v.-c. 58, June 22, 1918.—W. G. TRAVIS. "Yes."—Druce.

Sisymbrium orientale L., var. St Philip's Marsh, Bristol, June 1918.—G. C. DRUCE.

S. officinale Scop., var. *leiocarpum* DC. [14]. Waste ground, Leicester, v.-c. 55, August 1918.—A. E. WADE. "Yes; often of adventitious origin."—DRUCE.

Camelina sativa Crantz. On a dust heap at Eastville, Bristol, Gloster W., v.-c. 34, September 20, 1918.—J. W. WHITE. "This must be very near *C. macrocarpa* Wierzb. (= *C. sativa*, var *integrifolia* Rouy). The silicles reach 7 mm. in length and the leaves are entire."—WHELDON. Dr Thellung names it simply *C. sativa*.

Brassica arvensis O. Kuntze, var. *orientalis*. In cornfields near Swalcliffe Grange, Oxon, v.-c. 23, June 9, 1918. As common there as the type. H. J. RIDDELSDELL. "Yes; *B. arvensis*, Scheele, var. *orientalis* (L.) Druce Br. Pl. List. See *Fl. Berks.*, 60. It differs from type by the silicles being covered with bristly hairs."—DRUCE. "In my specimen the pods are rather immature, but from the slender siliques becoming torulose, with long style, and covered with deflexed hairs, I believe the plant is *Sinapsis Schkuhriana* Reichb."—TRAVIS. "In R. & F. *Fl. Fr.* var. *Schkuhriana* (Reichb.) is placed under *Sinapsis arvensis* as a distinct variety from *orientalis*; but those authors make no mention of the hairy pods."—DRUCE.

Capsella Bursa-pastoris Medic, var. *densifolia* Mott. [1924]. Merton parish, Surrey, v.-c. 17, June 9, 1918. Typical examples of this variety.—C. E. BRITTON.

C. Bursa-pastoris Medic, var. [1965]. New Malden, Surrey, v.-c. 17, June 15, 1918. This is a well marked variety, nearer related to var. *densifolia* Mott than to any other form, but well distinguished by its more vigorous habit, its long leaves sinuately pinnatipartite with lobes more distant, entire, and of a bright green, not grey-green as in *densifolia*. The capsules are large, less triangular and more cordate-prolonged than those of *densifolia*. The distinctive features of this form seem quite to warrant ranking it on an equality with the varieties of Mott.—C. E. BRITTON.

C. Bursa-pastoris Medic, var. [1591]. Merton parish, Surrey, v.-c. 17, June 11, 1916. This is a form difficult to place, and not to be referred to any of Mott's varieties. From [1965] it differs chiefly in the narrower toothed lobes of the leaves with smaller terminal segment and deeper notched capsules tapering more rapidly to the base. It is another form requiring segregation.—C. E. BRITTON. "Similar to the 1916 Wigginton plant, I think; var. *macrocarpa* Hobkirk."—PEARSALL.

C. Bursa-pastoris Medic, var. [1947]. Merton parish, Surrey, v.-c. 17, June 5, 1918. In the form of the capsule this is related to var. *macrophylla* Mott, but is well marked by its uniformly pinnatipartite leaves and cannot be referred to that. It is evidently a member of a group of forms exemplified by my [1591] and [1965].—C. E. BRITTON.

C. Bursa-pastoris Medic, var. *macrophylla* Mott. [1963]. Hort. West Barnes, Merton, Surrey, v.-c. 17, 1918. In this set of plants some are quite typical of Mott's variety with the radical leaves entire or toothed; some of the larger plants however exhibit pinnatifid leaves.—C. E. BRITTON.

C. Bursa-pastoris Medic, var. [1994]. Hort. West Barnes, Merton, Surrey, v.-c. 17, July 3, 1918. Grown from seed of the *Capsella* contributed by Mr Robinson to the 1917 distribution. It is very interesting to observe that this form preserves all the distinguishing features of the parent plant, though grown in a very different soil, *i.e.*, London Clay, and in a season of drought. Members who possess Mr Robinson's plant may be glad to have this cultivated plant for comparison. Further study of this *Capsella* has convinced me that it possesses such distinct features of its own that it cannot be referred to Mott's *stenocarpa-lyrata*, though evidently related to that variety. If it has not already received a distinctive name, it is a form well worthy of recognition.—C. E. BRITTON. "Var. *stenocarpa-lyrata* Mott."—PEARSALL. See *Report* 210, 1917.

C. Bursa-pastoris Medic, var. *brachycarpa* Mott. [1914]. New Malden, Surrey, v.-c. 17, May 4, 1918. A well-marked early flowering form.—C. E. BRITTON. "Agrees with Mott's description and figure in *Fl. Leics.*"—SALMON. "Yes; with a few capsules having margins slightly concave."—PEARSALL.

C. Bursa-pastoris Medic, var. *stenocarpa-lyrata* Mott. Roadside, Stainton, Lancs. N., v.-c. 69b, September 7, 1918.—W. H. PEARSALL. "I agree. Unfortunately gathered too late to show the characteristic form of the root leaves."—BRITTON.

C. Bursa-pastoris Medic, var. *rubellaeformis*. [15]. Cultivated ground, Leicester, v.-c. 55, August 1918.—A. E. WADE. "If this is compared with the description of var. *rubellaeformis* Mott it will be seen it can scarcely be placed to that form, which it recalls only in the shape of the immature capsules. This certainly exhibits 'lateral margins concave, giving to the lobes a slightly recurved appearance,' but as the capsule becomes mature the lateral margins become more or less straight or even slightly convex. Except that the leaves are smaller, this plant approximates to var. *macrophylla* in the character of the root leaves, but I do not think it can be placed to any of Mott's varieties, as it really occupies a position between vars. *macrophylla* and *bifida*. It is worthy of cultivation and perhaps ultimate segregation."—BRITTON. "My plants are rather young, but I should prefer to call them small forms of *bifida*."—PEARSALL.

Bursa pastoris Weber, var. Furness Abbey, v.-c. 69b, October 24, 1918. This has dried much more like var. *stenocarpa-coronopifolia* than it appeared fresh. The notch was exceedingly deep. I see that Mr Britton considers the depth of notch a trivial character. Mott's figure of *stenocarpa* shows a deeper notch than any occurring in plants I have received from the Club. Incidentally I may mention that plants which could be labelled *gracilis* occur in small numbers

among *brachycarpa*, *bifida*, *stenocarpa* and *macrocarpa*. Surely Mr Britton is right in his opinion that they are not a separate variety. Var. *bifida* practically monopolises gardens here.—D. LUMB. " An interesting form, deserving of culture and careful study. It certainly is related to var. *stenocarpa-coronopifolia* rather than to any other of Mott's varieties and can without undue straining be so called, but it is closer related to the elementary species studied by Shull and called by him *B. Bursa-pastoris rhomboidea*. Note the rhomboid termination of the lateral segments of the leaves. Almquist has established 70 or 80 elementary species founded upon the variations of *Capsella Bursa-pastoris*, and it is evident that we shall not make much progress in the knowledge of the British forms until our plants are correlated with those described by the Swedish botanist." —BRITTON. " Var. *stenocarpa-coronopifolia* Mott."—PEARSALL.

B. pastoris Weber, var. Abbey Road, Barrow-in-Furness, v.-c. 69b, October 26, 1918. This is a roadside plant, and I fancy it is a slender form of *bifida* Mott, but I can't profess to know these varieties well.—D. LUMB. " The distinguishing feature of this form is the evanescent character of the rosette of radical leaves (if indeed a rosette is formed). It is related to var. *brachycarpa* of which it has the habit, but in shape the capsule is intermediate between that and var. *densifolia*."—BRITTON.

Lepidium latifolium L. Paradis, Guernsey, July 1915.—C. V. B. MARQUAND.

L. Draba L. On rubbish, St Philip's, Bristol, August 14, 1890. —J. W. WHITE. " This comes under my forma *viridescens*, the hairs being scattered and short so that the plant appears glabrescent." —DRUCE.

Thlaspi alpestre L., var. *occitanum* (Jord.). On lead mine refuse, Kirby, Malham Moor, Yorks. W., v.-c. 64, June 5, 1918.—W. G. TRAVIS. " Yes; but it should be spelled *occitanicum*. Babington is responsible for the misspelling."—DRUCE.

Rapistrum rugosum Berg. Near North Stoke, Sussex W., v.-c. 13, June 6 and 17, 1918.—R. J. BURDON. " This *R. rugosum* All., verging towards *Linnaeanum*, Prebendary Burdon showed me growing in immense quantity on a grassy hill slope quite naturalised."— DRUCE.

Raphanus maritimus Sm., subvar. *albida*. Shore at Portslade, Sussex W., v.-c. 13, September 23, 1918.—A. WEBSTER.

Viola Riviniana Reichb., forma. [373]. Wood, Dalton, Camb., v.-c. 29, April 27, 1918. The spur of var. *nemorosa*; flower colour

intermediate between *sylvestris* and *Riviniana*. I have never seen a plant with flowers quite this colour.—Coll. Miss WELLSMAN; comm. F. ROBINSON. " Vigorous var. *diversa*."—GREGORY.

V. canina L., var. *pusilla* Bab. Hayling Island in pure sand, Hants. S., v.-c. 11, June 1914. Cf. illustration *British Violets*, 78. Very floriferous; spur bright greenish yellow.—P. M. HALL. Also from Dawlish Warren, Devon S., v.-c. 3, April 20, 1914.—W. C. BARTON. " Yes."—GREGORY.

V. hirta × *odorata*. [1265]. Hedgebank above Wrington, Somerset N., v.-c. 6, March 20 and June 7, 1918.—IDA M. ROPER. " Near *V. hirta* × *odorata* (× *sepincola*). Stolons not typical. Miss Roper's specimens, taken at two stages of their life-history, are a pleasure to study. The colour of the flower is an interesting addition, but the paper or ribbon, owing to a tendency to fade, should be enclosed in a little paper pocket which can be gummed to the sheet."—GREGORY.

V. hirta L., var. [218]. Open ground near copse on chalk down, Ashmansworth, Hants N., v.-c. 12, April 25, 1916.—W. C. BARTON. " This plant compares well with *V. hirta* < × *odorata* (× *collina* = *V. collina* Besser) in its early stage. It would be interesting to see it in a later stage when the leaves would be more distinctive."—GREGORY.

V. variata Jord., var. *sulfurea* Drabble. [R. 2042]. Albury, Herts, v.-c. 20, June 1900. Seen by Dr Drabble.—G. C. DRUCE.

Dianthus deltoides L. [400]. Heath land, Beechamwell, Norfolk W., v.-c. 28, July 20, 1918. Continues flowering until October. —F. ROBINSON.

Saponaria officinalis L. On the banks of the Dart in a wild part of the Dartington estate, Devon S., v.-c. 3, August 14, 1918. Having the appearance of a true native.—C. V. B. MARQUAND.

Silene nutans L. Cliffs near Dover, Kent E., v.-c. 15, July 1918. Is this the *S. paradoxa* Sm. described in Bab. *Man.* ed. 9 as having " root-leaves roundly spathulate mucronate with long hafts " from Dover Cliffs?—C. C. VIGURS. " This has nothing in common with *S. paradoxa* L. which has a much more cylindrical calyx, longer carpophore, &c. Smith's *paradoxa* seems scarcely worth keeping up as a variety; it was found by Newton in Ray's time (*Hist.* ii., 995, 1688; *Syn.* 340, 1690), and seems to have been merely a taller state with somewhat broader leaves and the whole plant less viscid. Newton

(Ray *Syn.* ed. 2, 201, 1696) stated that his plant (from Dover) was different to that from Nottingham Castle, but Ray (*l.c.*) suspected them to be identical as is now generally admitted. Smith's views in 1824 (*Eng. Fl.* 297) are in accordance with those of Ray and he remarks: ' Miller mistook *S. paradoxa* for the Dover Catchfly and sent it as such to Linnaeus; but I cannot learn that this grows at Dover.' ''—SALMON.

Cucubalus baccifer L. [377]. Open wood, Merton, Norfolk W., v.-c. 28, August 16, 1918. This plant has a more extended area than I at first thought, and is very plentiful this year in this its only native station.—F. ROBINSON.

Cerastium arvense L., var. *latifolium* Fenzl. [386]. Hedge-banks and edge of cultivated land, Rocklands, Norfolk W., v.-c. 28, May 31, 1918. See *Report* 128, 1914. I send a few more specimens of this extraordinary plant which is still abundant.—F. ROBINSON. '' In addition to the large size and broad leaves the attenuated sepals are a marked feature. I should have inserted it as a variety in the *Camb. Brit. Fl.* had I then known of it.''—DRUCE.

C. arvense L. Railway Bank, Mildenhall, Suffolk W., v.-c. 26, June 9, 1916. Sent for comparison with those contributed by Mr Robinson and Mr Cumming. The largest plants grew to a height of 18 inches, not drawn up.—W. C. BARTON. '' Is var. *angustifolium* Fenzl. (= *typicum* Beck.).''—WHELDON. Also Hort. Kilsby, June 17, 1918; origin, stubble field on Edge Hill, Warwick, v.-c. 38. I suppose this is correctly named, but it is very different in habit from the plant with tufted rigid stems I have seen elsewhere.—L. CUMMING. '' The latter I call *arvense* L.''—DRUCE.

C. vulgatum L., var. [R. 7195]. Near Cabrach, Aberdeen N., v.-c. 93, August 1918. This glabrescent small-leaved form occurred plentifully on a serpentine hill near Cabrach, but in Aberdeenshire, where Mrs Wedgwood found it many years ago. It approaches *holosteoides* but its pubescence is not strictly confined to a line on the stem; moreover that is usually a large coarse plant growing under tidal influences. I am inclined to call this forma *lucens* of the type; it is not the var. *serpentini* Syme which has flowers as large as those of *Stellaria holostea*.—G. C. DRUCE. '' As this plant is more glabrous than usual and has its stem-hairs in some cases arranged in lines, it makes an approach towards *holosteoides* Fr. (which does occur in Aberdeenshire), but cannot be placed I believe under that.''—SALMON.

C. viscosum L., subvar. *elongatum* Rouy & Fouc. [347]. Roadside, Lodsworth, Sussex W., v.-c. 13, August 22, 1918. I under-

stand Mr Salmon is keeping this plant under observation. So far I have seen no petals. The present gathering shows the characteristic feature equally marked in young and old plants and in large and small (1 in. quite simple to 12 in. much branched).—W. C. BARTON. "These plants are not very robust nor very much branched; they are very near my *gracile* Camb. Brit. Fl. ined. I have the closely allied *elongatum* from Skye, Oxon, Bucks, &c."—DRUCE.

Stellaria glauca With. North Stoke, Sussex W., v.-c. 13, June 25, 1918.—R. J. BURDON.

Arenaria serpyllifolia L., var. ? Walls of the sea, Ballywater, Co. Down, May 1918.—C. H. WADDELL. "I think this small fairly common wall-top plant is a state of α. *scabra* Fenzl, which is I believe the most common segregate of *serpyllifolia* in Britain. One or two of Mr Waddell's smaller plants somewhat mimic *Lloydii*, but that has different shaped capsules, more compact heads, different sepals, &c." —SALMON. "Comparing material in *Herb. Brit. Mus.* I came independently to the same conclusion as Mr Salmon."—BARTON.

A. tenuifolia L. Amberley Mount, Sussex W., v.-c. 13, June 27, 1917. A scarce Sussex plant but probably overlooked on the Downs where it delights in the bare trodden paths and cart-ruts and is soon scorched and brown in the sun.—C. E. SALMON. "Yes; not given in *Top. Bot.* for Sussex W., but long ago found by Bree on Goodwood Park wall, and I saw it at Amberley many years ago."—DRUCE. "Yes; eglandular and nearly or quite glabrous."—RIDDELSDELL. Also [1954] Fallow field on the North Downs above Ashtead, Surrey, v.-c. 17, June 9, 1918.—C. E. BRITTON.

Sagina apetala Ard. Wall in shade, Mountstewart, Co. Down, September 18, 1918.—C. H. WADDELL. "*S. apetala*, var. *barbata* Fenzl, an eglandular state."—WHELDON. "An unusually glabrous form of *S. apetala* Ard., var. *imberbis* Fenzl. Cf. *Report* 561, 1916." PEARSALL. "I think this comes under *S. apetala*, var *imberbis*."—SALMON. "A common form of slender-sepalled *apetala*."—LUMB.

S. apetala Ard. Garden, Wigginton, Oxon, v.-c. 23, June 12, 1918. The notes in the 1917 *Report* indicate a considerable obscurity in this plant, or else a widespread misunderstanding of *Sagina* forms. On the whole I am inclined to put this to *S. apetala*.—H. J. RIDDELSDELL. "Small compact densely glandular plants, with broad, fairly uniform, obtuse and spreading sepals; *S. apetala* Ard., var. *barbata* Fenzl."—PEARSALL. "I agree with Mr Pearsall."—BARTON. "I think this is rather down-trodden *S. apetala*, var. *barbata*, but it scarcely looks prostrate enough for var. *prostrata*. The flowers are too large, peduncles too long, &c., for *S. Reuteri* of which it has somewhat the habit."—SALMON. "Is *apetala*."—LUMB.

Sagina ——? [355]. Stubble field, Kelsham Farm, near Petworth, Sussex W., v.-c. 13, September 2, 1918. With *Myosurus minimus*. I think this must go to *apetala* as the sepals, though rather long, are not sufficiently acute for *ciliata*. The spreading of the sepals in a Maltese cross is not I think a sufficiently constant character to determine the species.—W. C. BARTON. "Stem, pedicels and sepals more or less glandular. The sepals are all fairly long but sub-obtuse, not acute enough for *ciliata*. The habit and balance of evidence point to *S. apetala*, var. *barbata* Fenzl."—PEARSALL. "*S. apetala*, var. *barbata* Fenzl."—WHELDON. "This plant seems to agree satisfactorily with Boreau's description of Jordan's *S. filicaulis*, and with an example of Boreau's that I have examined. This specimen leads me to think that the latter's *S. filicaulis* (I have not seen Jordan's) holds a position midway between *apetala* and *ciliata*; for one thing, the sepals seemed certainly in some cases inclined to expand in ripe fruit. This is so in specimens I gathered with Mr Barton in the same station a few days earlier, but they are closely and uniformly appressed to the capsule in plants I should also name *filicaulis* gathered near Hydon Ball, Surrey, in August 1917. It is interesting to note that Corbière places *filicaulis* as a segregate of *ciliata*, whilst Lloyd distinctly states that it is 'une variation grêle' (perhaps in two senses of the word!) of *S. apetala*."—SALMON.

Sagina ——? North Gate, Chichester, Sussex W., v.-c. 13, October 6, 1918. The sepals are all obtuse and I suppose the plant comes under *S. apetala* Ard., as a weak form with glandular peduncles. The sepals appear in most cases to remain appressed to the capsule.—J. E. LITTLE. "Resembles *S. ciliata* in habit, but sepals too short, uniform and obtuse for that species. I attach no importance to the absence of spreading sepals and should call this weak *S. apetala*."—PEARSALL. "*S. apetala*."—RIDDELSDELL. "I should like to see more of this interesting strictly-erect plant. I believe it to be a form of *S. apetala*."—SALMON.

Sagina maritima Don. Hilbre Island, Cheshire, v.-c. 58, June 22, 1918.—W. G. TRAVIS. "Yes; what I consider to be the type."—WHELDON. "Rightly named, but very different to our [58] of last year."—PEARSALL. "Best left under type probably, but its lax straggling habit approaches var. *debilis* Jord."—SALMON.

Spergularia salina Presl, var. *neglecta* (Kindb.). [4116]. On gravel paths, Goodwood, Sussex W., v.-c. 13, July 1918. In pre-war times of course the paths were clean, but now the *Spergularia* covered them as with turf. Whether the seeds had originally blown here from the coast or been introduced with shingle is uncertain.—G. C.

DRUCE. "Answers to the description given by Syme (*E.B.* ed. iii.) of his *S. neglecta*, var. *a. genuina*."—SALMON. "Kindberg in the 1863 edition of his monograph describes *Lepigonum salinum* (Presl), and gives as synonyms *Spergularia salina* Presl, *Lepigonum neglectum* Kindb., *Lepigonum salinum* Fries, *Lepigonum medium* Garcke. He adds that Presl in describing *Spergularia salina* 'expressis verbis adnotat "semina tuberculata esse."' Syme evidently used the 1856 edition and overlooked the fact that Kindberg himself in 1863 admitted that his nova species (*i.e. Lepigonum neglectum*) of the 1856 ed. was identical with Presl's *S. salina*. Our books are therefore wrong in distinguishing var. *neglecta* (Kindb.) from type *salina* Presl. Nor can Hooker's (*Stud. Fl.*) '*Lepigonum neglectum* Kindb. glandular above' or Babington's (*Man.*) '*Lepigonum neglectum* (Kindb.) is glandular' stand, since Kindberg in 1863 ed. writes of *Lepigonum salinum* (Presl) = *L. neglectum* Kindb. 'caules humiles saepissime ramosissimi valde divaricati prostrati rarius simplices erecti compressi *glabrescentes vel superne glanduloso-pubescentes*.' Continental books make no such mistake."—BARTON.

Claytonia sibirica L. Nursery ground, Ledbury, Hereford, v.-c. 36, September 14, 1918.—S. H. BICKHAM. Also from waste ground. Bradford, v.-c. 64, in abundance, June 28, 1918.—J. CRYER.

Elatine hexandra DC. Not submerged as usual. Growing luxuriantly at the NW. border of Bomere Port, near Shrewsbury, Salop, v.-c. 40, August 1918.—J. C. MELVILL. "Not *Elatine*; the fruit shows this gathering to be *Montia fontana* L. (= *M. lamprosperma* Cham.)."—BARTON. "My specimens are *Montia fontana* L., var. *lamprosperma* Cham."—SALMON.

E. Hydropiper L. In small quantity in Llyn Coron, Anglesey, v.-c. 52, where it has not been recently observed. July 1918.—G. C. DRUCE.

Hypericum quadrangulum L. (*H. maculatum* Crantz, *H. dubium* Leers.), var. *punctatum* (Schinz). By the Teith, Callander, Perth W., v.-c. 87, August 1918. Dr Schinz puts this as var. *punctatum* of subsp. *erosum*.—G. C. DRUCE. "Yes; as is usually the case with this variety in my experience, the dots 'peter out' as the lower leaves are reached. I think Schinz's variety equals the var. *perfoliatum* Tourlet."—SALMON.

Linum perenne L. [408]. Hedgebank, Moulton, Cambridge. v.-c. 29, August 3, 1918. Flowers the size and colour of *perenne* or between that and *angustifolium*; apparently annual.—Coll. Miss WELLSMAN; comm. F. ROBINSON. "There were no petals on any of the series contributed; the leaves and sepals put it to *L. angusti-*

folium."—BARTON. "Not *perenne*, which has larger flowers and different leaf-arrangement, sepals and seeds. It is *L. angustifolium* surely."—SALMON.

Erodium cicutarium L'Hérit., var. Sand dunes, Hightown, Lancs. S., v.-c. 59, August 1, 1918. Flowers pale rose, unspotted. This has been referred to various segregates, but none of the proposed varieties or forms seem to fit it very accurately. It is near *E. pilosum* Jord., but I suppose the groove of the carpels is too marked for that.—J. A. WHELDON. "This does not appear to us *E. pilosum* Bor., but an interesting maritime form. We are preparing a paper upon these seaside plants of *Erodium*."—BAKER and SALMON.

E. cygnorum Nees. Waste ground, Bradford, v.-c. 64, June 28, 1918.—J. CRYER. "Yes."—BAKER.

Oxalis stricta L. [406]. Garden weed, Caston, Norfolk W., v.-c. 28, August 9, 1918.—F. ROBINSON. "Yes; we seem to have two forms of this in Britain, of which this is the less hairy plant."—DRUCE.

Impatiens glandulifera Royle. On the banks of the Dart in a wild part of the Dartington estate, Devon S., v.-c. 3, August 14, 1918. —C. V. B. MARQUAND. "Specimens spoilt by over-pressure and mildew. This species is frequent by riversides in Devon, so Mr Hiern informs me. It also exists in plenty by the river Ely, near Cardiff."—RIDDELSDELL.

Acer campestre L. Furness Abbey, Lancs N., v.-c. 69b, November 1, 1918. Leaves only. I have arranged these to show the varying depth of notch and width of lobe. The undergrowth was so dense that one could not see if there were any real bole or boles; the clump is probably three yards long.—D. LUMB.

A. campestre L., var. *leiocarpon* Wallr. [1979]. Near Lower Malden, Surrey, v.-c. 17, July 1, 1918. Wings of fruit crimson-purple, but this is not an essential feature of the variety.—C. E. BRITTON.

Lupinus nootkatensis Donn. [384]. Edge of lake, Scoulton Mere, Norfolk W., v.-c. 28, June 1, 1918. Long and well established; I have known it for 30 years.—F. ROBINSON. "Not *L. nootkatensis* of which the diagnosis in *Bot. Mag.* 32, t. 1311 is: 'calycibus verticillatis inappendiculatis, labio inferiore integro, caule foliisque hirsutis, radice perenni.' The flowers in these specimens are not verticillate. I could find no description or plate in the British Museum Library exactly corresponding, but it comes near to *L. perennis* in

which the leaflets are 8-9, the flowers at first rose then lilac-blue, peduncled, alternate, with bract at base, 15 or more in a simple terminal cluster (grappe). It is of course planted or a garden escape and may be of hybrid origin."—BARTON. "*L. polyphyllus.*"—A. THELLUNG.

Medicago Falcata L. Sandhills, Blundellsands, Lancs. S., v.-c. 59, September 14, 1918.—W. G. TRAVIS. "Yes; alien here."—DRUCE.

M. minima Desr. Waste ground, Bradford, v.-c. 64, September 10, 1917.—J. CRYER. "Yes; belonging to var. *recta* Burnat, I think."—DRUCE.

M. laciniata Mill. Waste ground, Bradford, v.-c. 64, July 4, 1918. In great abundance.—J. CRYER. "Yes."—DRUCE and THELLUNG.

Medicago ——? Waste ground, Bradford, v.-c. 64, July 29, 1918. All the branches of this beautiful *Medicago* were prostrate and the leaflets quite horizontal.—J. CRYER. "*Medicago praecox* DC."—THELLUNG.

Trifolium suffocatum L. On a small patch of waste ground, Vale, Guernsey, August 1913.—C. V. B. MARQUAND.

Anthyllis Vulneraria L., var. *Allionii* DC. Plentiful on a roadside waste and border of a wood to the south of Alkham near Dover, Kent E., v.-c. 15, July 12, 1918.—C. C. VIGURS. "These closely resemble the plants sent from Stouting, Kent, to the Club (see *Report* 170, 1887) when Dr Lange referred them to *hirsutissima* DC., but as that has red and the Kent plant yellow flowers Beeby referred it to *Allionii*, and on that authority I included it *Br Pl. List.*"—DRUCE. "This is not such good *Allionii* as I have gathered in Kent near Wye (*Watson B.E.C. Report* 11, 1900-1), where the spreading hairs could be seen on the stems practically up to the heads of flowers which themselves were much more hairy. Dr Vigurs' plant however does agree well with Corbière's description of his var. *villosa* (Addit. Fl. Norm. 88, 1895) which I take to be very closely allied to, if indeed separable from, var. *Allionii.*"—SALMON. "Mr Salmon's suggestion may very probably be right as Corbière's plant was found on the chalk hills of Normandy. His diagnosis is (*Bull. de la Soc. Linn. de Normandie*, 4e sér., 9e vol., 2e fasc., p. 88): '*Anthyllis vulgaris* var. *villosa* Corb.—Je désigne sous ce nom une forme de l'*A. vulgaris* qui offre des tiges couvertes, au moins dans le bas, de longs poils étalés, exactment comme dans la var. *sericea* de l'*A. maritima*. E. coteaux calcaires des environs de Louviers (Tetrel !).' This fits Dr

Vigurs' plants well. They are certainly not so hairy as the plants gathered in the neighbourhood of Wye, Kent, by Mr Beeby (1887) and Mr Salmon (1900), but the difference is only one of degree. Examples of var. *Allionii* DC. in *Herb Brit. Mus.* and at Kew correspond with the figure in All. *Fl. Pedem.* 1278, t. 19, f. 2; they are small plants of about 4 inches in height, extremely hairy throughout, with the pod sessile or shortly stalked, (in *A. Vulneraria* type the pod is raised on a stalk about as long as itself); and as might be expected from the distribution (Mont Cenis, Savoie and Hautes Pyrénées) are quite distinct from our plant. Rouy & Foucaud (*Fl. Fr.*) treat *A. vulnerarioides* Bonj. (= var. *Allionii* DC.) as ' une forme ' of equal status with *A. vulgaris* (= *A. Vulneraria* type). The Kent plant seems to me a variety or subvariety close to type for which the name *villosa* Corbière may stand if Corbière's specimens be found to agree. And under that these examples of Dr Vigurs are not extreme. The name *Allionii* should disappear from our lists."—BARTON. " On the leaves of one of Dr Vigurs' specimens is the uredospore form of *Uromyces Anthyllides*, a by no means common species of Uredine in this country."—MARQUAND.

Astragalus danicus Retz. [396]. Dry heath, N. Pickenham, Norfolk W., v.-c. 28, July 11, 1918.—F. ROBINSON.

Coronilla varia L. Yiewsley, Middlesex, v.-c. 21, September 9, 1918.—A. WEBSTER.

Vicia tenuifolia Roth. Hedge near Old Park Farm, Bosham, Sussex W., v.-c. 13, June 1, 1918.—R. J. BURDON.

V. angustifolia L. [382]. Dry heath, Croxton, Norfolk, v.-c. 29, May 16, 1918. The shape of the leaf is very different to the usual form in this neighbourhood, but I believe this is a very variable character.—F. ROBNISON. " I hope Mr Robinson will gather this pretty little pale-flowered Vetch again with ripe pods, as it looks most interesting."—SALMON.

Prunus insititia L. Great Wymondley, Herts, v.-c. 20, April 7 and June 22, 1918. I distributed this to the Watson Club in 1917. For remarks see *Report* p. 56. The large fruit (there was none this year) brings it near to *P. domestica* L., although from other characters it seems better to place it under *insititia*.—J. E. LITTLE. " A large leaved plant near *domestica*. I should like to see the fruit, but suspect it is *insititia* × *domestica*; the leaves are too rugose for true *insititia*, although in shape and size they are near its var. *latifolia* (Jord. & Fourr.)."—DRUCE. " Yes, I should say rightly named."—SALMON. " I received this plant last year from the other Club with fruit, as Mr Little noted, ' egg-shaped, averaging 27 mm. × 18 mm.,

purple, with a bloom on the cuticle,' and I very much doubt the ascription of it to *insititia*. Apart from the fruit its characters indicate *insititia*, but I believe the fruit is decisive evidence of a strain of *domestica*."—BARTON.

Rubus fissus Lindl. Bagley Woods, Berks, v.-c. 22, June 1918.—G. C. DRUCE. "Yes."—RIDDELSDELL.

R. sulcatus Vest. Walton in Gordano, Somerset N., v.-c. 6, August 13, 1918.—IDA M. ROPER. "Right. Some of the sheets are mildewed. In one case the stem piece is insufficient (term. lft. badly damaged). Otherwise beautiful specimens."—RIDDELSDELL.

R. dumnoniensis Bab. Quarry on Barton Common, Hants S., v.-c. 11, August 15, 1918. The locality is the same I sent specimens from last year. Seen by Mr Rogers.—L. CUMMING.

R. thyrsoideus Wimm. Passage to Kilsby Church, Northants, v.-c. 32, August 4, 1918. Also Lane from Burby to Lilburne, v.-c. 32, June 24, 1918.—L. CUMMING. "Right."—RIDDELSDELL. Also from Hook Norton, Oxon, v.-c. 23, August 13, 1918. Common in this part of Oxfordshire. The gathering has not been seen by Mr Rogers. It is sent at the request of Mr J. W. White.—H. J. RIDDELSDELL.

Rubus ——? Lane between Hordle and Barton Common, Hants S., v.-c. 11, August 15, 1918.—L. CUMMING. "I first suggested *mucronatus* for this gathering; but Mr Rogers wished to cf. *Questierii*. It is rash, I always feel, to differ from Mr Rogers, but the leaflets seem quite to exclude *Questierii*. Further examination convinces me that the present plant is a weak state of *R. mucronatus*, var. *nudicaulis* Rogers."—RIDDELSDELL.

R. Drejeri G. Jensen, subsp. *Leyanus* Rogers. Barton Common, Hants S., v.-c. 11, August 16, 1918. Several acres of the common were covered with this form last year, but during the winter it had been burnt to the ground. The panicles are very poor, being produced close to the ground by the shoots which had escaped the fire. Seen by Mr Rogers.—L. CUMMING.

R. radula Weihe. Hook Norton, Oxon, v.-c. 23, July 13, 1918. Not seen by Mr Rogers.—H. J. RIDDELSDELL.

R. ——? *oigoclados* Muell. & Lefv. Lane, Shipham on Mendip, Somerset N., v.-c. 6, June 29 and August 21, 1918.—IDA M. ROPER. "Mr Rogers suggests *R. mucronatus* and I quite agree."—RIDDELSDELL.

R. Bloxamianus Coleman. Barnwell Wood, Northants, v.-c. 32, August 2, 1918.—L. CUMMING. "Named by Mr Rogers, I believe. and so beyond my criticism."—RIDDELSDELL.

R. dasyphyllus Rogers. Bank above Glen Frome, Frenchay, Gloster W., v.-c. 34, June and July 1918.—J. W. WHITE. "I agree."—RIDDELSDELL.

R. dumetorum Wh. & N. × *rusticanus* Merc. Wigginton Heath, Oxon, v.-c. 23, July 14, 1918. I believe this is right, but the specimens are poor. Not seen by Mr Rogers.—H. J. RIDDELSDELL.

R. Balfourianus Blox. Swerford, Oxon, v.-c. 23, June 6 and August 19, 1918. A small form with pink petals dotted with darker red. Known in this neighbourhood for many years. Not seen by Mr Rogers.—H. J. RIDDELSDELL.

Potentilla Sibbaldi Hall. fil. Origin near High Cup Nick; cult. hort. Shipley, June 21, 1918.—J. CRYER. "It is pleasing to see an English specimen. Its occurrence near High Cup Nick supports the correctness of the record of *Cerastium Cerastoides* from that area; it should be sought for on Cross Fell."—DRUCE.

Alchemilla pratensis Schmidt. Heathy hillside at 1500 ft. near Buxton, v.-c. 57, August 18, 1918.—J. W. WHITE. "Yes."—DRUCE and SALMON. "Yes; several pedicels with scanty patent hairs."—PEARSALL.

Agrimonia odorata Mill. Banks by Strangford Lough, SE. of Newtonnards, Co. Down, August 2, 1918.—C. H. WADDELL. "Undoubtedly *odorata*."—SALMON. Also, fruits only, near Old Park Wood, Fishbourne, Sussex W., v.-c. 13, October 8, 1918.—R. J. BURDON and J. E. LITTLE. "Growing in great abundance with *A. Eupatoria* but remaining very distinct both in its taller and more branching habit and in the fruit characters. The racemes were not, as Hooker characterises them, denser than in *A. Eupatoria*, but quite as lax at fruiting time and much longer. Since *A. Eupatoria* is slightly aromatic, that character fails as a distinction between the two."—J. E. LITTLE. "Fruits unmistakable."—SALMON. "Mr Salmon tells me this is a new record for that part of Sussex."—BARTON.

Rosa micrantha, var. *permixta* (Déségl.). Cadbury Camp. Tickenham, Somerset N., v.-c. 6, June 25 and September 24, 1918. Styles glabrous.—IDA M. ROPER. "The barer leaflets with hairs mostly confined to the midribs and ovoid fruit may justify the varietal name, but at best the variety is so close to the type as to be hardly

deserving of separation. Authors differ in their interpretation of it. The fruit does not appear to have fully developed."—BARCLAY. "At least equally near type *micrantha* Sm., if indeed the two are really separable."—WOLLEY-DOD.

R. eglanteria L., var. [R. 7611]. The Glen, Peebles, v.-c. 78, September 1918.—G. C. DRUCE. "I should call it var. *comosa* (Rip.)." —BARCLAY. "Agrees very well with *R. comosa* (Rip.), our commonest *eglanteria* segregate."—WOOLLEY-DOD.

R. eglanteria Huds., var. *comosa* (Rip.). Grey Abbey, Co. Down, September 3, 1918. A common rose and native in the district. The fruits have a few acicles. It seems nearest to *comosa* but does not quite correspond.—C. H. WADDELL. "Correctly named."—BARCLAY. "Correctly named though the glabrous styles seem to point to a *micrantha* form. Mr Waddell however informs me that the habit is quite that of *eglanteria* and that *micrantha* is not known for that part of Ireland. I do not remember seeing a glabrous-styled *eglanteria* before."—WOLLEY-DOD.

Rosa ——? [R. 7139]. Noke, Oxon, v.-c. 23, August 1918.—G. C. DRUCE. "So far as I can judge from the very poor specimen it is a variation of *R. tomentosa* Sm. of the *scabriuscula* group; not identical, like many others, with any of the named varieties."—BARCLAY. "I think this is the Rose Mr Druce recently submitted to me for a name, but the sheet now sent is not a very good one. It is best placed under *R. scabriuscula* Sm."—WOLLEY-DOD.

R. tomentosa Sm. of group *omissa* Déségl. [42/18]. Near Auchterarder Railway Station, Mid Perth, v.-c. 88, September 5, 1918.—W. BARCLAY. See *Watson B.E.C. Report* 183, 1908-9 (No. 16). "A striking looking plant having the mixed characters of *R. suberecta* Ley and of *R. tomentosa*, var. *Woodsiana* Groves, though it does not satisfactorily fit either. I have already stated in *British Roses*, p. 8, that I think var. *Woodsiana* best placed under *R. suberecta*, and Mr Barclay's plant must belong to that association. Like the majority of Roses it seems impossible to give a precise name without qualification."—WOLLEY-DOD.

R. involuta Sm., var. (= *R. tomentosa* Sm. of group *omissa* Déségl.) × *spinosissima* L. Near Auchterarder Railway Station, v.-c. 88, September 5, 1918. The enclosed curious form, a hybrid of the *involuta* group, was formerly sent to the Watson Club, but I think there must be many members of the B.E.C. who will be glad to receive a specimen. The other *omissa* form grows close beside it and is in my opinion one of the parents, as there is in many points a strong likeness between them. The hybrid leans much more to the

omissa than to the *spinosissima* side.—W. BARCLAY. See *Watson B.E.C. Report*, 141, 1907-8. "Undoubtedly the result of hybridisation of Mr Barclay's [42/18] with a *spinosissima* form. The likeness is striking but as the collector points out, the *spinosissima* influence is almost suppressed except in the armature which extends even to the fruit, as often occurs in such hybrids."—WOLLEY-DOD.

R. omissa Déségl., var. *resinosoides* Crép. The Glen, Peebles, v.-c. 78, September 1918. Rare; I first gathered this in Britain in Perthshire.—G. C. DRUCE. "Doubtless a variation of the group *omissa* Déségl. I hardly think it can be called var. *resinosoides* Crép., which however does not appear to be more than a slight variety."—BARCLAY. "I think correct. It agrees very well with the description."—WOLLEY-DOD.

Pyrus hybrida Ehrh. [R. 4117]. Goodwood Park, Sussex W., v.-c. 13, July 1918. *P. hybrida* (L.) Smith. *Aria hybrida* Beck. *P. fennica* Syme. Planted; not mentioned in "*Trees of Goodwood.*" —G. C. DRUCE.

Crataegus monogyna × *oxyacanthoides*. [R. 1871]. Noke, Oxon, v.-c. 23, July 1918. With both parents, fruit often sterile; on the whole nearer the latter parent.—G. C. DRUCE.

Saxifraga hypnoides L., var. *robusta* mihi. [4033]. Hort. West Monkton, May 16, 1918. Last spring having been cold and dry, these specimens are smaller than usual, and more like wild ones. Sent to Mr Hunnybun from W. Ireland, probably Black Head, Co. Clare; grown in my garden for some years.—E. S. MARSHALL.

S. stellaris L. Cader Idris, 2000 ft., Merioneth, v.-c. 48, July 24, 1915.—W. C. BARTON. Also from Darn Gill, Cumberland, v.-c. 70, July 23, 1914.—P. M. HALL.

Callitriche palustris L. (= *vernalis* Koch). [387]. Ditch. roadside, Rocklands, Norfolk, W., v.-c. 28, June 14, 1918.—F. ROBINSON. "The material was unsatisfactory, and led to conflict of opinion. Perhaps Mr Robinson will be able to send another gathering to the Club for careful examination as a whole."—BARTON.

C. intermedia Hoffm. (= *hamulata* Kuetz). [401]. The Punch Bowl, Fretham, Norfolk W., v.-c. 28, July 20, 1918.—F. ROBINSON. "Correct."—BENNETT and SALMON. "Comes under var. *angustifolia* Hoppe."—DRUCE.

Epilobium obscurum Schreb. × ?. Waste ground at Meole Brace, two miles south of Shrewsbury, Salop, v.-c. 40, September 1918, in a locality which has produced several interesting species and

forms of this genus.—J. C. MELVILL. "*E. obscurum* Schreb. I see no trace of any other species in these plants."—MARSHALL.

Epilobium ——? [402]. Damp part of heath land, Barnham Common, Norfolk W., v.-c. 28, August 1, 1918.—F. ROBINSON. "*E. obscurum* Schreb."—MARSHALL.

E. lanceolatum S. & M. [1623]. North Wood, Cuxton, Kent W., v.-c. 16, June 25, 1916. All specimens have been seen by Mr Marshall, who confirms the name.—C. E. BRITTON.

Helosciadium repens Koch. Port Meadow, Oxford, v.-c. 23, July 25, 1918. Growing in a ditch containing 8 inches of water and in the overflow by the ditch, and showing the effect of the surroundings in lengthened stem and lengthened leaves with shallower lobes. The plant covers a very large area of the meadow.—H. J. RIDDELSDELL. See *Report* 570, 1916.

Chaerophyllum aureum L. Callander, Perth W., v.-c. 87, August 1918. Abundant by the Teith. I think the narrow-leaved form of *Anthriscus sylvestris* (var. *angustisecta*) may have helped to cause this plant to be so long overlooked at Callander.—G. C. DRUCE.

Anthriscus sylvestris Hoffm., var. *latisecta* Druce. Fruiting specimens. Burpham, Sussex W., v.-c. 13, July 1918. Common at Burpham as elsewhere in South and Central England.—G. C. DRUCE. "No leaves, only fruit was sent."—BARTON.

Oenanthe pimpinelloides L. Old Park Farm, Bosham, Sussex W., v.-c. 13, July 18, 1918.—R. J. BURDON.

Aethusa Cynapium L., var. *agrestis* Wallr. [350]. Stubble field, Kelsham Farm, near Petworth, Sussex W., v.-c. 13, September 17, 1918. Mr Druce confirms the name. Has this been tested by cultivation? It seems at least possible that it is a late autumn form due to conditions. Perhaps some member would grow it from seed.—W. C. BARTON.

Galium palustre L., var. [R. 4217]. In pasture, Goodwood Park, v.-c. 13, July 1918.—G. C. DRUCE. "Why var.? Is not this *palustre*?"—SALMON.

G. sylvestre Poll. Foot of Downs, Reigate, Surrey, v.-c. 17, May 28, 1917.—C. E. SALMON. "The older name for the aggregate species is *G. pumilum* Murray."—DRUCE.

Asperula taurina L. Origin Selkirk; cult. hort. Oxford, July 1918. Sent to show the bright dark-orange-coloured underground

rooting stem, a colour I am afraid which disappears in drying.—G. C. DRUCE.

Solidago lanceolata L. Roadside near Perranporth, Cornwall, W., v.-c. 1, August 6, 1918. Plants from a well-established colony which I have watched for twelve years past. For an undoubted alien its occurrence here amongst native grasses by a country road far from houses, gardens and rubbish heaps, is somewhat unexpected.—F. RILSTONE. "Yes; an alien of N. American origin."—DRUCE.

Filago apiculata G. E. Smith. Maulden, Beds., v.-c. 30, August 12, 1918. On a patch of loose sand (greensand), sometimes cultivated, but derelict this year. The few localities for which it has been recorded for Beds. all lie along the greensand.—J. E. LITTLE. "Yes, good specimens."—RIDDELSDELL.

Antennaria dioica Gaertn. Rocks at Craigga More, Galway W., August 13, 1913.—W. C. BARTON. Also from rocks about Wynch Bridge, Teesdale, July 1914.—P. M. HALL.

Gnaphalium luteo-album L. [375] Sandy lane, Thompson, Norfolk W., v.-c. 28, August 1917. Still abundant in this station.—F. ROBINSON.

G. uliginosum L., var. *pilulare* (Wahl.). [352]. Roadside near Bosham, Sussex W., v.-c. 13, September 16, 1918. Seen also at Pagham, Lodsworth, Petworth and Midhurst.—W. C. BARTON. "Yes, it seems identical to the plant from Castlemorton Common (S. H. Bickham), confirmed by Mr Druce."—SALMON. "Wahlenberg, *Fl. Lapp.* 205, t. 13, describes *Gnaphalium pilulare* as 'species foliis involucralibus lanceolatis glabratis, seminibus hispidulis, caule modo et tantummodo ad radicem foliis minoribus paucis praedito, glabriusculo, vix ultra sesquipollicari; foliis fere omnibus usque majoribus sub capitulo florum positis, lanceolatis, fere glabris.' Authentic specimens in *Herb. Brit. Mus.* and in *Herb. Gay* at Kew answer to this description, except that the leaves are not truly glabrous but the lower have a few long white hairs and others are more thickly clothed with them, though not so woolly as in our plants. Later authors mention only the muricate achenes when distinguishing var. *pilulare*, though they equate their var. with Wahlenberg's plant. And to judge by material at Kew continental botanists like our own apply the name *pilulare* to plants differing from *G. uliginosum* type only in the achenes."—BARTON.

Ambrosia artemisifolia L. Sandhills at Blundellsands, Lancs S., v.-c. 59, September 14, 1918.—W. G. TRAVIS. "Yes, the male plant."—DRUCE.

Bidens tripartita L., var. *integra* Koch. Gravelly shores of Urswick Tarn, Lancs. N., v.-c. 69b, September 7, 1918.—W. H. PEARSALL. "I presume so. This species in nature seems unwilling to conform to the limits laid down by Hooker (*Stud. Fl.*) and Williams (*Prodr.*) respecting the number of pappus bristles; these authors say two, whereas one finds almost as frequently three."—SALMON.

Achillea Ptarmica L., var. with finely serrated leaves. [404]. Heathland in gorse, Scaning, Norfolk E., v.-c. 27, August 5, 1918.—F. ROBINSON. "Leaves subglabrous only, finely serrated, therefore not *angustissima* Heinm., which has very narrow glabrous leaves."—DRUCE. "The fine serrations are certainly closer together (and thus more minute) than in the normal plant. However I find in my herbarium a certain variability as to this character."—SALMON. "Not distinguishable from type I think; in one of my gatherings from Wales are included plants which vary from serrations as fine as in Mr Robinson's plants to normal. Material in *Herb Brit. Mus.* bears out Mr Salmon's remarks, and continental plants at Kew put under type have serrations several times larger than in our normal plants."—BARTON.

Petasites ovatus Hill, pistillate form. Common about the streams, Hook Norton, Wigginton, &c., Oxon, v.-c. 23, though not of frequent occurrence in England, I believe. This gathering was from a very wet copse, Wigginton, April 23, 1918. The mature leaves here are very much smaller than usual; the normal plant, in exactly similar situations of shade and moisture, in S. Wales and other parts, has enormous leaves.—H. J. RIDDELSDELL. "Yes, it was found for the first time in the vicinity near Banbury, probably by Bobart. See Dillenius *Hort. Eltham.* 309, 1732, where it is figured."—DRUCE. On distribution of male and female plant see a note in *Journ. Bot.* 251, 1884.

Senecio squalidus L. St Blazey Station, Cornwall E., v.-c. 2, May 10, 1918.—F. RILSTONE. "Yes, the type."—DRUCE.

S. vulgaris L., var. *radiatus* Koch. Rocquaine Bay, Guernsey, August 1913.—C. V. B. MARQUAND. "*S. vulgaris* L., var. *lanuginosus* (Trow)."—DRUCE.

Centaurea nigra L., forma. Billingshurst, Sussex W., v.-c. 13, August 1918.—A. WEBSTER. "This is very similar to a Knapweed found growing in Surrey, and like that is marked by distinctive features which prevent it being referred to *C. nigra*. It has all the essential features of *C. microptilon* Grenier, to which I do not hesitate to refer it. Whether this name has already been suggested for any of our British Knapweeds is unknown to me, but that this form occurs

in England I have no doubt. *C. microptilon* has been described in detail by Grenier & Godron and by Boreau, and when the characters assigned to it are analysed and those common to others rejected it is seen to be distinguished chiefly by its medium-sized ovoid heads with narrow lanceolate acuminate appendages exposing the underlying phyllaries and with the appendages more or less erect but distinctly curved outwards in their upper parts, this feature being most apparent on the well formed but unopened heads. Normally *C. microptilon* is rayless and the fruits have no pappus. Mr Webster's plant is marked by rather broader upper leaves than is the case with authentic French examples which have linear upper leaves, and another point in which it differs from named examples of this form is that some fruits are provided with a number of short (about $\frac{1}{2}$ mm.) stiff bristles representing a pappus, whilst other fruits are quite glabrous at the summit. But in spite of these divergences, taking the sum of all its characters, this plant is *C. microptilon* Gren. I find that in authentic herbarium specimens of *C. microptilon* the comparative width of the disks of the appendages and the length of its teeth do not always accord with the authors' descriptions, and Mr Webster's plant supplies a similar instance. *C. microptilon* also occurs in Surrey (Lower Morden, &c.), Berkshire (East Hindred, J. Ball, 1842), and I have seen specimens in herbaria also to be referred to this. The Lower Morden plant is indistinguishable from French examples. In drying specimens the pressure should be so regulated that the recurved feature of the appendages is well displayed."—BRITTON.

Hieracium Peleterianum Mér. South Cliffs, Guernsey, September 1913.—C. V. B. MARQUAND. " I believe this is identical with my plant from Grandes Rocques on the west coast of Guernsey, August 15, 1912, sent to the Watson Club as *Hieracium Pilosella* L., var. *concinnatum* F. J. H. Mr Linton agreed, but Mr Marshall preferred to leave it under type as a dwarf state, pointing out that ' the heads are not quite epilose, too densely glandular and not cano-floccose enough.' See *Watson B.E.C. Report*, 1912-3."—BARTON. " This is the same form of *H. Pilosella* as Mr Barton's from Grandes Rocques, 1912."—MARSHALL. " *H. Pilosella*, var. *concinnatum* F. J. H., I believe."—CRYER.

H. praealtum Vill. Railway bank, Hungerford, Berks, v.-c. 22, September 1918 Coll. C. P. Hurst; comm. G. C. Druce. Discovered in some quantity by Mr Hurst in 1918. The same plant occurs abundantly on the railway bank near Castlethorpe, Bucks., where I have known it for many years. Its persistence and abundance earn for it a place in our Floras.—G. C. DRUCE. " Yes."—CRYER. " Matches some of the many forms under this name in *Herb. Brit. Mus.*"—BARTON.

H. Marshalli Linton. Winter Corrie, &c., Forfar, v.-c. 90, and Ben Laoigh, Mid Perth, v.-c. 88, August 1916.—G. C. DRUCE.

H. pellucidum Laest. Cranham Woods, Birdlip, Gloster E., v.-c. 33, June 20, 1918.—IDA M. ROPER. "This appears to be a shade form of the plant so named by Elfstrand and issued as No. 37 of the Linton's set. It probably comes under *H. pellucidum*, but the type is now identified with var. *lucidulum* Ley."—MARSHALL. "No; I know *H. pellucidum* (= Ley's *lucidulum*) well in S. Wales. This is a *serratifrons* form; it will not do for *cinderella* Ley which has a cuneate-based head, but must come under var. *lepistoides* Johans. which in other respects it fits well. I know the plant already from Cranham Woods."—RIDDELSDELL. "Not *pellucidum* which has smaller, much darker heads, shorter peduncles with short, more uniform dark styles, black glands, ciliate ligules and very white pappus. These have greyish green heads, longer peduncles, ligules glabrous in my specimen, brownish white pappus and yellow styles. I name it *H. grandidens* Dahlst. In *H. lepistoides* Johans. the heads are black in dried specimens (blackish green in fresh) with short and longer stout black glands with strong bases, peduncles are stouter and darker with similar black glands, and the phyllaries are less floccose on the margins. The glands on peduncles and phyllaries are weaker and much less dark in Miss Roper's specimens."—CRYER. Later: "My specimen is certainly more like the description of *lepistoides*; but *grandidens* grows in Cranham Wood too; I have specimens from there. I suspect a mixture."—RIDDELSDELL.

H. acroleucum Stenstr., var. *daedalolepium* (Dahlst.). [164]. Crevices of rocks at 400 ft., Arthog, Merioneth, v.-c. 48, June 14. 1915. Named by Mr Linton and agreed to by Mr Marshall.—W. C. BARTON.

H. umbellatum L., var. Cliffs by the sea about Ilfracombe, Devon N., v.-c. 4, August 1918. A form with broad and very fleshy leaves; perhaps hardly worth a name.—H. J. RIDDELSDELL. "Var. *monticola* I should say, modified by the situation."—MARSHALL. "Specimen poor, diseased, probably with eel worm, badly developed and therefore untypical leaves and inflorescence."—CRYER.

Taraxacum ——? [R. 7116]. Chertsey, Surrey, v.-c. 17, June 1918.—G. C. DRUCE and Lady DAVY. "I should like to see this in ripe fruit. The exterior phyllaries seem too broad for any *officinale* form, and the whole plant has the look of *udum*. Both this and *palustre* are remarkably scarce in the county."—SALMON.

E. ciliaris L. Leaves 3-4 in whorl. Chynhale, near Perranzabuloe (wrongly Perranarworthal on labels), Cornwall W., v.-c. 1,

August 25, 1911. Syme (*E.B.* ed. iii.) and Bab. (*Man.*) state that both *Tetralix* and *ciliaris* have leaves 4 in a whorl, while *cinerea* has leaves 3 in a whorl. This distinction does not hold good at least in this locality where plants of *ciliaris* with leaves 3 in a whorl were quite frequent.—W. C. BARTON.

E. ciliaris × *Tetralix* (*E. Watsoni* Benth.). Plentiful in the same locality as the above.—W. C. BARTON. Also from the Dorset station.—A. B. JACKSON.

Pyrola rotundifolia L. Grande Mare, Guernsey, August 16, 1912. This is the plant discussed by Mr Bennett in *Journal of Botany* 332-4, 1893. I sent specimens to the Watson Club in 1912 and Mr Marshall wrote in the *Report*: "the plant received differs from all those in my herbarium by its smaller orbicular foliage and more numerous flowers (12, besides what looks like a rudimentary one at the apex); the fruit is also appreciably smaller. . . . There is still one blossom with the petals unshed though it was collected on August 16, by which time typical *rotundifolia* would be long over in the south of England."—W. C. BARTON.

P. minor L. East Force Garth, above High Force, Teesdale, Durham, v.-c. 66, July 2, 1914. In a damp open meadow with *Orchis maculata* and *Habenaria albida*.—P. M. HALL. Also from Tongue, Sutherland W., v.-c. 108, July 25, 1916. Coll. J. W. MCDOUGALL; comm. W. C. BARTON.

Monotropa Hypopitys L., var. *glabra* Roth. Damp sand dune hollows, Hightown, Lancs. S., v.-c. 59, July 31, 1918. This is the usual form in which the peduncles are approximately as long as the bracts.—W. G. TRAVIS. "Yes; *Hypopitys Monotropa* Crantz, var. *glabra* (Roth)."—DRUCE. "Yes, the common form in Britain. The hairy plant seems quite rare with us."—SALMON.

Primula ——? Meadow near Pullborough, Sussex W., v.-c. 13, May 6, 1918. In great abundance in one place growing with *P. acaulis* and *P. veris*. In every shade from dark brown to orange.—A. WEBSTER. "Good evidence of *P. veris* in this; the other parent surely a garden *polyanthus*."—BARTON. "There is a coloured hybrid between *P. vulgaris* and *P. officinalis* not infrequently grown under the name of *P. variabilis* and this plant appears to be identical with it."—F. J. CHITTENDEN. "Under Mr Webster's guidance I saw the habitat of this plant in May 1919 through the kindness of our member, Dr Harley. There are many thousands of the plant growing there, affording a beautiful sight. On one umbel was one flower like a cowslip, others of the hybrid, while one or two were primrose-like. The origin may be accounted for by Dr Harley

scattering cowslip seeds supplied by a seedsman many years ago in the field, but that a pure strain of *P. veris* was not supplied; from the abundance of specimens it is evident that the cross is fertile."—DRUCE.

Anagallis arvensis L., var. *carnea* Schrank. Guernsey, August 1913.—C. V. B. MARQUAND.

Microcala filiformis Hoffm. & Link. Lancresse Common, Guernsey, August 1913.—C. V. B. MARQUAND.

Erythraea Centaurium Pers., var. *capitatum* Koch. Sandy banks by the sea, Hilbre Island, Cheshire, v.-c. 58, June 22, 1918.—W. G. TRAVIS. "Yes; *Centaurium umbellatum* Gil., var. *capitatum* (Koch). A fine form with broad and large stem leaves."—DRUCE. "I take this to be var. *capitata* Koch."—SALMON.

Centaurium pulchellum Druce. Cobo, Guernsey, September 1913.—C. V. B. MARQUAND. "The same plant and from the same spot as my [242], which was dealt with in *Rep. B.E.C.* 578, 1916. Mr Salmon considers it comes under f. *contracta* Wittr."—BARTON.

Cicendia pusilla Griseb. Damp ground, Paradis, Guernsey, July 25, 1912. The plant was plentiful in two localities in 1912; two years later I could find only a limited number and those much smaller. Doubtless it varies according to the season.—W. C. BARTON.

Gentiana Pneumonanthe L. Golf Links, Woodhall Spa, Lincs., v.-c. 54, August 6, 1918. Coll. M. J. HILL; comm. J. E. LITTLE.

G. Amarella L. Sandy coast, Rosses Point, near Sligo, August 18, 1913. Doubtless a state due to exposure.—W. C. BARTON.

G. Amarella × *germanica* (× *Pamplinii* Druce). Ashmansworth, Hants. N., v.-c. 12, September 15, 1915. With parents.—W. C. BARTON. See *Report* 1915.

Symphytum officinale L., var. *purpureum* Pers. = *S. patens* Sibth. Ditch bank, near Flax Bourton, Somerset N., v.-c. 6, June 1918. See Mr Bucknall's *Revision*; also *Journ. Bot.* 279, 1900, and 333, 1912.—J. W. WHITE.

S. caeruleum Petitmeugin. (*S. officinale*, var. *ochroleucum* × *peregrinum*). Hort. Univ. Bristol, June 1918. A sterile hybrid, in leaf character more nearly intermediate between the parents than is × *S. discolor*. Corolla in bud rose-tinted with the apex greenish;

at maturity pale blue or bluish-rose. Seldom met with as a wild plant, though contained in several botanic gardens in this country and in Switzerland. It may have come to Bristol from Germany when the botanic garden was originally laid out by a former (Saxon) professor.—J. W. WHITE.

S. asperum Lepechin. (*S. asperrimum* Donn in Curt. Bot. Mag.; Sims in DC. Prod.; and Bieb. Fl. Taur. Cauc., quoted by Babington in the *Fl. Bathon.*). Among introduced Comfreys this is one of the rarer species, being confused with *S. peregrinum* Ledeb. from which it can be easily distinguished by its subpetiolate upper leaves and small flowers with obtuse calyx segments. Cultivated at Clifton by Mr Bucknall from a plant obtained from East Lothian through Mr Fraser of Leith, June 1918.—J. W. WHITE.

S. caucasicum Bieb. From Mr Bucknall's garden, Clifton, May 1918. Mr Bucknall has two forms of *caucasicum* in cultivation. One with pale blue flowers was derived from the Chelsea Physick Garden; the other, given him by the Rev. E. S. Marshall, is of slighter build and has flowers of a much deeper blue, but does not differ in any essential character. This may be the *S. racemosum* R. & S., but Mr Bucknall is not certain.—J. W. WHITE.

Myosotis palustris Hill, var. ? [R. 4401]. Muddy ridings of Wytham Wood, Berks, v.-c. 22, July 1918.—G. C. DRUCE. "Beyond the rather erect strict growth, in what way does this differ from the ordinary plant?"—SALMON. "Nearly typical, I should say."—PEARSALL.

Myosotis ——? [R. 4971]. Shallow brook, Amberley Wild Brooks, Sussex W., v.-c. 13, July 1918. *Myosotis caespitosa* Schultz, growing in the water of shallow ditches. It is not of a caespitose growth.—G. C. DRUCE. "*M. caespitosa.*"—SALMON.

Lithospermum arvense L. Swalcliffe Grange, Oxon, v.-c. 23, in cornfields, June 2 and 9, 1918. Sent to show the red root which apparently gives occasion for the colloquial name 'Painting root.'—H. J. RIDDELSDELL.

Verbascum nigrum × *pulverulentum*. [411]. Waste land with parents, Watton, Norfolk W., v.-c. 28, August 8, 1918. *Verbascum nigrum* × *pulverulentum* × *Thapsus*. [410]. Same locality, August 5, 1918. These two plants grow together on a piece of waste land adjoining my premises. When I came to live here about 16 years ago, *V. Thapsus* and *V. nigrum* were growing there wild; I introduced *V. pulverulentum*. Many hybrids have come up in the last seven or eight years. My [410] I think shows traces of all three

parents; [411] shows less trace of *Thapsus* except in the size. All these plants are six feet in height and all show traces of *nigrum* in the flowers. Unfortunately I did not preserve any flowers or seeds, but I hope to do so next year. The flower of [410] shows less of *nigrum* than the other and this may be *V. pulverulentum* × *Thapsus* only. They are a most glorious sight when in full flower.—F. ROBINSON. "[411] Yes; the × *V. Schottianum* Schrader. [410] This may well have the parentage suggested by Mr Robinson, the presence of *nigrum* and *pulverulentum* seem obvious."—DRUCE.

Linaria repens × *vulgaris*. Hedgebank, Aberystwith, Cardigan, v.-c. 46, July 1918. Over about a square mile there grow several forms of the hybrid of which I have distinguished at least five. The largest has flowers a dull bluish green all over, with rather deeper violet veins; this was all cut down when I tried to get it this year. Some have a pale primrose lip and spur with rather bluer wings or standard. Most are primrose with a bright yellow patch on the lip. Others are all blue in various shades, merging into *repens* so gradually that one can only judge by the stouter habit and larger capsules that one has a hybrid. These all come from north of the Rheidol. I have however seen one stray plant of a primrose colour far away on the south side. *L. repens* is rather widely distributed here and *L. vulgaris* also but they come together only in two or three small areas so far as I have noticed.—T. STEPHENSON. "Yes, a good intermediate."—DRUCE. "Yes; nice specimens of this hybrid (= *L. sepium* All.). The seeds from the fruiting example sent me seem all shrivelled and sterile; is this so always in this hybrid? "—SALMON.

Scrophularia ? cinerea Du Mortier. [237]. Hedgerow of lane below hill, Freshwater, Wight, v.-c. 10, August 27, 1916. Few plants in shade and open.—W. C. BARTON. "This seems to be the plant which English botanists have called by the name, but Rouy treats *cinerea* Dum. as a race of *S. alata* whereas the alliance of these plants is with *aquatica*. Is it possible that each species has an entire-scale form? Beeby says it is the prevailing British form of *aquatica* and he had never seen any other. See *Report* 491, 1895."—DRUCE.

Veronica verna L. [383]. Dry heath, Santon, Norfolk W. v.-c. 28, May 25, 1918. Abundant but I was rather late for it.—F. ROBINSON.

Euphrasia brevipila B. & G. [150]. Arthog, towards Cader, Merioneth, 800 ft., v.-c. 48, June 12, 1915.—W. C. BARTON. "Yes, quite typical."—BUCKNALL and MARSHALL. "Although there are a few scattered glands these plants look to me more like *E. borealis* than *E. brevipila*."—PUGSLEY. "Not at all like *borealis*; the texture of

the leaves is quite different, and the general appearance gives no suggestion of *borealis*. I think it is *brevipila*."—DRABBLE. *E. brevipila*, with short glandular hairs on the stem as well as on the bracts and calyx."—PEARSALL.

E. brevipila B. & G. Light pasture land at Wigginton, Oxon, 500 ft., v.-c., 23, June 5, 1918.—H. J. RIDDELSDELL. "Yes."—BUCKNALL, LUMB and MARSHALL. "Yes; flowers small. There are a few short glandular hairs on the stem as well as on the bracts and calyx."—PEARSALL. "These plants have the facies of *E. borealis*, but they are gathered young and it seems uncertain whether the spikes would elongate and the calyx become accrescent in fruit. Some of the specimens are glabrous while others show a few of the shortly-stalked glands characteristic of *E. brevipila*, and they may prove to be correctly named."—PUGSLEY. (Later): "The later specimens subsequently forwarded, although showing a few shortly-stalked glands similar to those of *E. brevipila*, seem to me to resemble *E. borealis*, and are essentially different from my specimens named *E. brevipila* by Townsend, which agree with Gremli's brief description in *Excursionsflora*, ed. viii. (1896)."—PUGSLEY. "Quite unlike *borealis*; I think they are *brevipila*."—DRABBLE.

E. brevipila B. & G., forma *subeglandulosa* Buckn. Poor pasture, Greenscoe, Dalton in Furness, Lancs. N., v.-c. 69b, June 28, 1918. This is the common form in N. Lancs., I have not yet seen the type here.—W. H. PEARSALL. "Correct, I believe, but it should be called var. *subeglandulosa* Townsend."—BUCKNALL. "Doubtless correct. These specimens are mostly eglandular; the occasional glands present on some of them are very short-stalked."—MARSHALL. "These seem to me to be fine specimens of *E. borealis* Towns. I have precisely similar plants from Yorkshire and from Scotland so named by Townsend, and these agree well with his description. Besides differing in the absence of glands, the leaves of these plants are too broad and obtuse, the spikes too dense, the fruiting calyx too accrescent and the capsules too broad and emarginate for *E. brevipila*."—PUGSLEY. "The leaves and bracts in my specimens are quite eglandular; I should call this rather fine *borealis*."—DRABBLE. "Correctly named."—LUMB.

[Mr Pugsley writes *in lit.*:—"It seems to me that people are calling more than one fairly distinct form by the name *brevipila*. The question as to what is typical *E. brevipila* Burnat & Gremli seems to need further investigation."]

E. brevipila B. & G. (eglandular). Boggy ground, Wheal Frances, near Perranporth, Cornwall W., v.-c. 1, August 22, 1918. Named by Mr Druce. A few stalked glands appear to be invariably present

on the corolla, otherwise the plant is eglandular.—F. RILSTONE. "Not *E. brevipila*. The flowers are brightly coloured and conspicuous, and I consider it to be *E. Kerneri* drawn up by the surrounding herbage. Glands on the corolla do not count."—BUCKNALL. "I should have called this *E. Kerneri*. The corolla tube shows distinct elongation after anthesis and the capsule is much shorter than the calyx."—WHELDON. "I am doubtful about this plant. It may be correctly named, though eglandular, but I rather think it is a slender form of *E. Kerneri*."—PUGSLEY. "I think *Kerneri*."—BARTON. "I think this must certainly come under *Kerneri* as we understand it at present."—DRABBLE. In the specimens I examined there were no elongated corolla tubes and on one or two of the plants there were a very few short-stalked glands. I cannot accept *E. Kerneri*; the plants are difficult but nearer *E. brevipila* in my judgment."—PEARSALL. "This is correctly named, but the remark 'eglandular' is incorrect. Some sheets are very misleading through containing slender plants only. They have the thin texture of *Kerneri*; there is no projecting style and no lengthened tube. The habitat is a *brevipila* one."—LUMB.

Euphrasia ——? [P. 7641]. The Glen, Peebles, v.-c. 78, September 1918.—G. C. DRUCE. "Mr Pearsall, Mr Lumb and I independently examined the whole gathering with a microscope and found that some specimens have numerous short-stalked glands, some few, and others are eglandular. All attempts to divide them into groups broke down and I think all must go to one species."—BARTON. "I agree that these are all the same species. Mr Bucknall sent me specimens of his *gracilis-primaria* and supposed hybrid, but I don't think these similar. I can't name them with confidence."—PEARSALL. "This is a difficult gathering for me to name and the specimens are not very satisfactory. Some of them show the short-stalked glands characteristic of *E. brevipila* and I think they should be referred to this as an abnormal form, in spite of their slender habit and small foliage recalling *E. gracilis*."—PUGSLEY. "I had referred this to *E. gracilis*, var. *primaria* Fr., but having compared it with specimens from Kinlochewe (see Towns. *Monogr.* p. 35), I am not satisfied that they are the same. In foliage, flowers and capsules it is very like the Woodford gathering which I thought might be Fries' variety (see my *Brit. Euphr.* p. 22), and hybrids with *E. brevipila* (p. 15), but the habit of these, perhaps due to circumstances of growth, is very different. The Woodford gathering consists of a series passing from a simple eglandular form like *E. gracilis* to almost typical *E. brevipila*, while the Peebles plants are nearly alike except for the presence or absence of glands. The blue medium-sized flowers might well belong to *E. brevipila* × *gracilis*, and I can only suggest that these, together with × *E. difformis* Towns., are different forms or that hybrid. But I do not think that shortly-stalked glands always

denote the influence of *E. brevipila*, and it may be that the Peebles plant is worthy of specific rank. It would not be advisable, however, to describe it as a new species until younger and better specimens are available."—BUCKNALL. " I think certainly not *gracilis*, *curta* nor *brevipila*. It appears to be a poor little starved plant, which it would be most unwise to name."—DRABBLE.

Euphrasia ——? Bank by the sea, Grey Abbey, Co. Down, August 3, 1918. And *Euphrasia* ——? Mountstewart, Co. Down, August 1918.—C. H. WADDELL. " I understand that Mr Bucknall refers these two gatherings to his *E. campestris*, var. *neglecta*. They appear to me however to be forms of *E. brevipila* rather than of *E. campestris*. The glandular hairs of the foliage and calyx are very shortly stalked as in *E. brevipila* and are very sparingly and irregularly distributed. In authentic *E. campestris* sent out by Jordan (in *Herb. Brit. Mus.*) the glandular hairs are as in *E. Vigursii*, *i.e.*, longer and much more numerous, and hence approaching the hair-clothing of *E. Rostkoviana*. In habit and flower also these specimens are unlike *E. campestris* and rather recall *E. nemorosa*, to which (with *E. stricta*) Gremli himself in *Excursionsflora* likens *E. brevipila*. The more than usually compact habit of these plants may be due to situation or exposure. I have precisely similar specimens from Dorset labelled *E. brevipila* by Townsend."—PUGSLEY. " I accept *E. brevipila*, but in the specimens I saw the glandular hairs were quite numerous on the nerves and margins of bracts and especially on the calyx teeth. Apart from this the foliage was very meagre in clothing."—PEARSALL. " Both gatherings, I think, *E. brevipila*. I examined the whole and found the number of glandular hairs varied from many to very few, and one plant was eglandular."—BARTON. " One of the British forms of *E. campestris*. In this the corollas are conspicuous and show a tendency to elongate after flowering. I cannot agree that this is *E. brevipila*, but if I remember rightly, it is nearer to the Derbyshire plant than to my var. *neglecta*. The latter I now think is a glandular form of *E. nemorosa*, hitherto undescribed. I have not seen any British plant at all resembling *E. Tholeyroniana* Gandoger, which is the most distinct and typical of the series of *E. campestris*."—BUCKNALL. " My specimens from Mountstewart are not at all like the specimens of *campestris* which I sent to Mr Bucknall. I do not think these plants have anything to do with *campestris*. Why not *brevipila*? The Grey Abbey plants are different and may possibly come under *campestris*, but they are not much like the Derbyshire plant which I believe to be true *campestris*."—DRABBLE. " The Grey Abbey plant is glandular *nemorosa*, f. *compacta*."—LUMB.

E. nemorosa H. Mart., var. *ciliata* Drabble. Otterbield Island. Derwentwater, Cumberland, v.-c. 70, August 7, 1918.—W. H. PEAR-

SALL. "Near *E. nemorosa*, but scarcely hairy enough for var. *ciliata*; some of the specimens on the sheet being quite glabrous."—BUCKNALL. "A rather slender and flexuous form of *E. nemorosa*, perhaps too nearly glabrous to go under Dr Drabble's variety."—PUGSLEY. "Yes; *nemorosa*, var. *ciliata*."—DRABBLE and LUMB.

Euphrasia ——? [416]. Heath land, Gooderstone, Norfolk W., v.-c. 28, September 17, 1918.—F. ROBINSON. "Material poor; perhaps a slender form of *nemorosa*."—WHELDON. "Gathered late and in poor condition, but it appears to be a slender form of *E. nemorosa*, near var. *macilenta* Gremli, which is said to possess capsules exceeding the floral leaves and to simulate *E. gracilis*."—PUGSLEY. "Material poor; eglandular, very meagre clothing. Probably two plants: (a) spike very lax, capsule narrower and longer, often exceeding teeth; ? *nemorosa*. (b) spike with shorter internodes; ? weak *Kerneri*."—PEARSALL. "*E. Kerneri* ?; but is it worth while to attempt to name *Euphrasiae* unless they are in good condition and of suitable age?"—BUCKNALL. "My specimen is certainly neither *nemorosa* nor *gracilis*; it may be weak *Kerneri* as we at present name this plant."—DRABBLE. "*Kerneri*."—LUMB.

E. curta Wettst., var. *glabrescens* Wettst. [4447]. Simonsbath, Somerset S., v.-c. 5, August 24, 1918. Abundant at 1000 to 1200 ft. near Simonsbath where it ascends to 1450 ft. This agrees very well with some of my gatherings determined by Wettstein. Mr Bucknall thought it better placed under *E. nemorosa*, but that is a more lowland plant according to my experience. It varies much, and the same may be said of *E. curta*, type.—E. S. MARSHALL. "I cannot see *E. curta* in this plant. It seems rather to be a slender form of *E. nemorosa*, near var. *macilenta* Gremli."—PUGSLEY. "I think Mr Marshall is right in placing this as *curta*, var. *glabrescens*."—DRABBLE. "*E. nemorosa*, var. *ciliata* with rather large flowers."—LUMB.

E. occidentalis Wettst. Short turf in sandy ground, Holywell, Cornwall W., v.-c. 1, August 24, 1918.—F. RILSTONE. "Correct."—BUCKNALL. "Yes, but much less robust than usual."—MARSHALL. "The foliage and calyx of some of these plants are practically glabrous, while in others they are clothed with numerous stout bristles. In all of them the glands are extremely few. They all appear however to belong to one species and are, I think, rightly named."—PUGSLEY. "I agree; in my specimens I found plenty of short glandular hairs."—PEARSALL and LUMB. "Yes; but small and very sparsely glandular; not at all typical."—DRABBLE.

E. minima Jacq. [4440]. Simonsbath, Somerset S., v.-c. 5, from 1200 to 1480 ft., August 23, 1918. It descends to 800 ft. near

Withypool. Very variable in size, habit, leaf-cutting and shade of yellow (from creamy to golden, and occasionally orange). The average of this gathering is especially fine.—E. S. MARSHALL. Also [4443] in two stations near Withypool, Somerset S., v.-c. 5, at 850 and 1200 ft., August 15, 1918. Smaller than the last and more slender as a rule. Some of the flowers had a reddish tinge.—E. S. MARSHALL. "These two gatherings show good examples of this interesting plant. Although referred to *E. minima* Jacquin on the authority of the monographer Wettstein, I think the identification is erroneous. *E. minima* is a species that I have repeatedly gathered in the calcareous and granitic Alps of Switzerland, where it is often abundant at an altitude of 5000-7000 ft. It differs essentially from this Exmoor plant by its simple or slightly branched stem, by its broader and usually much more obtuse leaves, and by the two lips of the corolla being subequal, as in *E. scotica* Wettst. The affinities of our much branched form seem to me to lie with *E. gracilis* and *E. nemorosa*, and I see nothing to connect it with the true *E. minima* except the yellow colour of its corolla and its emarginate capsule. I hope to deal more fully with this plant in the *Journal of Botany*."—PUGSLEY. "Having now seen Mr Pugsley's remarks on the Exmoor plant, I entirely agree that it is distinct from the Continental *E. minima*, although when I received small, nearly simple specimens from Mr Hiern at the time of its discovery I thought they were near enough to be included with it. Mr Marshall's fine gatherings are clearly distinct from plants from other British localities, which I can only refer to *E. minima*, excluding my var. *arbuscula*, which I now think should rank as a species."—BUCKNALL. "I do not really understand *minima* at present. I find no suggestion of *gracilis* or *nemorosa*, however. I am fully in agreement with Mr Bucknall in his conclusion that *arbuscula* has nothing to do with *minima*."—DRABBLE. "I still think they come well within the range of *minima*."—PEARSALL. "Good *minima*."—LUMB. See *Journ. Bot.* 169-173, 1919, where Mr Pugsley describes this plant as *Euphrasia confusa*, sp. nov.

E. Rostkoviana Hayne. Near Sedbergh, Yorks NW., 300 ft., v.-c. 65, September 23, 1918.—A. WILSON. "Yes, but in almost all the specimens of this gathering the main axis was damaged."—BARTON. "Correct."—BUCKNALL, PUGSLEY, MARSHALL, LUMB and DRABBLE.

E. Rostkoviana Hayne. [4433]. Simonsbath, Somerset S., 1000 ft., v.-c. 5, August 27, 1918. Ascends to 1400 ft. Capsules truncate or with a shallow notch. Leaves and bracts broad. Mr Bucknall considered this typical, but one plant on the sheet sent to him was referred to *E. fennica*, so there may be some mixture.—E. S. MARSHALL. "Correct."—BUCKNALL, PEARSALL, BARTON, LUMB and DRABBLE. "This appears to differ from [4427] and [4428] only

in its capsules being in some cases less emarginate and in its rather stronger growth."—PUGSLEY.

Euphrasia ——? [415]. Heath land, Gooderstone, Norfolk W., v.-c. 28, September 17, 1918.—F. ROBINSON. "I think this is our ordinary *E. Rostkoviana* with long drawn out flowering stems and gathered late."—PUGSLEY. "*E. Rostkoviana*."—MARSHALL, BARTON and PEARSALL. "Very good *Rostkoviana*; rather small-flowered."—DRABBLE.

Euphrasia ——? [405]. Heath land, Scaning, Norfolk E., v.-c. 27, August 5, 1918.—F. ROBINSON. "*E. Rostkoviana* Hayne, probably modified by growing on dry ground."—BUCKNALL. "*E. Rostkoviana*."—PUGSLEY, MARSHALL, PEARSALL, BARTON, and DRABBLE.

E. fennica Kihlman. [4428]. Near Simonsbath, Somerset S., v.-c. 5, at 1000 to 1200 ft., August 24, 1918. Mr Bucknall confirms the name. Differs from *E. Rostkoviana* by its deeply notched capsules which frequently exceed the sepals, its less branching and usually more slender stem, and narrower leaves. Also [4427] same locality. Confirmed by Mr Bucknall. Quite like the last, but larger on an average. —E. S. MARSHALL. "Both of these gatherings seem to be small-flowered slender forms of *E. Rostkoviana*, with capsules more deeply notched than usual. They are less distinct than the somewhat similar form collected by Mr Barton near Lynmouth in 1917 and referred to *E. fennica* Kihlman. I have not seen authentic *E. fennica*, but I possess good Finnish material sent out as *E. hirtella*, var. *fennica* (Kihlm.) which is probably the same plant. This is of stiff erect growth, with long internodes below and erect branches about the middle of the stem. Its leaves are narrower and more acutely toothed than in the British forms of *E. Rostkoviana*, and its capsules longer, narrowed above and nearly truncate. I think all the Exmoor forms that I have seen are variants of British *E. Rostkoviana* rather than of this Finnish plant which seems to approach *E. hirtella* Jord." —PUGSLEY. (Later): "Since writing the above I have seen an authentic sheet of Kihlman's *E. fennica* at Kew. It is identical with my Finnish material and is labelled by Kihlman '*E. hirtella* Jord., var. *fennica* Lind. f. (= *E. fennica* Kihl.).' Neither of these Simonsbath plants nor that collected by Mr Barton in 1917 seems to me referable to Kihlman's plant."—PUGSLEY. "After examining Kihlman's authentic specimens at Kew I quite agree with Mr Pugsley in rejecting the name *E. fennica* for these plants and for my [277] of last year. My first impression I believe was correct, that the Lynmouth plant belongs to *E. Rostkoviana*, though it is perhaps distinct enough from type to warrant a name. In view of some emphasis laid this year on the deeply-notched capsule it may be noted that in

Kihlman's specimens the capsule is truncate."—BARTON. "This agrees with Mr Druce's specimens which were accepted by Wettstein as *E. fennica*, but Mr Pugsley, having compared it with authentic Finnish specimens, is probably right in rejecting that name for the Exmoor plant. I have seen this small-flowered form from other localities with simple stems or with one or two short branches near the base, while Mr Pugsley states that the Finnish plant has branches at the middle. The British plants may be worthy of a varietal name, but are doubtless connected with *E. Rostkoviana* by intermediate forms."—BUCKNALL. "I should not hesitate to call these plants small-flowered *Rostkoviana*."—DRABBLE and LUMB. See *Journ. Bot.* 173-175, 1919.

E. Vigursii Davey. Downs near Perranporth, Cornwall W., v.-c. 1, August 16, 1918.—F. RILSTONE. "Correct."—BUCKNALL. "Yes, quite typical."—MARSHALL. "This is no doubt correctly named; but a few of the specimens, which are relatively coarse in habit with much ampler foliage, seem indistinguishable from *E. Rostkoviana* except for the purple corolla. It does not appear to have been noticed that the ordinary form of *E. Vigursii* closely resembles *E. campestris* Jord. as represented by Jordan's specimens in *Herb. Brit. Mus.* and that it may be regarded as somewhat intermediate between this and ordinary British *E. Rostkoviana*."—PUGSLEY. "Yes, *Vigursii*; the bushy plants are rather curious, but I do not see any resemblance to *Rostkoviana*."—DRABBLE. "Yes."—LUMB.

E. Vigursii Davey (?). Newton Abbot, Devon S, v.-c. 3, September 27, 1918. Some of these plants are quite eglandular, as is frequently the case with this species. Coll. Miss E. M. PARKINSON; Comm. W. H. PEARSALL. "Not *E. Vigursii*. This is quite eglandular and the branching is different. Cf. *E. curta*, var. *glabrescens*."—BUCKNALL. "Not *E. Vigursii*. The material is mostly fragmentary but it looks like a slender form of *nemorosa*."—PUGSLEY. "Cannot be that as there are no stalked glands, and the habit is quite different. Poor material; it may be *E. curta*, var. *glabrescens*, or perhaps *E. nemorosa*."—MARSHALL. "Certainly not *Vigursii*; it seems to be *curta*, var. *glabrescens*."—DRABBLE. "Glandular *nemorosa*, var. *ciliata*."—LUMB.

E. Kerneri Wettst. In grass at the entrance to the big chalkpit above the Folkestone Warren, off the Dover road, Kent E. v.-c. 15, October 8, 1918. Very conspicuous for its large and beautiful white flowers, rendering it observable at some distance.—J. C. MELVILL. "I agree."—PUGSLEY, PEARSALL, BARTON, LUMB and DRABBLE.

E. Kerneri Wettst. On limestone, Arnside, Westmorland, v.-c. 69a, July 12, 1918. Coll. J. R. CUCKNEY; comm. W. H. PEARSALL.

" Correct I believe."—BUCKNALL. " I think correct for the most part, although some of the specimens show remarkably small flowers. One or two examples however are *E. nemorosa*."—PUGSLEY. " The corolla tube shows no evidence of lengthening after anthesis on my specimens, and the flower is only 5 mm. long. Bucknall says 10-15 mm. long in his Key, and Babington puts *Kerneri* in group *Grandiflorae*. According to description *E. Kerneri* should be branched below the middle; these are branched throughout and one example has three branches bearing secondary branches. I consider it a form of *E. nemorosa*, var. *ciliata* Drabble."—WHELDON. " All my specimens are *nemorosa* var. *ciliata*; there is not the faintest resemblance to *Kerneri*."—DRABBLE. " *Kerneri*."—LUMB.

E. Kerneri Wettst. (?) simulating *E. minima*. Wet slopes on siliceous rocks, E. side of Derwentwater, Cumberland, v.-c. 70, August 14, 1918.—W. H. PEARSALL. " Why not *E. minima*? Corolla 4-5 mm. long, with yellow lower lip. Some of the fruits exceed the calyx, others do not. If not *E. minima* it is probably a *minima* hybrid."—WHELDON. " I think this is probably a dwarf form of *E. Kerneri*, and cannot see in it anything more than a superficial resemblance to the Exmoor *E. minima*."—PUGSLEY. " I agree with Mr Pugsley."—BARTON and BUCKNALL. " Dwarf *Kerneri*."—DRABBLE. " Correctly named, most interesting."—LUMB.

Rhinanthus stenophyllus Schur. Downs near Storrington, Sussex W., v.-c. 13, June 28, 1918. The Rev. E. S. Marshall agrees with the name given.—C. S. SALMON. " Yes."—DRUCE.

R. stenophyllus Schur. [388]. Dry bank of old gravel-pit, Ovington, Norfolk W., v.-c. 28, June 12, 1918.—F. ROBINSON. " I think not, but rather *R. minor* Ehrh."—SALMON. " One of my gatherings of *R. Crista-galli* from a wet meadow near Mildenhall, Suffolk, consists of tall plants with intercalary branches like these, and the leaves vary from as narrow to twice as broad. Soil would account for the less luxuriant growth of Mr Robinson's plants which I have no hesitation in putting to *R. Crista-galli*. The presence of intercalary branches is not of itself evidence of *stenophyllus*."—BARTON. " Perhaps best under *Crista-galli*, although in some points it approaches *stenophyllus*."—DRUCE.

Melampyrum pratense L., var. *vulgatum* Pers., subvar. *digitatum* Beauv. [R. 7198]. Wellington College, Berks., v.-c. 22, July 1918. *Melampyrum pratense* L., subsp. *vulgatum* (Pers.), subvar. *digitatum*, forma *ovatum* (Spenn.) Beauverd. The cumbersome name rivals pre-Linnean cognomens and I should be content to call it *M. pratense* L., var. *digitatum* Beauv. The cutting of the upper bracts is striking. To this I should also refer the plants [R. 7192]

from Perry Wood, Oxon, v.-c. 23, August 1918. See *Report* 45, 1917.—G. C. DRUCE.

M. pratense L., var. *hians* Druce. Llanrwst, Carnarvon, v.-c. 49, in immense quantity, July 1918. *M. pratense* L., *subsp. vulgatum* (Pers.), var. *hians* Beauverd. (*Report* 48, 1917). Covering large areas and affording a mass of colour from its showy rich orange-coloured flowers.—G. C. DRUCE.

M. pratense L., var. *latifolium* Schueb. & Mart. [409]. Wood, Watton, Norfolk W., v.-c. 28, August 11, 1918.—F. ROBINSON. "No; *latifolium* Schueb. & Mart. is not known as British. (See *Report* 44, 1917). This is subvar. *laurifolium* Beauv. of var. *vulgatum* (Pers.)." —DRUCE. "I do not think my specimen is var. *latifolium* auct. Brit. (= *laurifolium* Beauv.) as the lower leaves are too narrow and certainly not ovate-lanceolate as they should be. Some of the broader leaves on my example look diseased or distorted in some way."—SALMON. "The usual form of the species found in the woods by the lower Wye in Gloster and Monmouth."—RIDDELSDELL.

Utricularia intermedia Hayne. [389]. Marsh, Foulden Common, Norfolk W., v.-c. 28, June 13, 1918. Also [390] marsh, Roydon Common, v.-c. 28, June 18, 1918. I have never seen this plant in flower.—F. ROBINSON with F. C. NEWTON. "Yes; and it removes the ? after Norfolk W. in *Top Bot.*"—DRUCE. "Certainly."—SALMON.

Mentha rotundifolia, var. *Bauhini*. [413]. Cult. Watton, August 23, 1918.—F. ROBINSON. "This comes from Hildringham, the original station where Mr Long discovered it. (See *Report* 382, 1892). Mr Arthur Bennett only said it was near *M. Bauhini* Tenore. I am doubtful of its identity with the South Italian plant. Neither Rouy nor Archangeli include *Bauhini* in their Floras. I omitted it from the *Brit. Pl. List*. I will endeavour to obtain M. Briquet's opinion."—DRUCE.

M. citrata Ehrh. Origin Northaw, Herts., H. Peirson; cult. Ventnor, 1917, E. W. Hunnybun; hort. Ledbury, September 20, 1918. See *Report* 155, 1914. When sending this in 1917 the late Mr Hunnybun wrote: "With me it has become similar in every respect, except leaves being more cordate in shape, with the plant described by Mr J. W. White in *Journ. Bot.* 1906."—S. H. BICKHAM. "These beautiful specimens from the Northaw Mint are very acceptable. I put it as *M. piperita*, var. *citrata* (Ehrh.)."—DRUCE.

M. aquatica × *arvensis* (= *M. sativa*), var. *rivalis* Wats. Dry ground, Ball Wood, Wrington, Somerset N., v.-c. 6, September 3,

1918.—IDA M. ROPER. "This I call *M. verticillata*, var. *subspicata* (Weihe). I believe the Abbé Strail so named similar specimens for me but I have not seen a type specimen."—DRUCE. "This seems to me rather nearer *paludosa* than *rivalis*, which, when typical, has the bracts scarcely smaller than the leaves right up to the summit of the inflorescence."—SALMON.

M. gracilis Sm., var. *cardiaca* Baker. Hort. Univ. Bristol, September 1918. These specimens agree with the figure in *E.B.*, with Baker's figure in *Journ. Bot.* 1865, and with a stem (believed to have been gathered by Sole himself) of Sole's "*Mentha gracilis*, Slender Mint, tab. xvi." It seems doubtful if this plant now exists in Britain in the truly wild state. Syme considered it to be an escape from cultivation in most, if not all, of the recorded stations.—J. W. WHITE.

Mentha ——? [R. 7623]. Llyn Coron, Anglesey, v.-c. 52, July 1918.—G. C. DRUCE. "Is not this *M. aquatica* × *arvensis* (= *sativa*) coming under *paludosa* (*i.e.* more on the *aquatica* side)?"—SALMON. "As an aggregate under *paludosa*."—DRUCE.

Calamintha Nepeta Savi. [1389]. Bank, Alphamstone, Essex N., v.-c. 19, August 8, 1918.—G. C. BROWN. "Yes, but most continental authorities agree in calling it *Satureia Nepeta* Scheele."—DRUCE.

Nepeta Glechoma Trev., forma *hirsuta* Benth. Rough field, Tickenham Hill, Somerset N., v.-c. 6, May 9, 1918. Corolla tube 11 mm. long, plant hispid pubescent.—IDA M. ROPER. "Mr W. B. Turrill is preparing a monograph on *Glechoma* and Miss Roper's plant among others, has been sent him. If retained in the genus *Nepeta* the trivial is *hederacea*, not *Glechoma*."—DRUCE.

Ballota ruderalis Sw. Chicken run, Woodhall Spa, Lincs., August 1918. Coll. Rev. F. ALSTON; comm. G. C. DRUCE. This seems to me always alien in Britain.—DRUCE.

Teucrium Scordium L. Braunton Burrows, Devon N., v.-c. 4, July 31, 1918. Among herbage this plant grows to normal height.—H. J. RIDDELSDELL.

Plantago major L., var. *agrestis* Fries. (fide E. G. Baker). Calne, Wilts N., v.-c. 7, September 2, 1915. Var. γ. *agrestis* foliis tenuibus flaccidis hirsutis, scapo filiformi stricto, spica ovato-oblonga, radice annua." *Nov. Fl. Suec.* 25, 1828.—W. C. BARTON.

P. major L., var. *brachystachya* Wallr. Grassy track, Leigh Woods, Bristol, Somerset N., v.-c. 6, August 7, 1918.—IDA M. ROPER.

" Yes; but *P. minima* DC. is hardly separable from this."—BAKER. " Wallroth's description runs: ' Var. ε. *brachystachya.* foliis ovatis parce dentatis trinerviis erectis flaccidis scapo gracili illa subaequanti, spica pauciflora ovato-oblonga ex flosculis laxe composita, operculo rotundo.' *Sched. Crit. Pl. Fl. Hal.* 62, 1822."—BARTON.

Littorella uniflora Aschers. (= *lacustris* L.). [392]. Edge of pools on heath, E. Winch, Norfolk W., v.-c. 28, June 18, 1918.—F. ROBINSON with F. C. NEWTON.

Herniaria glabra L. [417]. Land formerly cultivated, Swaffham, Norfolk W., v.-c. 28, September 21, 1918.—F. ROBINSON. " Yes; the differences between this rare annual or biennial and the perennial *H. ciliata* Bab. are set forth in *Journ. Bot.* 331-2, 1914." —PUGSLEY. " Yes; not included for Norfolk W. in *Top. Bot.*"—DRUCE.

Amaranthus retroflexus L. Amberley, Sussex W., v.-c. 13, September 20, 1918.—A. WEBSTER.

Chenopodium hybridum L. Marston, Oxford, v.-c. 23, September 1918. A rare plant in the county.—G. C. DRUCE.

C. urbicum L., var. *intermedium* Moq. [374]. Ship docks, King's Lynn, Norfolk W., v.-c. 28, August 1917.—F. ROBINSON. " No; the outline of the leaf is not triangular, the spikes are leafy, and the seeds small and mostly vertical, *C. rubrum* L. It corresponds fairly well with the drawing of var. *blitoides* in *Camb. Brit. Flora*, but is rather towards var. *vulgare* in leaf and inflorescence. I think it should go to *C. rubrum*, var. *blitoides* which Dr Moss remarks is liable to confusion with *C. urbicum*, var. *intermedium.*"—BARTON. " This is clearly not an *urbicum* form by its perianth, seeds, &c. Coming under *rubrum*, it may well be var. *blitoides.*"—SALMON.

C. opulifolium × *album.* [419]. Cultivated land, Watton, Norfolk W., v.-c. 28, September 10, 1918. This plant grows abundantly with both parents and is now much the commonest of the three. —F. ROBINSON. " I see no evidence of hybridity; only *opulifolium*, and Dr Thellung agrees.—DRUCE. " My specimen looks like a hybrid. It would be interesting if Mr Robinson would send a further supply next year with both parents."—BARTON.

C. album L., var. Waste ground, Bradford, v.-c. 64, August 28, 1918.—J. CRYER. " This must, I think, go to *C. striatum*, but it is immature."—DRUCE.

C. leptophyllum Nutt. Waste ground, Bradford, v.-c. 64, September 4, 1918.—J. CRYER.

C. glaucum L. Byfleet, Surrey, v.-c. 17, August 1918.—G. C. DRUCE and Lady DAVY.

C. polyspermum L., var. *spicatum* Moq. (= *acutifolium* Sm.). Peat cutting, Shapwick, Somerset N., v.-c. 6, August 8, 1918.—IDA M. ROPER.

C. hircinum Schrad. var. ? Waste ground, Bradford, v.-c. 64, August 28, 1918 Similar but much smaller leaves than type, and not so distinctly three-lobed or attenuated as var. *subtrilobum* Issl.—J. CRYER. "Yes *hircinum*, but not quite the var. *subtrilobum* of Issler."—DRUCE.

Chenopodium ——? Waste ground, Bradford, v.-c. 64, August 28, 1918.—J. CRYER. "This is probably *C. paniculatum* Hook., which has been found adventive at Galashiels, a wool alien from South America. See *Adventive Flora of Tweedside*, 193."—DRUCE.

Polygonum dumetorum L. Deerleap Wood, Wootton, Surrey, v.-c. 17, September 6, 1917. Apparently a new station for this local and uncertain species. Mr A. H. Evans could not see anything of it here in 1918, but it will no doubt recur later.—C. E. SALMON.

P. Persicaria L. N. Mundham, Sussex W., v.-c. 13, October 11, 1918. Ochreae fringed, peduncle slightly glandular, styles united half-way, flowers pure white, nut bluntly trigonous, dark brownish-black, shining.—J. E. LITTLE. "In my example the glands are extremely rare and require searching for. In other examples of *Persicaria* in my herbarium I see them, in spite of book-characters! This white-flowered form is surely rare? According to *Camb. Brit. Fl.* our common plant is *P. Persicaria*, var. *agreste* Meissner, under which this N. Mundham plant would come."—SALMON. "*P. Persicaria* L., f. *albiflora*."—DRUCE.

P. minus Huds. [418]. Wet place on common land, E. Winch, Norfolk W., v.-c. 28, September 21, 1918.—F. ROBINSON. "Yes, the var. *subcontiguum* Wallich, which is in my experience the commoner form of it in Britain."—SALMON. "The seeds are larger than in my Abingdon specimen. I suppose it is the *dubium* as named for me by Dr Moss which is called var. *elatum* in *Camb. Brit. Fl.*, but surely in error since *interruptum* Meissner of 1832 has precedence over *elatum* Fries of 1839, and it stands correctly in *Fl. Fr.* as var. *interruptum* (of *minus*) Rouy. Meissner made it a variety of *P. strictum*."—DRUCE.

P. aviculare L., var. *arenastrum* (Bor.). Sea coast, Ballwater, Co. Down, August 1918.—C. H. WADDELL. "This is the *P. aequale* Lindm."—DRUCE.

P. sachalinense F. Schmidt. Marston brickyard, Oxford, v.-c. 23, September 1918. Quite naturalised there; almost certainly derived from the Botanic Garden.—G. C. DRUCE.

Viscum album L. Brockley Combe, Somerset N., v.-c. 6, February 23 and May 28, 1918. Parasitic on *Pyrus Aria*.—IDA M. ROPER. "Acceptable specimens with the unusual host *P. Aria*."—DRUCE.

Euphorbia Cyparissias L. Churn Downs, Berks., v.-c. 22, July 1918.—G. C. DRUCE.

Ulmus nitens Moench × ——? Nine Springs, Hitchin, Herts, v.-c. 20, March 9 and September 5, 1918. Of fifty flowers examined 5 had 4 stamens, 30 had 5 stamens, and 15 had 6 stamens. Extremities of branches finer than in *U. glabra* Huds., rather whiplike and drooping. *Branchlets*: summer shoots hairy; one year old shoots hairy or not, with no marked evidence of striation. The trunk has been lopped below but the crown was fairly large. *Leaves* up to 3½ in. × 2 in. *Petioles* pubescent short not exceeding ¼ in. *Laminae*: spring leaves glabrescent above becoming smooth and shining; summer leaves shortly hairy above, pubescent below; all narrower and more acute than in *U. campestris*. No samaras produced in 1918.—J. E. LITTLE. "This is probably a hybrid as it is not exactly *U. nitens*."—HENRY. "Dr Williams shows that *nitens* is an untenable name, being antedated by *U. carpinifolia* of Borckhausen Rheinm. Mag. i., 498, 1793, and therefore the numerous comb. nov. of the *Camb. Brit. Fl.* may be again renamed."—DRUCE.

× *U. vegeta* Schneider. (The Huntingdon Elm). Clifton Down, Gloster W., v.-c. 34, February, March, and August 1918.—IDA M. ROPER. "Yes."—HENRY.

Salix triandra × *viminalis* (*S. lanceolata* Sm.). ♀. Lane near Chertsey, Surrey, v.-c. 17, May 14, 1916.—A. B. JACKSON and J. FRASER.

Populus alba L. Burpham, Sussex W., v.-c. 13, July 1918. Large trees by the Arun.—G. C. DRUCE. "Yes."—HENRY.

P. tremula L. Churn, Berks., June 1918.—G. C. DRUCE. *P. canescens* Sm."—JACKSON and BARTON. "A form of *Populus canescens*."—HENRY.

Helleborine viridiflora Wh. & Tr. Sandhills, Formby, July 27. and Hightown, Lancs. S., v.-c. 59, July 27, 1918.—W. G. TRAVIS.

× *Tritonia crocosmiflora* Nicholson (*T. aurea* × *Pottsii*) = *Monbretia crocosmiaeflora* André. [4457]. Well established by the R. Barle at intervals for about three miles below Simonsbath, Somerset S., v.-c. 5, August 24, 1918. Flowers of a more vivid scarlet when fresh than is usual in the garden plant; but the colour is partly lost in drying. Leaves were found by Lady Davy, June 1916. I owe the synonymy to Mr A. J. Wilmott. Undoubtedly seeded down, not planted. It seems strange that an artificial hybrid should be so fully fertile.—E. S. MARSHALL.

Allium carinatum L. Tay-side, near Perth, Mid Perth, v.-c. 88, August 1918.—G. C. DRUCE.

Scilla autumnalis L. South cliffs of Guernsey, September 1913. —C. V. B. MARQUAND.

Juncus acutus L. Vazon Bay, Guernsey, September 1912.—C. V. B. MARQUAND.

J. bufonius L., var. *ranarius* (Song. & Perrier). Damp sandy lane, Formby, Lancs. S., v.-c. 59, July 27, 1918.—W. G. TRAVIS. " Only stunted forms of *J. bufonius* I think. In 1917 I examined some hundreds of plants growing on Countisbury Common, N. Devon. at 1000 ft., and found on the bare ground of the narrow paths small plants indistinguishable from these (many even more tufted and with the perianth segments shorter in comparison with the capsule), while under the grass at the edge of the paths was typical *J. bufonius* though not exceeding a few inches in height; and between these extremes occurred a complete series of intermediates, the form of which was evidently determined by the situation. Study of these plants in different localities for several seasons has convinced me that all our British plants hitherto put to *J. ranarius* are forms of *J. bufonius*, and that Prof Graebner was wrong in identifying our plant of the exposed coast (*New Phyt.* x., 321 and 327; *Report* 129, 1911) and from sandy golf links (*Report* 190, 1912) with the true *J. ranarius*. Perrier's own specimens in *Herb. Brit. Mus.* and at Kew are very different; they are about 4-5 inches high and neither stunted nor densely tufted. The original description runs as follows: *Juncus ranarius* Song. & Perrier ap. Billot Annot. 192, 1859, non Nees. J. radice fibrosa, culmis sterilibus nullis, eorum loco fasciculis foliorum floriferis 1-2 foliatis, floribus solitariis subfasciculatisve; perigonii laciniis anguste lanceolatis; exterioribus capsulam aequantibus, interioribus illa paulo brevioribus; capsula oblonga, basi subattenuata, apice obtusa; seminibus laevibus ovoideo-globulosis. Le *J. ranarius* diffèrt nettement du *J. bufonius* et des espèces voisines par les divisions extérieures du périgone égalant ou dépassant à peine la capsule et les intérieures plus courtes qu'elle. Outre les caractères

précédents il se distingue encore par sa capsule plus allongée, presque une fois plus grosse et sa floraison plus précoce d'une quinzaine de jours. The description in *Report* 35, 1911, lines 12-17, covers the Southport and Pyrford plants and these of Mr Travis, but does not correspond with the German text quoted on the same page which shows that *J. ranarius* should have the *inner* perianth segments somewhat *shorter*, the outer as long as or somewhat longer than the capsule; and the capsule distinctly narrowed at bottom. Hayward's *Pocket Book*, 1914 ed., p. 274, should be corrected in the same sense. It may be noted that Rouy gives *J. ranarius* Song. & Perrier as a synonym of *J. ambiguus* Gus., but alters Gussone's description ' calycinis foliolis tribus exterioribus acutis capsulam oblongam acutam aequantibus ' to ' capsule peu exserte dépassant les divisions internes ou les égalant, plus courte que les divisions externes.' "—BARTON.

Potamogeton zosterifolius Schum. Plentiful in Cromford canal, near Matlock, Derby, v.-c. 57, July 17, 1884.—C. BAILEY. " Yes, correct; the leaves are longer and not so obtuse as in Schumacher's type specimens."—BENNETT.

P. acutifolius Link. Peppering, Burpham, Sussex W., v.-c. 13, June 28, 1918.—R. J. BURDON. " A new Sussex station, I believe, though found by Borrer at Amberley, a few miles away. A scarce plant in the whole county."—SALMON.

P. pusillus L., var. [403]. Ditch, Scoulton, Norfolk W., v.-c. 28, August 4, 1918. Mr Bennett says this is a variety, but without naming it.—F. ROBINSON. " Not *P. trichoides*, but *P. pusillus* L." —BENNETT.

[*Potamogeton panormitanus* Biv.-Bern. *P. gracilis* Fries, teste Hagström. *P. Noltei* Ar. Bennett. This plant long put under *pusillus* as a variety (*Journ. Bot.* 1881); although Reichenbach adopts the species (' species videtur distincta ') Hagström *Critical Researches in Potamogeton* 99, 1916, and Italian botanists generally made it only a synonym of *pusillus*. The whole of the British specimens named *pusillus* will need to be critically examined to see under which they shall be placed.—Ar. BENNETT (March 1, 1919.).]

P. rutilus Wolfg. Llyn Coron, Anglesey, v.-c. 52, July 1918.—G. C. DRUCE and Mrs WEDGWOOD. These are the first specimens of this species distributed in Britain; the previous records for all other counties being erroneous. It occurs in small quantity and was first discovered by Mr J. A. Griffith in 1892. This made my fifth visit to the locality, as in 1917 the weather proved too stormy for boat-dredging. This year Mrs Wedgwood and I were more fortunate.—G. C. DRUCE.

Naias marina L. [414]. Edge of lake, Hickling Broad, Norfolk, v.-c. 27, August 30, 1918. Confined, so far as I saw, to a very restricted area.—F. ROBINSON.

Cyperus longus L. [420]. Apesdown, Wight, v.-c. 10, October 15, 1918. Coll. D. M. HEATH; comm. F. ROBINSON. Also from Torteval, Guernsey, September 1913.—C. V. B. MARQUAND.

Cyperus ——? Waste ground, Bradford, v.-c. 64, September 3, 1918. In abundance.—J. CRYER. "*Cyperus congestus* Vahl."—THELLUNG.

× *Scirpus carinatus* Sm. Arun-side, near Arundel, Sussex W., v.-c. 13, July 1918. With *triqueter* but no *lacustris*. Is this an instance like *Spartina Townsendi* in which one of the assumed parents has decreased or entirely disappeared? I have a strong suspicion that, if a hybrid, its second parent is *S. Tabernaemontani* which I saw growing near North Stoke.—G. C. DRUCE.

S. Holoschoenus L. Braunton Burrows, Devon N., v.-c. 4, July 31, 1918—H. J. RIDDELSDELL.

Eriophorum vaginatum L., var. [391]. Marshy heath, Roydon Common, Norfolk W., v.-c. 28, June 18, 1918. I send this first because it is a great rarity in Norfolk and secondly because I have never seen a form with such long leaves before.—F. ROBINSON. "Just *vaginatum*, it seems to me, with rather luxuriant foliage."—SALMON. "I have gathered specimens exactly corresponding near Arthog, v.-c. 48, in company with shorter-leaved forms; under type."—BARTON.

Rynchospora alba Vahl. Heysham Moss, v.-c. 60, August 6 1917.—J. CRYER.

Carex fulva Host. [393]. Marsh, Saham Toney, Norfolk W., v.-c. 28, June 24, 1918.—F. ROBINSON. "Yes, I saw it there last year with Mr Robinson."—DRUCE.

C. flava, var. *oedocarpa* × *fulva*. Sent from Great Bedwyn, Wilts N., v.-c. 7, by Mr C. P. Hurst in June 1918, with its putative parents.—G. C. DRUCE. "I should have thought this would be *C. fulva* crossed with *Oederi*, var. *oedocarpa* rather than any *flava* form."—SALMON. "Seems to be our commonest hybrid sedge, *C. fulva* × *Oederi*, *oedocarpa*. The second parent agrees better with *C. Oederi* than with *C. flava* or *lepidocarpa*, as the beak of the fruit is straight, not abruptly deflexed."—MARSHALL. "I use the name

flava in an aggregate sense, keeping under it var. *oedocarpa*. *C. Oederi* is, I think, a distinct species from *flava* or *lepidocarpa*, distinguished by its small perigynia, 2-3 mm. long, with very short, straight, abruptly contracted beak. *C. flava*, var. *oedocarpa* I make synonymous with var. *minor* Towns. The smallness of the perigynia seems to be a more reliable character than the direction of the beak, which is not always deflexed in *flava* (there is a var. *rectirostra*). I doubt if true *Oederi* is found in the Kennet valley."—DRUCE.

C. ornithopoda Willd. Fell End Clouds, Wild Boar Fell, Westmoreland, v.-c. 69, Scar limestone, 1450 ft., July 13, 1918. I regret this was gathered too late to produce good specimens, the perigynia having mostly shed.—A. WILSON.

C. humilis Leyss. Origin Clifton Down, hort. Reigate, May 1918. A small scrap of a root was accidentally brought home with another plant in 1907, and it has increased to a large clump in the rockery, thriving well on Upper Greensand stone.—C. E. SALMON.

C. montana L. Near Bracknell, Berks, v.-c. 22, June 1918. On the heathy margins of a road where it was discovered by our member, Mr J. W. Higgens, in 1917. It extends also into the adjoining wood. A great proportion of it was barren. A capital addition to the county flora.—G. C. DRUCE.

Panicum Crus-Galli L. Yiewsley, Middlesex, v.-c. 21, September 16, 1918.—A. WEBSTER. "Yes."—DRUCE.

P. Ischaemum Schreber. Near Pyrford, Surrey, v.-c. 17, October 1918.—Lady DAVY and G. C. DRUCE. This name antedates *P. glabrum*, &c. In a fallow field and among potatoes in countless numbers, the plants mostly prostrate.—DRUCE.

Setaria viridis Beauv., var. *majus* Gaud. On refuse near the Frome at Eastville, Bristol, September 29, 1916.—J. W. WHITE. *S. germanica* P. B. Refuse tip, same locality and date.—J. W. WHITE. "I call it *S. italica* Beauv."—DRUCE. "The var. *majus* Gaudin is a mere nutrition form. Kornicke, *Handbuch des Getreidebaues*, i., 278, says he has raised Gaudin's *majus* from seed of ordinary *S. viridis*. *S. italica* is the cultivated cereal, distinguished from *S. viridis* by the persistent fruit; in good soil the panicle is large and branched, but when starved it approaches *S. viridis* in appearance; and var. *germanica* is merely a reduced state of *S. italica* of no varietal value. Both *S. viridis*, the wild plant, and *S. italica*, the cultivated one may have awns wanting or of different lengths, and green or violet in colour. Kornicke gives a long list of races or forms based on these differences in almost all possible

combinations. Dr Stapf considers both Mr White's plants come under *S. italica*. The name *majus* Gaudin should disappear from our lists."—BARTON.

S. glauca Beauv. Waste ground, Bradford, v.-c. 64, September 3, 1918.—J. CRYER.

Phalaris minor Retz. In greenhouses in the north of Guernsey, August 1913.—C. V. B. MARQUAND. Also from waste ground, Bradford, v.-c. 64, June 28, 1918.—J. CRYER. Also a small-spiked form from low lying tracts in the north of Guernsey, September 1913.—C. V. B. MARQUAND. " This is the form which I sent to the Club in 1912 (*Report* 294) and submitted to Prof. Hackel later. It is ' No. 3, an intermediate state ' (*i.e.* between type and a starved state) of his reply, see *Report* 516, 1913. I send a few examples of my gathering for comparison."—BARTON.

Phleum phleoides Simonkai (= *Boehmeri* Wibel). [395]. Dry heath on chalk, Swaffham, Norfolk W., v.-c. 28, July 11, 1918. Also [399] heathland in gorse, Barnham Common, v.-c. 28, July 18. 1918. I have never seen this long-leaved form before ; it was growing in thick gorse.—F. ROBINSON.

Polypogon monspeliensis Desf. Waste ground, Bradford, v.-c. 64, July 11, 1918.—J. CRYER. " Yes."—DRUCE.

Calamagrostis epigeios Roth. [1390]. Ditch, Layer-de-la-Haye, Essex N., v.-c. 19, August 11, 1918. A plant I have hitherto overlooked near Colchester. It is one of our most familiar species in the ditches of Belgium.—G. C. BROWN.

Deyeuxia neglecta Kunth, var. *Hookeri* (Syme). Near Watton, Norfolk W., v.-c. 28, July 1918, where it was discovered by Mr Robinson ; a remarkable extension of its area.—G. C. DRUCE.

Deschampsia alpina R. & S. Lochnagar, Aberdeen S., v.-c. 92, August 1918. In great luxuriance and beauty. Seen also in the shoulder of Ben Nevis at about 4000 ft.—G. C. DRUCE.

Avena strigosa Schreber. [349]. Stubble field, Pitts Hill, near Petworth, Sussex W., v.-c. 13, September 2, 1918.—W. C. BARTON. " Yes ; the reddish-black awns are a conspicuous feature in the field."—DRUCE.

Cynosurus echinatus L. Waste ground, Bradford, v.-c. 64, June 28, 1918.—J. CRYER. " Yes."—DRUCE.

Koehleria gracilis Pers., subsp. *britannica* Domin. [353]. Railway bank, Mildenhall, Suffolk W., v.-c. 26, June 6, 1916. The flat lower leaves seem to put all these under *K. gracilis* (though in some plants a number of the leaves are rolled). The largest specimens [353 A] correspond closely to the description of *britannica* (*Journ. Bot.* 356, 1905; *Report* 144, 1905); the smaller densely caespitose forms [353 B & C] are perhaps nearer to *gracilis* type, except that they vary in the amount of pubescence below the panicle and on the rachis. In the case of the specimens labelled [353 C] this is small, and these might perhaps go to type. Dr Domin appears to reject hairiness of keel of flowering glumes as a diagnostic character. The distance between the upper leaf and panicle varies greatly. All plants were growing close together under exactly the same conditions, but the forms A, B, C, were in homogeneous clumps.—W. C. BARTON. "Yes; as Dr Domin admits, the *Koehlerias* are very plastic and *britannica* deserves no higher than varietal grade."—DRUCE.

Poa pratensis L., var. [R. 4774]. Holywell, Oxford, v.-c. 23, June 1918. A broad-leaved form, ? var. *anceps* Gaudin.—G. C. DRUCE.

P. pratensis L., var. [R. 1611]. Weston-on-the-green, Oxford, v.-c. 23, June 1, 1918.—G. C. DRUCE.

P. nemoralis L. Bagley Wood, Berks, v.-c. 22, June 1918.—G. C. DRUCE.

P. nemoralis L., var. ? Plantation near Bingley, v.-c. 64, June 23, 1918. Spikelets 1-2 flowered, stem and panicle slender, probably var. *angustifolia* (Parn.).—J. CRYER. "This is perhaps var. *angustifolia* Parnell; the spikelets seem almost uniformly 1-flowered. But is *angustifolia* of higher rank than a form?"—SALMON.

P. compressa L., forma. Limestone walls, Clifton, July 18, 1918. —J. W. WHITE.

P. compressa L., var. *polynoda* (Parnell). Top of a garden wall, Saddlehouses, Braddon, Isle of Man, v.-c. 71, June 1918. Coll. G. A. HOLT.; comm. C. BAILEY. Spikelets of 4-5 free florets, lower pale with three broad hairy veins and two slender intermediate ones. *Poa compressa*, *β. polynoda* Asch. & Graebn.; *Poa polynoda* Parnell.—C. BAILEY. "*Poa compressa*, forma."—O. STAPF. "Not recorded for v.-c. 71 in *Top. Bot.*"—DRUCE.

Festuca gigantea Vill., var. *triflora* Koch. [351]. Edge of wood, Lodsworth, Sussex W., v.-c. 13, August 24, 1918. Growing with type and a few intermediates. The ± erect panicle makes the

variety noticeable, but the plants showed a tendency to vary in this respect according to the number of spikelets and size of panicle; and possibly the weight of the spikelets may account for it. As to the number of flowers in each spikelet, I found 3 most frequent, and often on the same plant some spikelets with 2 or 4 flowers. The ' variety ' may be a mere nutrition form, in which case it should not appear in our lists. Has it been tested from seed?—W. C. BARTON.

F. elatior L., f. *pseudo-loliacea* Curt. [13]. Aylestone meadows, near Leicester, v.-c. 55, July 1918.—A. E. WADE. "× *F. adscendens* Retz. (= *F. loliacea* Curt.)."—DRUCE.

F. pratensis Huds. × *Lolium perenne* L. (*F. loliacea* Curt.). [394]. Farm premises, Watton, Norfolk W., v.-c. 28, July 8, 1918. —F. ROBINSON. " Yes; × *F. adscendens* Retz."—DRUCE.

F. ovina L., f. *hispidula* Koch. Douglas, Isle of Man, v.-c. 71, June 1918. Coll. G. A. HOLT; comm. C. BAILEY. " My specimen has not a complete rootstock, but one of the plants has a runner; hence I wonder if it is not *F. rubra*, var. *barbata*."—DRUCE.

F. uniglumis Soland. Littlehampton Golf Links, Sussex W., v.-c. 13, June 8, 1918.—R. J. BURDON. " Yes; it is not given in *Top. Bot.* for Sussex W., although in Arnold's *Flora* it is cited for Littlehampton. If the oldest trivial is retained the plant should be called *F. membranacea* (L.)."—DRUCE.

F. Myurus L. Waste ground, Bradford, v.-c. 64, June 11, 1918. In great abundance.—J. CRYER. " Yes; tall specimens."—DRUCE.

Festuca ——? [398]. Edge of pond, Merton, Norfolk W., v.-c. 28, July 14, 1918.—F. ROBINSON. " A form of *F. arundinacea* Schreb. with more shortly stalked spikelets, and approaching the var. *pauciflora* Hartm."—DRUCE.

Bromus unioloides H.B.K. Waste ground, Bradford, v.-c. 64, July 7, 1918.—J. CRYER. " Yes."—DRUCE.

B. hordeaceus L., var. *glabratus* Doell. Waste ground, Bradford, v.-c. 64, June 28, 1918.—J. CRYER. " Yes."—DRUCE.

B. hordeaceus L., var. *leptostachys* (Pers.). [R. 1610]. Weston, Oxford, v.-c. 23, June 1918. This is the small narrow-spikeletted form to which Persoon's name appears strictly to belong. The larger and coarser plant with glabrescent large spikelets I refer to var. *glabratus* Doell. The var. *leptostachys* is a frequent ingredient in seedcrops.—G. C. DRUCE.

Hordeum jubatum L. On rubbish tipped at Eastville, Bristol, September 19, 1918.—J. W. WHITE. " Yes."—DRUCE.

Equisetum maximum Lam. Bathford Hill, Somerset N., v.-c. 6, April 18 and July 2, 1918. Grows on a dry open slope over a limited area.—IDA M. ROPER.

E. limosum Willd., var. *verticillatum* Doell, subvar. *leptocladum* (Doell) R. & F. Ditches on sand dunes near Formby, Lancs. S., v.-c. 59, July 1917.—J. A. WHELDON. " This is an extreme form which I know well from Dorset and elsewhere, but I think only dependent on external conditions and hardly of varietal rank."—MARQUAND.

E. palustre L., var. *polystachyum*. Deeping St James, Lincs., September 1, 1918.—A. WEBSTER.

Asplenium lanceolatum Huds., var. *obovatum* Gren. & Godr. [346]. Old wall, Countisbury, Devon N., v.-c. 4, August 28, 1917. —W. C. BARTON.

A. Adiantum-nigrum L. [356]. To show variation in E. Lynn valley, Devon N., v.-c. 4, August 1917.—W. C. BARTON.

Lastraea Filix-mas Presl, var. Grayfield Wood, Hallatrow, Somerset N., v.-c. 6, July 26, 1918. Frond 4 ft. long.—IDA M. ROPER. " Yes; but it should be *Dryopteris Filix-mas* Schott. approaching var. *affinis* Newman."—DRUCE.

L. aristata Rendle & Britten, forma. Origin, gravelpit, Hoe, Norfolk W., v.-c. 28; cult. Colchester, August 13, 1918. A very distinct form from the ordinary *L. aristata* differing in the much larger, stiffer, and more erect fronds with the tips of the pinnae incurved and in the curled pinnules. These features have remained constant in cultivation, though the fronds do not reach so large a size (nearly 4 ft.) as in the wild specimens.—G. C. BROWN. " Yes; but Pteridologists following Christensen in *Index Fil.* are using the name *Dryopteris*. This is one of the many forms of *aristata*."—DRUCE.

Dryopteris cristata A. Gray. Near Watton, Norfolk W., v.-c. 28, July 1918.—G. C. DRUCE.

Phegopteris polypodioides Fée. Near Simonsbath (1300 ft.), Somerset S., v.-c. 5, September 2, 1918. Locally abundant, often large and rather variable, in one station. I have reason to believe that Lady Davy found it in 1916 about three miles south of this locality.—E. S. MARSHALL.

Nitella opaca Agardh. Pond on Yate Common, Gloster W., v.-c. 34, March 22, 1918.—J. W. WHITE. "Yes."—GROVES. Also "winter state with strongly mucronate branchlets," millstream near Harbertonford, Devon S., v.-c. 3, February 1918.—C. V. B. MARQUAND.

N. translucens Agardh. Hele Agar Marsh, Cornwall, W., v.-c. 1, March 14, 1918.—C. V. B. MARQUAND.

N. mucronate Miquel, var. *gracillima* Groves and Bullock-Webster in Journ. Bot. 323, 1917. Pond (old strontia pit) east of Rangeworthy, Gloster W., v.-c. 34, March 22, 1918.—J. W. WHITE. "The original plant I take it."—GROVES.

N. intricata Braun. (*N. glomerata* Chev. on labels by a slip of memory). Twinstead, Essex N., v.-c. 19, June 1918. For the past twenty years I have constantly visited this piece of water but only *Glyceria* and a form of *Ranunculus heterophyllus* hitherto appeared. It was thoroughly cleared out about three years ago and in May 1918 the bare bottom was thickly covered with this Charad, which probably the Rev. A. Woodruffe-Peacock would say was duck-brought. May not the disturbance of the mud have led to the exposure of long-buried nucules? There is not a trace of it in the pond in 1919.—C. C. DRUCE. "*Tolypella intricata* Leonh."—GROVES.

Chara vulgaris L., forma *munda*. Pond near Lancresse, Guernsey, July 1913.—C. V. B. MARQUAND. "A very pretty little form of this unincrusted state of *C. vulgaris*."—GROVES.

C. fragifera Durieu. Pond near Land's End, Cornwall W., v.-c. 1. March 1918.—C. V. B. MARQUAND.

C. fragilis Desv., subsp. *delicatula* (Braun). Grande Mare, Guernsey, September 1913.—C. V. B. MARQUAND.

SEEDLINGS.

Contributed by Mr G. C. DRUCE :—

Chelidonium laciniatum Mill. Hort. Oxford, June 1918. Sent in order to show how perfectly the characters are transmitted. Out of many thousands I have seen not one showed a reversion to *C. majus*. *C. laciniatum* is a perfectly good species but its origin is obscure.

Geranium lucidum L. Boar's Hill, Berks., June 1910.

Tragopogon ——? Hort. Oxford, August 1918. These are seedings of the plant named *T. orientalis* L. by Dr Thellung; originally from Wolvercote, Oxford.

Contributed by Mr W. C. BARTON :—

Ranunculus repens L. *Fumaria officinalis* L. *Gnaphalium uliginosum* L. *Myosotis arvensis* Lam. *Lamium purpureum* L. *Chenopodium polyspermum* L. *Euphorbia Peplus* L. All from garden ground at Lodsworth, Sussex W., v.-c. 13, August 1918.

Trifolium dubium Sibth. Garden at Lodsworth, August 1918. " Occasionally this species produces quinquipartite, pinnate leaves. I found plants showing this peculiarity on Barry Island, Glamorgan, in 1906 and grew them in my garden at Aberdare, but I have never seen elsewhere or heard of this phenomenon. In the dried state it looks as if the extra pair of leaflets arose from the division of the terminal leaflet."—RIDDELSDELL.

Sonchus asper Hill. Garden at Lodsworth, August 1918. Older plants in the garden were all *S. asper*.

Galium Aparine L. Shrubbery at Epsom, Surrey, v.-c. 17, January 1, 1918.

Galinsoga parviflora Cav. Window boxes at 43 Rosary Gardens, S.W., August 1918.

Contributed by Mr A. E. WADE.

Capsella Bursa-Pastoris Medic. [18]. *Senecio vulgaris* L. [17]. *Urtica urens* L. [16]. All from Leicester, v.-c. 55, September 1918.

Contributed by Miss I. M. ROPER.

Spiraea Ulmaria L. Cotcutt Moor, Somerset N., v.-c. 6, June 17, 1918.

SEEDS.

Mr S. H. Bickham sent a good supply of seeds of *Scrophularia vernalis* L. and *Fritillaria Meleagris* L., forma *alba*.

CORRECTION ON *REPORT* 1916.

p. 574. *Hieracium Pilosella* L., var. *nigrescens* Fr. " My sheet is not var. *nigrescens*. I submitted it to Mr Marshall and he commented ' Not var. *nigrescens*, which is both pilose and glandular on the heads. Here they are densely glandular without any simple hairs. Though not dwarf it comes best under var. *concinnatum*.' "—BARTON.