THE BOTANICAL SOCIETY AND EXCHANGE CLUB OF THE BRITISH ISLES.

REPORT FOR 1916

OF THE

BOTANICAL EXCHANGE CLUB

BY THE

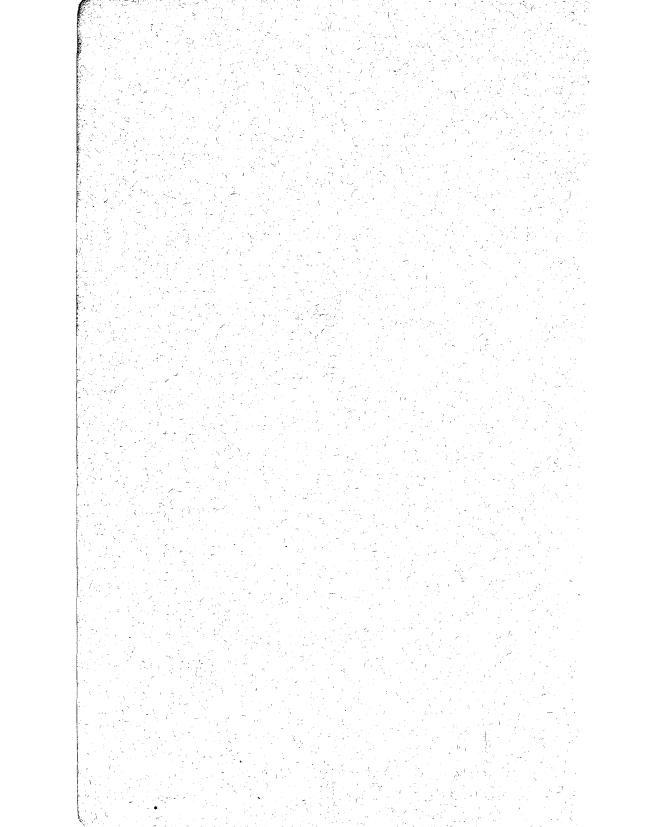
EDITORS AND DISTRIBUTORS,
W. H. PEARSALL AND D. LUMB.

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(VOL. IV. PART VI.).

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(Conveniently Abbreviated for Citation REP. B.E.C.)

BY THE

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W. H. PEARSALL AND D. LUMB.

The Subscription, 7s 6d per annum, and Non-Contributing Members' Subscription of 5s per annum, become due on January 1, 1917, and should be sent to

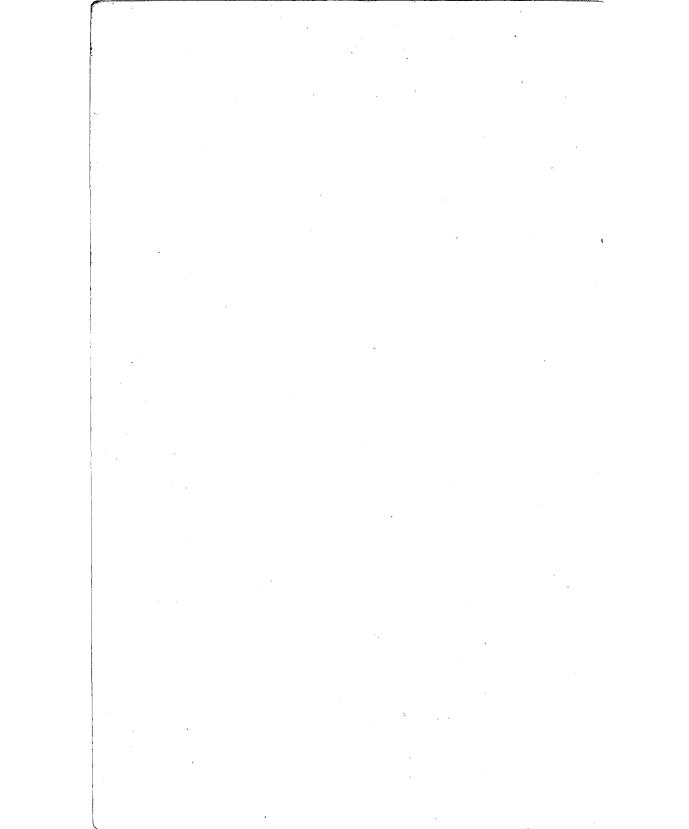
G. CLARIDGE DRUCE,
YARDLEY LODGE,
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PRINTED BY T. BUNCLE & Co., ARBROATH.

June 1917.



REPORT OF THE DISTRIBUTORS FOR 1916.

Our first duty is to thank all those who have helped us so readily by looking again and again at specimens, by revising their opinions, and by loans of helpful authenticated plants. That there should still be lack of unanimity in some cases, distresses us not a little. Having seen all the plants more than once, we should have liked to add our opinion in several places, but seeing that we are so far from large collections of "ad rem" plants, such opinion must necessarily be humble and may possibly be worthless. We have, however, no hesitation in naming our own sheets of Batrachium as follows:-Mr Wilson's Ribble and Beetha plants, fluitans Lam.; Mr Druce's P. 141, Drouetii Sch.; Mr Wade's Nos. 5 and 6, floribundus Hiern; Miss Roper's submersus is trichophyllus Chaix; and Mr Brown's 1091 is pseudofluitans Hiern (not of Bab., or Syme, or Newbould). We consider the Erythræa plants distributed are only forms of one species. Maritime Stellaria boreana is a good species and cultivation enhances its claim; we do not know the inland form.

It would be helpful if members would count in the fresh state and record the number of stamens in cases of Batrachium where the stamens may be considered "few." It is perilous to alter labels without careful examination of the plants on the sheet. The complete absorption of small contributions by referees is inexpressibly distressing to distributors. If there be any apparent signs of bias in this report, we can only assure members of our indescribable anxiety to avoid it. May we ask members to search for, and if possible distribute, Saginas—apetala, reuteri, or ciliata—in which the longest pedicels do not exceed twice the length of the capsules.

The thanks of the Club are hereby tendered to Mrs Gregory, Messrs Adamson, Barclay, Barton, Bennett, and Bucknall; Dr Drabble; Messrs Druce, Groves, Hiern, and Jackson; the Revs. E. F. Linton, E. S. Marshall, H. J. Riddelsdell, and W. M. Rogers; Messrs Pugsley, Salmon, and Wheldon, and to the other Club members who have contributed to the Report. Mr Cedric Bucknall is heartily thanked for his most interesting Euphrasias and for the notes accompanying them.

W. H. Pearsall and D. Lumb.

Editors and Distributors for 1916.

Dalton-in-Furness, June 1917.

LIST OF PARCELS RECEIVED.

						No. of cimens.
Bailey, Charles, M.Sc., F.1	z.S	•••				29
Barelay, W		•••		• • •		16
Barton, W. C., M.A						463
Bickham, S. H., <i>F.L.S.</i> , <i>J.</i>	P	•••				98
Britton, C. E		•••				210
Brown, G. C					•••	415
Bucknall, Cedric, Mus. Ba	c	•••		• • •	• • •	33
Burdon, Rev. R. J		•••	• • •	•••		120
Chester, G		•••			• • •	160
Comber, John		•••	•••	• •••		343
Corstorphine, Mr and Mrs	R. H.				•••	83
Creed, R. S						70
Cryer, John		•••		•••		194
Cumming, L., M.A		•••		•••		105
Druce, G. Claridge, M.A.,	<i>J.P.</i>				• • •	594
Jackson, A. Bruce			•••			50
Marshall, Rev. E. S., M.A.	., F.L.S.	• •••		• • • •		150
Melvill, J. Cosmo						46
Pearsall, W. H		•				103
Riddelsdell, Rev. H. J., M	ſ.A. ·	••.	•••			546
Rilstone, F						40
Robinson, F						583
Roper, Miss Ida, F.L.S			•••			179
Travis, W. G				•••		54
Wade, A. E					•••	156
Waterfall, Charles, F.L.S.					•••	267
Webster, Alfred		•••				54
Wheldon, J. A., F.L.S				•••	•••	137
White, J. W., F.L.S.		•••				. 80
Wilson, A., F.L.S., F.R.M.	let.S	•••	•••	•••		75
					_	
		Total,	• • •	••	•••	5453

Thalictrum majus Crantz, var. Kochii (Fr.)? Shore of Elter Water, at 200 ft., Westmorland, 69a, June 24, 1916.—A. Wilson and J. A. Wheldon. Stem hollow, with numerous short glands. The latter occur in var. capillare N. E. Br., to which it may belong.—J. A. Wheldon. "My spm. is only in bud; fruit is essential. Much like Perthshire T. Kochii in general appearance."—Marshall.

Anemone nemorosa L., var.? [173]. Damp hedge-bank, Redhill Watton, Norfolk, 28, Mar. 30 and Apr. 28, 1916. Earlier firs. nearly white, plants larger and paler green. Later firs. larger, petals purple.—F. Robinson. "The not uncommon colour-form, var. rubra Pritzel."—MARSHALL "Var. purpurea DC. is the older name."—DRUCE.

A. ranunculoides L. [179]. Ovington, Apr. 8, 1916.—F. Robinson.

Ranunculus repens L., var. Fallow field near Wroxton, 23, June 20, 1916. One patch, among many of the ordinary form. The present form shows scantier hairiness, more slender habit, smaller firs. and more finely divided ls.—H. J. RIDDELSDELL. "Approaches Mr Shoolbred's cultivated (enlarged) spms. of a plant we found near Dalwhinnie, E. Inverness, in 1911; may be var. prostratus Gaud."—Marshall. "Comes under var. glabratus DC., in my opinion. I have not seen anything like such a glabrate form in Lancs."—Travis. "Approaching var. glabratus DC., in having few hairs, appressed; not spreading as in var. villosus."—Wheldon. "This is what I have been accustomed to call the type—the var. prostratus Gaudin—and is scarcely separable from Mr Shoolbred's plant. The tall coarse upright plant of damp ditches is var. erectus DC. These, of course, approach var. tenuisectus More."—Druce.

R. acris L., var. Boraeanus (Jord.). Ch. Ch. Meadow, Oxford, June 1893. Herr Freyn, whose death deprived us of a monograph on the group, named this.—G. C. DRUCE. "R. Boreanus Jord."—WHELDON.

R. Lingua L., var. Ditch in meadow by R. Thames, near Abingdon, 22, Aug. 3, 1916. These plants (carefully selected from a large mass of ordinary Lingua) show small firs., broad ls., and unusual hairiness. In the only specimen which shows fruit, the remarkable fact comes out that the carpels and beaks have no hair. The cumulative differences, if not a mere sport of the season, constitute a good variety.—H. J. RIDDELSDELL. "A form with appressed hairs on stem, pedicels and sepals. Babington, and Rouy and Foucaud describe the sp. as being either glab. or pubes., but give no special name."—MARSHALL. "In Fl. Berks., 19, I pointed out that the plant from the

above place was the var. hirsutus Wallr. Sched. Pl. Brit. 288. The young carpels of the sp. sent to me have hairs. It may be well to watch if smallness of flowers is correlated with increased hairiness."—DRUCE.

- R. Drouetii F. Schultz. [8]. Aylestone meadows, nr. Leicester, 55, May 27, 1916.—A. E. Wade. "Correct."—Hiern, Groves, Wheldon, Marshall, Riddelsdell.
- R. Drouetii F. Schultz. P. 141. Nr. Ardley, Oxon., May 1916.
 —G. C. Druce. "A rather strong form of Drouetii, I think."—
 MARSHALL. "If kept distinct as by Rouy and Fouc., this is nearer
 R. paucistamineus Tausch. (R. Drouetii Reut. non Schultz)."—
 WHELDON. "R. submersus. Flowers rather large, with numerous
 stamens."—Hiern. "I should like to know the habitat of this. If
 Drouetii, it is a robust form."—Groves. "We understand that
 paucistamineus is a large plant and that Tausch insisted on small
 flowers."—Pearsall and Lumb.
- R. heterophyllus Weber. [6]. Pond between Narborough and Leicester, 55, June 12, 1916.—A. E. Wade. "Yes."—Wheldon. "I agree. A form with rounded leaf-lobes. Hardly the robust plant understood as R. floribundus."—Groves. "R. floribundus Bab. Carpels hispid."—Hiern.
- R. heterophyllus Weber, var. submersus (Hiern). Pond, Lawrence Weston, W. Gloster, 34, June 12, 1916.—Ida M. Roper. "R. trichophyllus Chaix."—Hiern and Wheldon. "I think correctly labelled. To me the firs. are too big, the ls. too distant, and the whole plant on much too large a scale for any form of R. trichophyllus that I have seen."—Groves.
- Ranunculus —... In the R. Ribble, near Preston, S. and W. Lancs., 59 and 60, July 1916. See Rep. 113, 1914. Further spms. from same locality. No floating Is. are produced.—A. Wilson. "Cf. R. Bachii Wirtg. Peduncles scarcely glabrous, somewhat puberulous. Recep. not quite glab. Carpels glab."—Hiern. "This is frequently referred to R. fluitans because of its long and parallel If. segmts., but in other respects it has nothing to do with that species. The stamens often exceed the pistils, the petals are 7 to 9 veined, and the receptacle is hispid. I am satisfied, and I think Mr Wilson is too, that this is the rapid-water form of R. heterophyllus or penicillatus. My plant from the R. Beetha has only one very young fir., but is, I believe, identical with the Ribble plant."—Wheldon. "I think a fluitans form, and if so, would come under Bachii on account of the small firs. and short If.-segments."—Groves.

Ranunculus —. In the R. Beetha, near Milnthorpe, Westmorland, 69a, July 1916. Plant robust, stems 4 to 7 ft. long; firs. large, \(\frac{3}{4}\) to 1 in. diam. when fresh. No floating is produced.—A. Wilson. "R. pseudo-fluitans Bab."—Hiern. "This seems the same as the R. Ribble plant. In both cases the receptacle is hispid and the plant is certainly not a form of R. fluitans Lam. I believe it is R. peltatus var. pseudo-fluitans Syme."—Travis. "R. fluitans."—Groves. "Dumort. Mon. Batrach. describes the receptacle of fluitans as glabrous, but this is not a constant character in our experience."—Eds.

Ranunculus ——? [5]. Groby Pool, Leics., 55, June 10, 1916.

—A. E. Wade. "R. floribundus Bab. Carpels hispid."—Hiern.

"Apparently R. truncatus Koch."—Wheldon. "I should say a weak state of R. peltatus var. truncatus."—Groves.

R. sphærospermus Boiss.? [1091]. R. Stour, Wiston, W. Suffolk, 26, June 11, 1916. Floating Is. entirely absent. Fits description Rep. B.E.C. 7, 1914, except for stamens "carpella superantibus." No spms. in mature fruit were to be found.—G. C. Brown. "These examples agree with the description of f. sphærospermus Hiern."—Wheldon. "The comparative lengths of peduncles and leaves point to pseudo-fluitans rather than to sphærospermus."—Hiern. "The plant I understand as f. sphærospermus of Hiern. It is a very characteristic plant of some of our S.E. county rivers."—Groves. "Is it not remarkable how few of these large forms have mature carpels when distributed?"—Pearsall and Lumb.

Delphinium Ajacis L. [223]. Over-yeared hayfield, Stow Bedon, 28, Aug. 20, 1916.—F. Robinson. "Yes."—Druce.

Papaver Rhoeas L. [74]. Wootton, Berks., June 1916. A common form with base of petal black.—G. C. DRUCE.

Capnoides solida Moench. Besilsleigh, Berks., May 1916. A relic of Speaker Lenthall's garden.—G. C. Druce.

Fumaria officinalis L., var. elegans Pugsley. Potato field, Chilworth, Surrey, 17, Aug. 1916.—J. Comber. "Correctly named."—Pugsley.

Radicula amphibia × palustris. [1482]. Origin, by R. Thames above Kew. Hort. West Barnes, Merton, Surrey, 1916. Spms. sent include early and late-summer flowering shoots, exhibiting marked differences. Sterile, as usual.—C. E. Britton. "If so, the amphibia is dominant."—Bennett.

R. palustris Moench, var. pinnatifida (Tausch). [177]. Salthouse, 27, July 9, 1914.—F. Robinson. "In this area we find the

few stiff spreading bristles on the auricles a most helpful character."—Pearsall and Lumb.

Barbarea vulgaris Br., var. sylvestris Fr. Cult. field between Isleworth and Twickenham, Middlesex, May 30, 1916.—A B. Jackson and A. J. Wilmott.

B. arcuata Reichb. Introduced with grass seed, Walton, S. Lancs., 59, June 23, 1916. Cut down annually with the grass, but roots persist and send up new stems.—J. A. Wheldon. "B. vulgaris, var. arcuata Fries."—Barton and Jackson.

Arabis hirsuta Scop., var. glabrata Syme. Origin Sussex, 1913, C. E. Salmon. Cult. Ledbury, 36, May 1916.—S. H. BICKHAM. "Does not agree exactly with descriptions, for the stem has a considerable number of hairs, espy. below."—RIDDELSDELL. "Some were exceedingly hairy."—Pearsall and Lumb.

A. ciliata Br. Seed Aug. 14, 1913, from sandy coast of Dog's Bay, Galway, West. Cult. Epsom, June 1916. Original plants were 3–7 in. high, with rosette ls. $\frac{3}{4}$ in. Cult. plants grew to 14 in. high, with rosette ls. $2\frac{1}{2}$ in.—W. C. Barton. "On the basis of these cult. spms. it is difficult to see how A. ciliata Br. and A. hirsuta var. glabrata Syme, are separated by tangible characters. I should be glad to see a discussion by members possessing materials from native habitats."—Travis. "The 'tangible characters' are ripe pods and seeds."—Pearsall and Lumb.

A. petraea Lam., var. grandifolia Druce. Ben Laoigh, Perth, Aug. 1916. This name is used because the description of the var. ambigua Fries Mant. iii., 77, does not describe this plant. See Rep. B.E.C. 1914, 116. In this plant the ls. and firs. are larger than those of the type.—G. C. Druce.

Cardamine pratensis L., var. dentata (Schultes). [1083]. Ditch, Fordham, N. Essex, 19, May 4, 1916. Agrees well with descr. J. B. 1880, p. 202, "long rad. ls. not sprdg. as in pratensis, but erect or ascending." None of the plants, however, has "terminal leaflet generally cuneate."—G. C. Brown. "Not dentata. See Lindman, Bot. Not. 1914, 276; pratensis firs. 10 mm. wide, lilac; dentata firs. 15 mm. white."—Druce.

Erophila —. [91]. Nearest E. pyrenaica Jord. Gravelly soil, "The Moors," Alphamstone, N. Essex, 19, May 2, 1916.—G. C. Brown. "Agrees fairly well with descr. of E. pyrenaica, but the ls. are not 'entire' as described in the key—Rep. B.E.C. Does Jordan describe them as entire? He says it is near E. subintegra, which has sometimes toothed ls."—Wheldon.

- Erophila —...... [178]. Sandy soil, Hockham, 28, Apr. 26, 1914.—. F. Robinson.
- Erophila —— ? [41212]. Hethe, Oxon., Apr. 1916.—G. C. DRUCE.
- Erophila ——? [41214]. Islip, Oxon., Apr. 1916.—G. C. Druce. "Under E. praecox Stev.; perhaps type, but not E. brachycarpa Jord., which has shorter fruits and pedicels."—WHELDON.
- E. leptophylla Fouc. et Rouy. (D. leptophylla Jord.). Origin, St. Ippoletts (J. E. Little). Cult. Walton, S. Lancs., June 1915. The long petals, slender stems. narrow ls., and mixture of simple and bifid hairs—with rarity of trifid ones—which are distinctive of E. leptophylla, seem to be well shown in these examples.—J. A. Wheldon.
- Erophila —. Bare roadside, Kineton Thorns, 33, May 24, 1916. Hairs mostly bifid, others simple or trifid.—H. J. RIDDELS-DELL. "E. majuscula Jord."—WHELDON.
- E. praecox? Kirby Hall, 32, April 24, 1916.—G. CHESTER. "I should leave this under E. verna (vulgaris DC.)."—MARSHALL. "E. stenocarpa Jord."—WHELDON.
- Cochlearia danica L. Small vernal form. Walton, S. Lancs., 59. Leaves 1/1/16, flowers 1/4/16, fruit 20/5/16. Mr Marshall states that in W. Somerset (Rep. 1912, 230) this species flowered as late as Sep. 30. This is a small form (the specimens sent being the largest procurable) which I can vouch has never flowered after April for the past 24 years, although it has grown in all kinds of situations and facing all points of the compass. Have we more than one race of the plant?—J. A. Wheldon. "C. danica L., b. praecox Le Jolis. Plant very short, with slightly pink-tinged firs. Abundant at Cherburg."—Bennett.
- Sisymbrium pannonicum (Jacq.). [205]. Heathland in gorse, Scarning, 28, July 20, 1916.—F. ROBINSON. "Yes."—RIDDELSDELL. "S. altissimum L."—DRUCE.
- S. orientale L. (S. Columnae Jacq.). Waste ground, Brislington, N. Somerset, 6, June 16, 1916.—IDA M. ROPER. "Yes."—RIDDELS-DELL.
- S. orientale L. Refuse tip, Meols, The Wirral, 58, May 20, 1916.—C. WATERFALL.
- S. officinale L., var. leiocarpon DC. [232]. Waste ground and roadsides, Freshwater, Wight, 10, Aug. 29, 1916. Not recorded for

Wight in *Fl. Hants.*, 1904. Differs from type by more bushy growth, in addition to the characters mentioned in *Rep. B.E.C.* 1913, 451.—W. C. Barton.

Bursa pastoris Weber. Middleham and Leyburn Shawl, Yoredale, W. Yorks., June 9 and 11, 1916.—C. WATERFALL. "Capsella Bursa-pastoris var. stenocarpa-coronopifolia Mott. To this same form must be referred the dwarf starved plants from cindery paths at Leyburn, sent by the same collector."—Britton.

Capsella Bursa-pastoris Medic., var. brachycarpa Mott? [1084]. Lane, Boxted, N. Essex, 19, May 21, 1916.—G. C. Brown. "Tall drawn-up-looking plants, probably growing among others at the foot of a wall. Correctly named."—Britton.

Capsella sp. Rectory garden, Wigginton, Oxon. 2 Sepr. 1916. (Rep. 1915, 319). More of this is sent this year—now taken from the cultivated ground. It is worth re-emphasising that, although a pest seems frequently to infect the plant, its peculiarities are not due to infection. This is abundantly clear when clean spms. are examined. It is a late-flowering form.—H. J. RIDDELSDELL. "After examining the 1916 plants I am still of opinion that such striking features are entirely due to the fact that the plants are Cystopus-infested. Not one of the five plants sent me is free from the fungus. As to the name this variety should bear, with the more developed plants before me, it is clearly seen that Horwood's view that this is var. rubellæformis is quite untenable. The silicules are large, deeply notched, and the average shape is obcordate-obovate, with, of course, the lateral margins convex; whereas in rubellæformis the notch is less deep and the lateral margins concave. Before expressing a final opinion as to the status of this form I would like to see examples quite free from any parasitic growth. Meanwhile I refer this plant to Capsella bifida Hobkirk, var. macrocarpa Hobkirk. I have seen the spm. on which this var. is founded. Hobkirk's name must replace Mott's varietal name of macrophylla, as these two forms are identical. Very closely related to Hobkirk's variety, and perhaps identical with it, is C. Bursa-pastoris var. macrocarpa of Haussknecht and of Albert, but not var. macrocarpa of Heldreich, which is allied to Mott's vars. densifolia and brachycarpa."—Britton.

C. gracilis Grén. Garden ground, Walton, S. Lancs., 59, Sept. 6, 1916. I think this is not a hybrid, but rather that the fruits do not set properly on account of wet and dull weather at the time of flowering. Sometimes half the fruits on a raceme are abortive and the later half normal and fertile. Occasionally a silicule here and there expands and produces seed when all the rest are abortive.—J. A. Wheldon. "This is either a state exhibiting barrenness from

unknown causes, or a hybrid lacking characters which might throw light on its origin. I do not think it can be referred to C. gracilis Grén., usually a much more robust plant, very doubtfully occurring in Britain. I have not seen any sterile or semi-sterile native forms at all like Continental C. gracilis—in which the aborted silicule is usually shortly obcordate, or roundish-triangular and often purplish-red—a character derived from C. rubella Reut., if we accept the view (not shared by some Continental botanists, notably Jordan) that gracilis represents C. Bursa-pastoris × rubella. Another sterile form making vigorous growth occurs in Surrey and is identical with C. Bursa-pastoris, var. hebetata Auerswald."—Britton. "Many silicules in this gathering suggested bifida."—Pearsall and Lumb.

Lepidium ——? [216]. Station yard, Watton, 28, Aug. 3, 1916. F. ROBINSON. "I should call this L. densiflorum Schrad., rather than L. virginicum."—SALMON.

L. latifolium L. Near Lavant mouth, Appledram, Chichester, Aug. 18, 1916.—R. J. Burdon.

Thlaspi perfoliatum L. Old wall, Kineton, 33, May 29, 1916. The same day it was rediscovered at Kineton Thorns. Has been found in 3 or 4 new localities in E. Glos. this vr.—H. J. RIDDELSDELL.

Reseda alba L. Near Poundon, Bucks, Aug. 1916.—G. C. DRUCE.

R. lutea L., var. pulchella J. Muell. Waste ground, Fazackerly, S. Lancs., 59, Sept. 3, 1916. The very papillose fruit appears to indicate this var. rather than var. Lecoqui J. Muell.—J. A. Wheldon.

Helianthemum canum Baumg. On limestone in railway cutting S. of Kents Bank, N. Lancs, 69 b. New station a mile from Humphrey Hd., where long recorded. June 15, 1916. W. H. Pearsall. "Yes, nice examples—not var. vineale Pers."—Salmon.

Viola Riviniana Reichb. × sylvestris. Lyncomb Hill, Sandford, N. Somerset, 6, May 17 and Aug. 22, 1916. Petals broad, veining indistinct, scarcely branched, spur purple.—Ida M. Roper. "Possibly, but I am doubtful. Of the two firs sent me, one would pass as ordinary V. Riviniana; the other has narrower petals and less developed calycine apps., which may be due only to late gathering. The ls. have no trace of V. sylvestris."—E. S. Gregory.

V. Riviniana Reichb., var. diversa Greg. [1082]. Fordham Heath, N. Essex, 19, May 4, 1916, and July 13, 1916. Upper petals very strongly reflexed, lilac-blue; spur greenish, furrowed. Ls. dark

purp.-grn.; veins, petioles, and stem purple.—G. C. Brown. "Capital examples of var. diversa."—E. S. Gregory.

V. odorata L., var. imberbis Leight. Hilly pasture, Compton Dando, N. Somerset, 6, Apr. 5 and June 17, 1916. A small form with dark purple firs. having rounded petals, the lateral ones not bearded, perfume faint or lacking.—IDA M. ROPER. "In British Violets I have reduced Leighton's var. to a form. Mr P. M. Hall writes (Apr. 29, 1914):—'I paid particular attention to f. imberbis. I observed that each var. of V. odorata (i.e. type, praecox, dumetorum, and subcarnea) had a corresponding imberbis form.' I have also an imberbis form of V. hirta."—E. S. Gregory.

V. hirta × odorata. [1081]. Banks and roadsides, Tilbury, N. Essex, 19, Apr. 21, 1916. Flr. bluish-violet (not deep in colr., but too dark for hirta). Spur same colr. or a little lighter. Early ls. shining above.—G. C. Brown. "Viola hirta > × odorata. Hairs on petioles more spreading than deflexed; bracts, in both spms. received, very near the base of peduncle."—E. S. Gregory.

Dr Drabble will only be responsible for the names of pansies he has himself seen.

V. alpestris Jord. With V. variata Jord., var. sulphurea (Drab.), in potato-field of deep peat—no stones—20 ft. above sea-level, near Striber's Moss, N. Lancs., 69b, May 20, 1916. Dr E. Drabble named fresh spms. of each.—W. H. Pearsall.

V. variata Jord., var. sulphurea Drab. Growing with V. alpestris Jord., in peat, near Striber's Moss, N. Lancs., 69b, May 20, 1916.—W. H. PEARSALL. "Yes."—DRABBLE.

V. Lloydii Jord. Peaty fields, Simmonswood, S. Lancs., 59, July 16, 1916.—W. G. Travis. "Yes, Lloydii Jord., which varies rather considerably."—Drabble.

V. arvensis Murray, var. agrestis (Jord.). Cleared wood, Failand, nr. Bristol, N. Somerset, 6, July 7, 1916. Upper and lat. petals mauve.—Ida M. Roper. "Yes, agrestis Jord."—Drabble.

V. ruralis Jord. On shallow uncult. soil over limestone, Kent's Bank, 69b, June 17, 1916.—W. H. Pearsall. "Yes."—Drabble.

Cerastium vulgatum L., var. fontanum (Baumg.). In plenty, some miles above Bointon-on-the-Water, by R. Windrush, 33, June 22, 1916. Whole plant large, firs. v. large, petals up to 2ce sepals. A very distinct-looking form, but clearly not var. holosteoides.—H. J.

RIDDELSDELL. "I think not; var. fontanum is alpine, or boreal."—MARSHALL. "Not this variety, which is a plant of mountainous regions."—Salmon. "I should hesitate to name it so; is it not C. vulgatum forma macropetalum? See Rep. 330, 1915."—DRUCE.

C. tomentosum L. Garden escape, by G.W.Ry., Maidenhead, May 9, 1916.—H. J. RIDDELSDELL.

Stellaria Boraeana Jord. Sandy banks, Formby, S. Lancs., 59, April 30, 1916.—W. G. Travis.

Arenaria balearica L. Buttresses of bridge, near Bromborough, The Wirral, Cheshire, May 6, 1916.—C. WATERFALL. "Books have 'sepals 0-nvd.'; these are 3-nvd."—PEARSALL and LUMB. "Nerveless sepals and entire petals are distinguishing features which balearica should possess."—DRUCE.

A. verna L. Site of old lead works, Leyburn Shawl, Yoredale, W. Yorks, June 11, 1916.—C. WATERFALL.

Sagina apetala Ard. [245]. Worlington, W. Suffolk, 26, on and below a wall, June 12, 1916. Peds. and seps. glandular, stem pubes. eglandular.—W. C. Barton. "Yes, the typical form with ciliate ls., and glandular stems and pedicels, var. barbata Fenzl. Have we in Britain a form of S. apetala with ls. glabrous and pedicels and sepals non-glandular, wh. according to Rouy = var. imberbis Fenzl?"—Travis. "Yes, var. barbata Fenzl."—Wheldon. "Apparently var. barbata Fenzl, which seems as widely distributed in England as the more glabrous var. imberbis Fenzl."—Salmon. "We have the glabrous form in Britain, but it is the less frequent."—Druce.

Spergularia rupestris Lebel, var. glabrescens (Lebel). Rocks and banks by the sea, near South Shore, Holyhead, Anglesea, 49, Sept. 1916.—W. G. Travis. "Apparently right."—Riddelsdell. "Less glandular on is than in normal rupestris, but I should hesitate to name it glabrescens. I have a plant from Ballantrae which is wholly glab., except for the inflorescence. It is labelled rupestris, but I think it deserves Lebel's var. name."—Salmon. "I agree with Salmon."—Druce.

Hypericum Desetangsii Lamotte. Cult. Ledbury, 36. (J. B. 1913, 317).—S. H. BICKHAM.

Malva moschata L., var. heterophylla Lej. Bladon, Oxford, July 1914.—G. C. Druce.

Malva —. Waste ground, Ledbury, Hereford, 36, July 23, 1916.—S. H. BICKHAM.

M. verticillata L. (?). On rubbish tipped near the Frome at East-ville, Bristol, July 1916.—J. W. White. "Glabrous-fruited parviflora."—Eds., Riddelsdell, Salmon. "Not verticillata; pedicels too long. I should like to see flowers before naming."—BAKER.

Tilia tomentosa Moench. Roadside, Doynton, W. Gloster, 34, Aug. 15, 1916. Flowers nearly a month later than the common Lime.—Ida M. Roper. "Yes; but why distributed?"—Jackson.

T. cordata Mill. [1086]. Possibly native in hedges near Lindsey, W. Suffolk, 26, May 28, 1916.—G. C. Brown. "Is T. platyphyllos Scop."—Travis. "Is this cordata? The ls. are very considerably hairy beneath, and thin and membranous in texture. No fruit is sent, but I should suspect T. europea L."—RIDDELSDELL. "Foliage immature and therefore not satisfactory for determination, but it is probably T. platyphyllos. The young branches are hairy and the ls. are pubescent with long hairs on the lower surface. In T. cordata the ls. are bluish or glaucous green on the lower surface and glabrous, with the exception of dense orange brown axial tufts at the base of the midrib and at the junction of the primary and secondary nerves. T. cordata is probably not native in Suffolk."—Jackson. "Bab. connects stellate hairs with cordata; Hayward connected them with europea. Prof. Henry and Mr Jackson attach no importance to them."—Pearsall and Lumb.

Geranium nodosum L. In the shrubbery of Begbrook House, nr. Frenchay, Gloucester, June 28, 1916.—J. W. White.

- G. Robertianum L., var. See Report, 406, 1916. Berry Head, S. Devon, June 1916.—G. C. DRUCE.
- G. modestum Jord. Lanesides near Padstow, May 25. 1916. (See Davey's Fl. of Cornwall).—J. W. White. "A remarkably even gathering."—Eds. "G. modestum. Similar spec. agreed to by Dr Clement Reid."—Druce.

Acer campestre L., forma incisifolia Melv. See Rep. 406, 1916. Wood Perry, Oxon., Sep. 1916.—G. C. Druce. "The fruits bear a few hairs and many bases from which hairs have been separated. Mr Barton's 1914 spms. do not show these bases."—Pearsall and Lumb.

Genista tinctoria L. [209]. Rough meadow, Bressingham, 27, July 29, 1916.—A. R. Horwood and F. Robinson.

Ulex minor Roth, var. longispinosus (R. & F.) Druce. Bedwyn Brailes, N. Wilts, Sep. 1915. See Rep. 1915, 192.—G. C. Druce.

Melilotus arvensis Wallr. [246]. Side of recently constructed road, Totland Bay, Wight, 10, Aug. 25, 1916. With one normal plant. Doubtless a monstrosity; to what is the abnormal growth of the pods due?—W. C. Barton. "Not arvensis; fruits are hairy. It is M. officinalis, var. unquiculata Seringe."—Druce.

Trifolium ochroleucon Huds. Rough pasture, Bayfordbury, Hertford, July 22 and 23, 1916.—A. B. JACKSON.

- T. maritimum Huds. Bank near Lavant Sluice, Appledram, Chichester, June 16, 1916.—R. J. Burdon.
- T. striatum L. Burton, The Wirral, Cheshire, June 24, 1916.—C. WATERFALL.
- T. striatum L., var. erectum Leight. [194]. Felmingham, 27, June 19, 1916.—F. Robinson.
- T. repens, var. Townsendii Bab. Cult. Ledbury, 36, July 1916.— S. H. BICKHAM.
- T. dubium Sibth. [1601]. Fallow fields, Kingston Vale, Surrey, June 21, 1916.—C. E. Britton.

Lotus uliginosus Schkuhr, var. glabriusculus (Bab.). [235]. Freshwater Gate Marsh, Wight, 10, Sept. 16, 1916. Cf. Rep. B.E.C. 1914, 136. Further study of this plant inclines me to think it more than a form due to situation. It was in great abundance on the marsh and constant in character. A mile away on wet ground in Freshwater Marsh the hairy form (var. villosus) was growing, and there I could not find the less hairy plant. Not mentioned in Fl. Hants., 1904.—W. C. Barton. "Yes."—Salmon.

Vicia angustifolia L., var. segetalis Koch. Sandhills, Crosby, S. Lancs., 59, July 1916.—W. G. Travis.

- V. lathyroides L. [184]. Dry pasture, Thetford, 27.—F. Robinson.
- Lathyrus ——. [214]. Cultivated, origin w. pl. Ashill, 28, Aug. 1, 1916.—F. Robinson.
 - L. palustris L. Wicken Fen, Aug. 4, 1916.—Alfred Webster.
- L. Aphaca L. Waste ground, Bradford, 64. Casual, very rare in W. Riding. Altitude 300 ft, July 1916.—J. Cryer.

L. montanus Bernh. Tiptree Heath, N. Essex, 19, May 14, 1916.—G. C. Brown.

Prunus avium L. [180]. Tall tree, Rocklands, 28, Apr. 27, 1916.—F. Robinson.

P. Cerasus L. [183]. Carbrooke, 28, May 4, 1916.—F. Robinson.

Spiraea salicifolia L. [213]. Ditch with S. Ulmaria L., Holt, 27, July 30, 1916.—A. R. Horwood and F. Robinson.

Rubus idaeus L., var. obtusifolius (Willd.). Cothill, Berks., July 1916. This is not a variety in the strict sense, but a barren teratological condition with open carpels. It readily spreads by means of suckers.—G. C. Druce.

- R. dumetorum (?) × dasyphyllus (?). [1092]. Hedge, Ardleigh, N. Essex, 19, July 18, 1916. Pets. pale pink, narrow seps. reflexed in fir., then rising and ultimately clasping. I sent spms. to Rev. W. M. Rogers and Rev. H. J. Riddelsdell with the note, "I think a leucostachys hybrid, with peculiar toothing recalling that of R. dasyphyllus." Rev. W. M. R. says, "With these before me and Mr Brown's note I cannot get beyond the suggestion? R. dumetorum × dasyphyllus?" Rev. H. J. R. says, "Barrenness, rising sepals, fasciculation of branches, all make for hybridity; but I don't see leucostachys in it."—G. C. Brown.
- R. foliosus Wh. and N. [1094]. Hedge, Stanway, N. Essex, 19, Aug. 2, 1916. Testibus Rogers and Riddelsdell.—G. C. Brown.
- R. echinatus Lindley. [1093]. Fayer Breton Heath, N. Essex, 19, July 23, 1916. Testibus Rogers and Riddelsdell.—G. C. Brown.
- R. rhamnifolius (Wh. and N.), sub-sp. Bakeri (Lees). Heath betw. Corfe and Wareham, 9, Aug. 17, 1916.—L. Cumming. "Not quite typical, but a record for Dorset."—Rogers.
- R. hirtifolius Muell. and Wirtg., var. mollissimus Rogers. Lane to Rempston Heath betw. Corfe and Studland, 9, Aug. 17, 1916.—L. CUMMING. "Good type mollissimus."—Rogers.
- R. Boraeanus Genev., var. flor. alb. Corfe Common and East Common, 9, Aug. 9, 1916. Record for Dorset.—L. Cumming. "Differs from type conspicuously only in colour of firs., terminal leaflet short stalked and rather short stalked central fir. of panicle cymes. In most details agrees with descr. in Handbook of British Rubi."—Rogers.

- R. Borreri Bell Salt. Corfe Common and Rempston Heath, 9, Aug. 14 and 17, 1916.—L. Cumming.
- R. radula Weihe, between type and var. echinatoides Rogers. Wood, Lemington, 33, Aug. 11, 1916. I suggested "?echinatoides with few glands and weakly armed," and Mr Rogers says, "I don't see any of your sheets quite sufficiently strongly marked to justify positive acceptance as my var. echinatoides." He called special attention to the "very hairy to almost subglabrous" stem. Focke accepts the var. (1914) and in doing so describes the stem as glabrous, as Mr Rogers points out. Type radula is already recorded for 33.—H. J. RIDDELSDELL.
- R. radula Weihe, sub-sp. anglicanus (Rogers). Heath by road, Corfe to Wareham, 9, Aug. 8, 1916.—L. Cumming.
- R. melanodermis Focke. Heath by road, Corfe to Wareham, 9, Aug. 8, 1916.—L. Cumming.
- Rubus fuscus Wh. and N. Wood on Wigginton Heath, 23, Aug. 19, 1916. Mr Rogers agrees. Ls. more often 3-nate than 4—5-nate. —H. J. RIDDELSDELL.
- R. fuscus Wh. and N., var. nutans Rogers. By Arne Churchyard, 9, Aug. 21, 1916.—L. Cumming.
- R. Durotrigum R. P. Murr. Fide Rogers. By Alfred's Tower, Stourton, S. Wilts, 8, Aug. 13, 1915. N.C.R.—IDA M. ROPER.
- R. flaccidifolius (P. J. Muell.). Weekley Hall Woods, 32, Aug. 18, 1916.—G. Chester.
- R. dumetorum, var. raduliformis Ley. Alkerton, 23, July 14, 1916. Mr Rogers agrees and says it makes a N.C.R. Two rather different forms were found growing close together, one with larger, broader and slightly deeper pink petals.—H. J. RIDDELSDELL.
- Rubus —. Hedge of a copse near midway house between Corfe and Swanage, 9, Aug. 19, 1916.—L. Cumming. "I can give no name. Ls. remarkably like those of Leyanus, but neither stem nor panicle right for that. I suppose it may have arisen from a crossing of my R. mollissimus with my MSS. var. c. of R. corylifolius (which is frequent here as in the Cotswolds of E. Glos.), but then I should expect a very different panicle. On the whole probably another form or variety of R. corylifolius—but what name?"—Rogers.
- R. corylifolius Sm., var. sublustris (Lees). Stoborough Common, nr. Wareham, 9, Aug. 11, 1916.—L. Cumming.

Dryas octopetala L. Arncliffe Clouder, Arncliffe. Great Scar Limestone, altitude 1250 ft., 64, June 26, 1916.—J. CRYER.

Potentilla ——? Wapping Wharf, Bristol Harbour, N. Somerset, 6, July 20, 1916.—Ida M. Roper. "P. intermedia."—Pearsall and Lithe

Potentilla intermedia L. Dundee, Forfar, Aug. 1916.—G. C. DRUCE. "Mr Druce's spm. has small petals, but the leaflets are much less deeply cut than in my Mildenhall spms."—Barton.

P. erecta Hampe \times reptans. Rough pasture, Nailsea, N. Somerset, 6, Aug. 31, 1916.—Ida M. Roper. "Is not this P. procumbens \times reptans?"—MARSHALL.

P. norvegica L. Sandy moist ground, bordering Hawley Lake, N. Hants, 12, Sept. 1916.—J. COMBER.

P. norvegica L. Old mud bank, near Ball's Knolls, Chester, 58, July 19, 1916.—C. WATERFALL.

Alchemilla conjuncta Bab. [4356]. Originally from Glen Sannox, Arran, 100, in 1871. Cult. West Monkton, June 22, 1916. Rep. 1913, 323.—E. S. MARSHALL.

Agrimonia odorata Mill. [332]. Damp shady heath-land, Thompson, 28, Sep. 17, 1916.—F. Robinson. "No doubt this species, though the furrows on the fruit are well marked; in that respect the spms. are intermediate between odorata and Eupatoria."—RIDDELSDELL. "Correctly named. Note especially the fruiting calyx with ribs obsolete below middle, subfoliar glands well developed, hairs on ls. and stem silkier and longer than in Eupatoria. See J. B. 1915, 337."—Jackson and Barton.

Rosa insignis Déség. et Rip. [1491]. Leatherhead Downs, Surrey, Aug. 8, 1915.—C. E. Britton. "I know R. insignis Déség. et Rip. mainly from Major Wolley-Dod's description. From that the present spms. differ in several points, important in the eyes of the makers of micro-species. The ls. are not large, but only medium. The lfts., which should be ellip., vary from broadly ellip. to broadly or narrowly obov. The pets. should be more glandr. than in R. lutetiana Lem. but are not so. The fruit, which should be ellipsoid, large and long, narrowed at both ends, is distinctly obovoid in the primary, though, where there is more than one fruit, the secondary appear to be oblong. Whether they would develop into a size larger than in R. lutetiana, and whether their seps. would become spreading, I cannot tell from the spms. In the Flore de la Chaine Jurassique

Grenier has a variety of his *R. canina* L, which he calls v. insignis, and identifies with *R. insignis* Déség. He separates it from his *R. canina* L. by its pets. glab. or pubes., scarcely glandr., its lfts. oval-rounded and its fruit large, ovoid elongate. His description differs from that of Major Wolley-Dod, and does not accord with Mr Britton's spms. I am quite content to name these *R. canina* L. of the group dumalis Bechst., but I should not object to *R. canina* L. of group transitoria Crép."—Barclay. "I think *R. insignis* Déség. et Rip., and certainly one of the Transitoriae group. It is an excellent example of what a specimen should be."—Wolley-Dod.

R. subcristata Baker. [1756]. Headley, Surrey, Sept. 17, 1916. —C. E. Britton. "Yes. I think this really a variation of R. glauca Vill. of the group subcristata Baker."—Barclay. "Correct, a rare species in Surrey."—Wolley-Dod.

Crataegus Oxyacantha L. Between Wigginton and S. Newington, Oxford, Oct. 3, 1916. Ls. remarkably little cut and rather large fr.—H. J. RIDDELSDELL. "This has two styles on the oval-globose fr., and is what I understand by Thuillier's oxyacanthoides."—Lees. "C. oxyacanthoides Thuill., forma. Although some authors make this the Linnean Oxyacantha, not one of several sheets in his Herbarium labelled Oxyacantha is Thuillier's plant."—Druce.

C. monogyna Jacq., var. leptophylla Druce. Yardley Gobion, North Hants, May 1916. To supplement frtg. spms. sent to the Club (Rep. B.E.C. 1915, 346) named heterophylla. Unfortunately these have no expanded firs.; these, if possible, will be sent next year. A difficulty arises about the name, as Flugge has already described a plant C. heterophylla, which is the plant I alluded to as an allied form growing in the Oxford Parks—a distinct species (see Rep. 1915, 196), but with leaf-outline much like these.—G. C. Druce.

C. monogyna × oxyacanthoides. [1561]. Hedge near N. Cheam, Surrey, May 19 and Aug. 24, 1916. Flwg. and frtg. spms. from one bush. The following characters were exhibited by the flwg. examples:
—Strong unpleasant odour; firs. 15 mm. diam.; calyx-tube glab., rugose; seps. triangular, recurved; petals roundish, irreg.-dentate, concave; styles variable in no., usually one in each fir., but some corymbs with 50 p.c. of the firs. 2-styled; styles slightly hairy at base. Ls. dark green above, lighter below, very variable in form; from oval-obl. entire, except at the toothed apex, to 3-lobed towards apex, entire margins and tapering to base, and others 5-lobed, irreg-serrate, except toward base. Veins in last diverge outwards, in the others converge.—C. E. Britton. "Yes."—Druce.

- C. Oxyacantha L. [226]. Hedgerow, Mildenhall, W. Suffolk, 26, June 9, 1916. Calyx and ped. glabrous. Styles one or two.—W. C. Barton. "Although nearest to C. oxyacanthoides Thuill., yet the ls. and their texture suggest the presence of monogyna, as is evidenced also in the no. of styles."—Druce.
- Saxifraga Sternbergii Willd. [3649]. Root (1911) from Brandon Mt., S. Kerry. Cult. West Monkton, June 10, 1916. Agrees well with Sternberg's figure. Ls. bright green, glabrescent. Firs. much later than S. rosacea.—E. S. Marshall.
- S. rosacea Moench (decipiens Ehrh.). [4031]. Root from Clare Id., W. Mayo (R. L. Praeger). Cult. West Monkton, May 16, 1916. Though not precisely identical with S. palmata Sm. from Carnarvon, it is evidently conspecific with that and with S. decipiens Ehrh.— E. S. Marshall.
- S. hypnoides L. [4033]. Originally from W. Ireland limestone (Praeger). Cult. West Monkton. Much stouter and larger than spms. from Cheddar growing in same border. Axillary buds few, small, or absent, May 16, 1916.—E. S. MARSHALL.
- Tillaea muscosa L. Near Sandringham, Norfolk, 26, Aug. 8, 1916. Also at Roydon Common, Rising Castle, Heacham and Snettisham.—G. Chester.
- T. muscosa L. [212]. Sandy track, East Wretham, 28, July 31, 1916.—A. R. Horwood and F. Robinson.
- Sedum rupestre L. [197]. Felmingham, 27, June 19, 1916.— F. Robinson.
- S. reflexum L. [218]. Hedgebank, Rockland St. Peter, 28, Aug. 4, 1916.—F. Robinson.
- S. dasyphyllum L. Old walls, Tanfield, 65, July 15, 1916.— J. CRYER.
- S. dasyphyllum L. Walls near Wensley, Yoredale, W. Yorks., June 11, 1916.—C. WATERFALL.
- Drosera anglica × rotundifolia (D. obovata Mert. and Koch). [4244]. With parents, at 1200 ft., bogs N.-W. of Loch Laggan, W. Inverness, 97, July 31, 1916.—E. S. MARSHALL.
- Callitriche obtusangula Le Gall. [223]. Mildenhall, W. Suffolk, 26, June 13, 1916.—W. C. Barton. "Yes."—Bennett.

Peplis Portula L. [219]. Wet mud in pond on golf links, Llandrindod Wells, Aug. 15, 1916. This is a mile from the localities mentioned below. In ponds and ditches on this side of the hill I could find nothing but plants similar to these.—W. C. Barton.

P. Portula L., var. longidentata Boiss. and Reut. [220a]. Drying mud of pond and ditch in a wood, alt. 800 ft. [220b]. Dry mud in ditch on open hillside, alt. 1000 ft., Llandrindod Wells, Radnor, 43, Aug. 15, 1916. It should be noted that 220b was growing in a situation quite as exposed as that of 219, and on drier mud, so the development of the calvx can be scarcely due to situation, and that in no place was there any admixture of forms.—W. C. Barton. "This I put under var. dentata (see Rep. B.E.C. 1911, 20), which has the calyx teeth about 1 mm. long. It forms an interesting passage, I think, to the extreme western and southern form var. longidentata J. Gay, Notes sur Endress., 38, issued as a species by Boiss. and Reut. in Pl. Hisp. Exsicc. These agree with Cornish examples which I name var. dentata, and have slightly longer calyx teeth than those of Mr Pearsall's spm. from Poaka Beck. (See Rep. 1913, 469). In longidentata—which I have seen from the continent—the calyx-teeth are nearly 3 mm. long. Rouy and Camus, Fl. de Fr., vii. 166, speak of orange petals, sessile firs., and herbaceous bracteoles."—Druce.

Epilobium —. [215]. Garden weed, Watton, 28, Aug. 3, 1916.—F. Robinson. "A very hairy state of E. parviflorum Sch.; the forma aprica of Haussknecht."—Marshall. "E. parviflorum."—Wheldon.

E. obscurum Schreb. Damp wood, Lemington, 33, Aug. 11, 1916. The intermediate E. montanum × obscurum was also found there, with E. roseum, E. angustifolium, and E. montanum.—H. J. RIDDELS-DELL. "Yes."—MARSHALL.

E. obscurum Schreb. × parviflorum Schreb. Swamp nr. Hambledon, Surrey, 17, Aug. 1916.—J. Comber. "Right."—MARSHALL.

E. roseum Schreb. [330]. Ashill, 28, Sept. 7, 1916.—F. Robinson. "Yes."—Marshall.

E. lanceolatum Seb. and Maur. [203]. Rough pasture, Watton, 28, July 9, 1916.—F. Robinson. "E. montanum L."—Marshall, Wheldon, Druce, and Riddelsdell.

Bupleurum rotundifolium L. Corn-field, Almondsbury, W. Gloster, 34, July 11, 1916.—Ida M. Roper.

B. tenuissimum L. Bank betw. saltpans, Newtown, I. of Wight, 10, Aug. 7, 1916.—W. C. Barton.

Helosciadium nodiflorum Koch. Binsey Common, Oxford, Aug. 4, 1916. A small form growing with presumptive H. repens Koch, and apparently hybridising with it. It prefers wetter ground, H. repens drier. I am growing in my garden Binsey C. plants and repens from Port Meadow. The former are untouched by slugs and flourish greatly; the latter have to be carefully protected, otherwise every lf. is bitten off.—H. J. RIDDELSDELL.

H. nodiflorum Koch, f. ochreatum (DC.). Hillside stream, at 630 ft., amid thick vegetation, Wigginton, Oxon., Aug. 8, 1916. This gathering more adequately fulfils the requirements of DC.'s ochreatum than any other with which I am acquainted—though even this is not perfect. The umbels are consistently short-stalked, and there is often an invol. to the umbel. The surrounding vegetation accounts for the very lax drawn-out habit, which is not that of DC.'s plant; also for the fact that the rooting character is not strongly marked.—H. J. RIDDELSDELL.

H. repens × nodiflorum? Binsey Common, Oxford, July 29 and Aug. 4, 1916. The presence of the putative parents suggested tentatively this new hybrid. A coarser reddish stem frequently points to the influence of nodiflorum even where the umbel is that of repens; the leaflets are usually fairly intermediate; the peduncles, though often intermediate, vary greatly in length; the involucre of the umbel is very variable, much more so than in the repens of Port Meadow, near by. H. nodiflorum occurs in standing water, but H. repens prefers ground occasionally flooded.—H. J. RIDDELSDELL.

Helosciadium repens Koch. Port Meadow, Oxford, Aug. 4, 1916, and Binsey Common, Oxford, July 29 and Aug. 4, 1916. I am almost certain that these are the true repens of Koch—the little doubt that exists being occasioned by the absence of fruits. Few of the plants, which are very plentiful indeed at Port Meadow, were producing flowers, but a large number of living plants proved far more nearly convincing to me than did a suggestive dried one, kindly sent by Mr Druce. The general involucral bracts are frequently few, as in the Yorks. plant (see J. B. 185, 1906, and Irish Naturalist, pp. 1 and 100, 1914, on the two species). In both localities the repens avoided the permanently water-covered ground. Possibly a creeping form of nodiflorum was also present.—H. J. RIDDELSDELL.

Carum verticillatum Koch. Near Row, Dumbartonshire, Aug. 10, 1916.—Alfred Webster.

Anthriscus vulgaris Bernh. Barford St. Michael, Oxon., May 16, 1916.—H. J. RIDDELSDELL. "A. Scandix Beck retains an older trivial."—DRUCE.

A. Scandix Beck. Hoylake, The Wirral, Cheshire, May 20, 1916.—C. WATERFALL.

Peucedanum palustre Moench. Wicken Fen, August 4, 1916.—Alfred Webster.

Heracleum villosum Fisch. [224]. By the river, Mildenhall, W. Suffolk, 26, June 10, 1916.—W. C. Barton.

Caucalis arvensis L. [226]. Carbrooke, 28, Aug. 29, 1916.— F. Robinson.

Hedera Helix L., forma. Open wood, Chewton Keynsham, N. Somerset, 6, Jan. 26, 1916. All ls. taken from the upper branches.—IDA M. ROPER. "This may be put to my var. sarniensis, and is the first example I have seen from Britain. It is, however, not so extreme as the Guernsey plant."—DRUCE.

Viburnum Lantana L. Hedgerows, chalk, Ventnor, I. of Wight, Apr. 26, 1916.—R. S. CREED.

Symphoricarpos racemosus Michx. Nobold, Salop, Sept. 20, 1916. Becoming quickly naturalised in many parts of England.—J. C. MELVILL.

Lonicera Periclymenum L., var. quercifolia Rouy. Coppiced oakash wood, Graythwaite, N. Lancs., 69b. See Rep. 1913, 325.—W. H. Pearsall. "This is L. Periclymenum L., var. quercifolia Aiton Hort. Kew. i. p. 232 (1789). 'L. Periclymenum foliis quercinis. Oak-leaved Honeysuckle.' Ls. somewhat more hairy than usual, but the type varies in this respect, and Rouy makes a sub-var. hirsuta, 'Feuilles velues en dessous.'"—Jackson.

Rubia peregrina L. Ventnor, I. of Wight, Apr. 30, 1916. -R. S. CREED.

Galium boreale L., var. See Rep. 415, 1916. Sand-dunes, St. Cyrus, Kincardine, 91, August 1916.—G. C. Druce.

- G. Mollugo L., var. [225]. Banks, Watton, 28, Aug. 26, 1916.

 —F. Robinson. "Not Mollugo, but the hybrid Mollugo × verum."—
 BRITTON and DRUCE.
- G. Mollugo L., var. Bakeri Syme? On waste ground, Fazackerly, S. Lancs., 59, Sep. 3, 1916.—W. G. Travis and J. A. Wheldon. This is a very rare plant in this district—in fact not recorded at all in Green's Flora of Liverpool. A number of luxuriant clumps occurred

on made ground, but I think it must be regarded as an alien only. I do not know var. *Bakeri*, but this has much narrower ls. than our ordinary W. Lancs. *Mollugo*.—J. A. Wheldon. "I should have called it var. *angustifolium* Leers."—Druce.

- $G.\ Mollugo \times verum.$ Tadmarton, Oxon., July 14, 1916. Flowers yellowish, is as broad as those of Mollugo but very short.—H. J. RIDDELSDELL.
- G. asperum Schreb. Grasswood, Grassington, 64. Great Scar Limestone at 750 ft., July 5, 1916.—J. Cryer. "This is G. pusillum Murray. See Rep. 231, 1915."—Druce. "I should say G. sylvestre Poll., var. glabrum Koch, forma hispidum Schrank."—Salmon.
- G. palustre L., var. elongatum (Presl). [9]. Aylestone Meadows, Leicester, 55, Aug. 11, 1916.—A. E. Wade. "Why not G. Witheringii Sm.?"—Wheldon. "This is what I understand as elongatum—a var. (or sp.) of freq. occurrence, but I do not remember ever seeing it in the dominant form of palustre in any area."—Riddelschell. "G. elongatum Presl is an endemic Sicilian form; this is var. lanceolatum Uechtr. See Williams' Prod. i. 217, 1909, and Rep. 231, 1915."—Druce.

Asperula taurina L. Waste ground, Bradford, Yorks., 64. Altitude 300 ft. A casual, May 27, 1916.—J. CRYER.

Valerianella olitoria Poll. Bank of R. Dee, near Chester, 58, May 7, 1912.—C. WATERFALL. "Some fruits quite glab., others with a very few hairs. Perhaps best under var. leiocarpa Williams."—WHELDON. "Yes, type."—RIDDELSDELL.

Dipsacus fullonum L. Waste ground, Yiewsley, Middlesex, Aug. 26, 1916.—Alfred Webster. "D. fullonum, var. sativum L."—Druce.

Dipsacus pilosus L. [210]. Edge of ditch, in shade, Saxlingham, 27, July 30, 1916.—A. R. Horwood and F. Robinson.

Aster ——? Marston, Oxon., 23, Sept. 1915.—G. C. DRUCE.

Filago —. [224]. Sainfoin field, Great Cressingham, 28, Aug. 23, 1916.—F. Robinson. "F. germanica."—Wheldon, Riddelsdell, and Salmon.

Gnaphalium sylvaticum L., var. alpestre Druce. Glenisla, Forfar, 90, August 1916.—G. C. Druce. "Yes, i.e. var. nigrescens Grenier."—Salmon.

Inula crithmoides L. Disused saltpans, Newtown, I. of Wight, 10, Aug. 7, 1916.—W. C. Barton.

I. crithmoides L. Between Hermitage and Thorney, Sussex, Sep. 2, 1916.—R. J. Burdon.

Bidens cernua L., var. radiata DC. Canal at Market Harborough, 55, Sep. 3, 1916.—G. Chester.

B. tripartita L. Naseby Reservoir, 32, Sep. 10, 1916.—G. Chester.

Matricaria maritima L. Cliffs, Ventnor, I. of Wight, Apr. 29, 1916.—R. S. Creed. "M. inodora L., var. salina Bab."—Marshall. "In my spms. the achenes are trigonous, so is M. inodora, var. salina."—Barton.

Senecio erucifolius L., var. tenuifolius Jacq. Birkenhead, Cheshire, Aug. 19, 1912.—J. A. Wheldon.

Carduus crispus L. × nutans L. Chalk pit, Merrow Downs, Surrey, 17, Aug. 1916.—J. Comber. "Yes."—RIDDELSDELL and DRUCE.

Cirsium protense (Huds.). Wareham, Dorset, 9, June, 1916. The first year's ls. are almost ent.; those of subsequent yrs. more or less lobed and cut. It forms an approach to the luxuriant Irish polycephala. In a few instances the plants had two heads, and ls. somewhat sinuately cut—variations in no way due to hybridity.—G. C. DRUCE.

Cnicus arvensis Hoffm. × lanceolatus Willd. Roadside waste, nr. Bramley, Surrey, 17, Aug. 1916. Fide E. S. M.—J. Comber. "My spm. shows little sign of arvensis, beyond the less-divided ls. and peculiar growth. Can it be C. lanceolatus, var. nemorale Koch, which has ls. 'plerumque minus profunde pinnatifidis v. tantum lobatis' and 'capitulis potius subrotundis?'"—Salmon. "I really fail to see evidence of the presence of arvensis."—Druce. "There were many well-formed seeds on the sheets."—Pearsall and Lumb.

Crepis biennis L. [191]. Slow Bedon, 28, June 8, 1916.—F. Robinson. "No; my spm. is clearly C. taraxacifolia Thuill."—RIDDELSDELL. "Yes, C. taraxacifolia."—Pearsall and Lumb.

C. nicæensis Balb. [182]. Cultivated land, Watton, 28, July 2, 1916.—F. Robinson. "No fruit sent is ripe and filled out, but the phyllaries are downy within, and the heads large. Most likely C. biennis, which it resembles also in general habit."—RIDDELSDELL.

C. capillaris Wallr., var. agrestis (Waldst. and Kit.). Damp meadow, Wanborough, Surrey, 17, Aug. 1916.—J. Comber. dark, heads and ped. glandular. In Rep. W.B.E.C. 1914, Rev. E. F. Linton says Willdenow observed of this form, 'Involucrum plantae spontaneae glanduloso-hispidum fuit, in culta glabrum factum est.' (Koch, Syn. Fl. Germ. et Helv. ed. 2, 1844, 505). I have plants from Guernsey with small heads, slender growth and thin leaves, but with black glandular hairs on calvx and pedicels, and a plant of mine closely similar to Mr Comber's was put to capillaris type by Dr Thellung. See Rep. B.E.C. 1915. 353."—Barton. RIDDELSDELL. "The original description of Waldstein and Kitaibel says nothing of glandular black hairs on pedicels and phyllaries and the size of the flowers as figured is 1.25 cm. (not 3). I append the description so far as it applies to the inflorescence—'Flores parvi in panicula sub corymbosa: ramis pedunculis que valde inequalibus, primario brevissimo, tenuibus, debilibus, angulatis, subnudis aut villo albo setisque rarissimis adspersis, saepe bractea subulata stipatis. Calyces ovati, post florescentiam supra semina coarctata: squamis carinatis, carina intermixto tomento setigeris, interioribus linearibus, exterioribus subulatis, triplo brevioribus, adpressis.' Waldstein and Kitaibel give a reference to Willdenow (Sp. Pl. iii. 1602), who described the species C. agrestis as 'foliis lanceolato-runcinatis caulinis lanceolatis, basi dentatis sagittatis, floribus corymbosopaniculatis calveibus hirtis. Planta spontanea a culta valde diversa. In spontanea hirtus in culta fere glaber, exclusa exteriores. Flore minore quam in C. tectorum.' Strangely enough Willdenow quotes Waldstein and Kit. as the authority, although the Pl. Rar. was not then published. The real point is, are we justified in so greatly altering the written characters of agrestis? Var. agrestis (W. & K.) is practically synonymous with runcinatus Bisch. Koch (Syn. 440, 1837) has altered the characters of W. & K. to 'capitula duplo majora habet,' and changes Willdenow's words to 'Involucrum plantae spontaneae glanduloso-hispidum fuit, in culta glabrum factum est.' Williams (Prod. p. 74), while describing the flowerheads as 3 cm. across, says nothing of black hairs, and Curtis' figure (Fl. Lond. t. 327), which he cites for it, has the heads 2.3 cm. across, and the inflorescence as figured is practically glabrous, the text saying only 'pariter hispidulae.' Rouy, Foucaud, and Camus (Fl. Fr. ix. 229) describe as a sub-species C. agrestis W. & K., a plant having 'calathides nettement plus grandes: folioles du péricline, pédoncules (et parfois même rameaux) hérissés de longs poils noirs, étalés, entremêlés de quelques poils glanduleux : stigmates bruns,' which, as will be seen, refers to a different plant from that figured in Waldstein and Kit."—Druce.

Hieracium Pilosella L., var. nigrescens Fr. [7]. Narborough granite quarries, 55, June 16, 1916.—A. E. Wade.

Hieracium ——? [199]. Felmingham, 27, June 19, 1916.—F. Robinson. "Is this a somewhat eglandular form of H. grandidens Dahlst?"—Druce.

H. iricum Fr. Origin, Winch Bridge, Teesdale. Cult., Shipley, July 24, 1916. In May 1915, I brought a root which I thought might be H. iricum from Winch Bridge and placed it in my garden. This year it developed a stem 3 ft. 4 in. high, which bore 25 lateral branches and carried 147 flowering heads. The 25 spms. sent are the lateral branches, along with a radical leaf. Rev. E. F. Linton agrees with the naming.—J. CRYER.

H. Schmidtii Tausch, var. eustomon Lint. Originally from Culbone, S. Somerset, 5, in 1907. Cult. garden wall, West Monkton, June 6, 1916. [3196]. A substylose form, practically identical with a hawkweed from Watersmeet, N. Devon, sent by Rev. A. Ley to the Club as "H. Schmidtii, forma," but named by him and Rev. W. R. Linton, in B.E.C. Rep. 1906, "typical var. eustomon Linton." E. F. L. says that the phyllaries of his eustomon are very slightly more attenuate, but I can find no marked difference in spms. from Glamorgan. Styles yellow; ligules (when present) glab.-tipped. Ls. firm, m. or less glaucous.—E. S. Marshall.

H. silvaticum Gouan, var. tricolor W. R. Linton. Margin of wood, Shipley, 64, millstone grit, altitude 300 ft., June 27, 1916. Rev. E. F. Linton agrees with the naming. A new station.—J. CRYER.

H. grandidens Dahlst. [4363]. Abundant on sunny railway-cutting, just E. of East Anstey Station, both in 4, N. Devon, and 5, S. Somerset; spms. from latter—N.C.R. Styles livid, ligules glabtipped. Heads very black with glands, epilose.—E. S. Marshall.

H. ciliatum Almq. [4305]. Rocks about 2 m. east of L. Laggan, W. Inverness, 97, July 19, 1916. Styles dull yellow. Ligule tips very pilose. Confirmed E. F. L.—E. S. Marshall.

H. vulgatum Fr., var. subravusculum W. R. Linton. [4293]. Fir-plantation, E. of Loch Laggan, W. Inverness, 97, July 27, 1916. Styles yellow or livescent. Confirmed E. F. L.—E. S. MARSHALL.

Hieracium —. Origin, a wall at Court Colman, Bridgend, 41; cult. July 1, 1915, and June 9, 1916. Ligules glabrous, styles dingy yellow.—H. J. RIDDELSDELL. "This looks like the Surrey plant issued as No. 37 of the Lintons' set, enlarged by cultivation. It was supposed to be H. pellucidum Laestad., and may come under that, but Ley's var. lucidulum is now identified with the type."—MARSHALL.

H. gothicum Fr. (form). [4300, 4301]. Spey valley, about Crathie and Laggan Bridge, E. Inverness, 96, Aug. 2 and 4, 1916. Styles pure yellow. Heads with many white hairs. Placed under H. gothicum by E. F. L.—E. S. MARSHALL.

H. sciaphilum Uechtr., var. amplifolium Ley. Chester, July 1916.—C. WATERFALL. "The foliage of this does not agree with authentic spms. of the variety; I think it should be referred to the type."—MARSHALL.

H. sabaudum L., var. virgultorum (Jord.). Eldwick Glen, Bingley, 64. Millstone grit at 620 ft., Sept. 3, 1916. Rev. E. F. Linton says, "H. boreale var. with rather glabrous foliage and sub-equal leaves. I have put it with my spms. of var. virgultorum Jord., which it matches very fairly well." I think the spms. are rightly placed here.—J. CRYER.

Taraxacum officinale Weber, var. obliquum Jord. Grassy bank, Tockington, W. Glos., 34, Apr. 22, 1916. Outer phylls. erect patent, ovate; fruit pale.—IDA M. ROPER. "Our old T. laevigatum, not of Poiret. Jordan described it as a species."—DRUCE.

Sonchus oleraceus L., var. albescens Neum. [1621]. Cobham, W. Kent, June 25, 1916, on railway banks. Identification based on description given in Secretary's Report, 1912, pp. 166-167. Growing with the normal-flowered plant, this var. attracted attention by its pale yellow firs., but closer inspection showed that the ligules were actually white (with the outer series purple-tinted on the lower surface), and the pale colour was due to the yellow tint of stamens, pollen and styles.—C. E. Britton. "In true albescens, corollas are white, with a grey-lilac stripe on under side; pollen is orange-yellow—characters difficult to see in dried spms."—Druce.

Tragopogon porrifolium L. [1581]. Hort. West Barnes, Merton, Surrey, May 30, 1916.—C. E. Britton.

Tragopogon ——? Dundee, Forfar, 90, August 1916.—G. C. DRUCE. "T. crocifolius L."—F. A. LEES.

 $T.\ porrifolium \times pratensis.$ [1712]. Hort. W. Barnes, Merton, Surrey, 1916. Hybrids raised by my application of pollen of $T.\ porrifolium$ to stigmas of $T.\ pratensis.$ They possess the characters of the wild hybrid described by W. A. Todd and myself $(J.\ B.\ 1910,\ 203).$ The spms. show, tho. not so well as I hoped, the curious arrangement of the colours derived from the firs. of the parents, as in each capitulum the central florets are yellow, and the outer series of a brownish-purple, really due to the union of the yellow and purple of

the parents. The spms. also show the great degree of sterility of this hybrid, but this is not absolute, and most capitula produce one or two fertile seeds. I send *T. porrifolium* for comparison.—C. E. BRITTON. "A welcome plant."—DRUCE. "Porrifolium dominant."—BENNETT.

Scorzonera humilis L. Near Wareham, 9, Dorset, July 1916, with Hydrocotyle, Ran. Flammula, Carex Goodenowii, C. echinata, C. panicea, C. flava var. oedocarpa, Deschampsia caesp., Cirsium pratense, etc., but no adventitious species. See Rep. 1915, 202. It has since been located in another grassy enclosure by Mrs Sandwith and her son, a very keen young botanist who in 1914 made this interesting addition to our flora.—G. C. Druce.

Erica Tetralix L. Silverwell Moor, near Perranporth, 1, Aug. 1916. This and the two following were growing together. E. ciliaris formed fairly level sheets of rich deep colour on the drier ground; the hybrid was in rounded cushions of pink, and E. Tetralix—though plentiful in moister ground—inconspicuous from its loose trailing habit.—F. RILSTONE.

E. ciliaris L. Silverwell Moor, near Perranporth, 1, Aug. 1916.

—F. RILSTONE.

× Erica Watsoni Benth. Silverwell Moor, near Perranporth, 1, Aug. 1916.—F. RILSTONE.

Pyrola rotundifolia L. Glen Phee, Forfar and Caenlochan, 90, Aug. 20 and Aug. 5, 1916.—R. & M. Corstorphine. "Yes, Balfour gathered it there in 1854; in great beauty and plenty on steep rockledges."—Druce.

Limonium binervosum Salm. Minute form growing abundantly in shallow tidal mud over limestone, estuary of R. Leven, Frith Hall, N. Lancs., 69b. In large colonies it is difficult to find a plant over 2 inches.—W. H. Pearsall.

Statice planifolia (Syme) Druce. Ben Laiogh, M. Perth, 88, August 1916. The late Mr Clement Reid agreed that this is a species distinct from our two maritime plants. It belongs to the pleurotrichous section in which the spaces between the calyx ribs are glabrous: the phyllaries are larger and more membranous; the ls. are normally broader, more obtuse and thickened, than in the shore plants. If the genus Armeria is retained, this will be A. planifolia (Syme).—G. C. Druce.

S. maritima Mill. Slapton sands, S. Devon, July 1916. This is the holotrichous Thrift, with hairs on the interspaces of the calyx-

tube, and appears to be a southern species. I was unable to find a pleurotrichous form. (See Rep. 1915, p. 203).—G. C. DRUCE.

Centaurium pulchellum Druce. [241]. Facing sea on Freshwater Down, Wight, 10, Aug. 29, 1912, and [242] sandy hollow near sea, Albecq, Guernsey, Aug. 16, 1912. These are the plants alluded to in Syme E.B. and Townsend Fl. Hants. The suggestion made in the latter that the condition is occasioned by the plants being constantly browsed certainly cannot apply to the Albecq plants. Mr Marquand in Fl. Guernsey says that the Albecq plant is probably var. Schwartziana Wittr. It does correspond to the description given in Rouy Fl. de Fr. of Erythraea ramosissima Pers., var. \(\gamma \) pulchella Griseb., for which he gives Wittrock's name as a synonym.—W. C. Barton. "Yes, similar to my spms. from Grand Havre; they differ in the shorter, broader, and more obtuse ls. from the inland forma subelongata. At the Grand Roques still more extreme plants occur. They seem worth a distinctive name."—Druce. "Both Erythrea pulchella Fr., var. typica Wittr., f. humilis Wittr."—Wheldon. "Erythrea pulchella Fr., sub-var. pusilla Coss. & Germ."—Bennett. "Yes, exactly the form which is so frequent on the sands of Swansea Bay."—RIDDELSDELL.

C. pulchellum Druce. In the slacks and on road-margins of the sand-dunes at Kidwelly, Carmarthen, and on Whiteford Point, Glamorgan, July 1916. This is not the var. subelongata (Wittr.), nor the same as Mr Barton's plant, since it is condensed in growth and the ls. narrow to the rather acute apex.—G. C. Druce. "Erythrea pulchella Fr., var. typica Wittr., f. communis."—Wheldon.

Amsinckia lycopsioides Lindl. [4]. Rubbish heap, railway siding, Narborough quarries, Leics., 55a, June 16, 1916.—A. E. Wade. "Probably A. intermedia, as all the stamens are inserted at the throat, but as Dr Thellung remarks (Rep. 1914, 153), 'the allied species are with difficulty distinguished.'"—Barton.

Amsinckia ——. [193]. Hay-field, Wells-next-the-Sea, 28, June 18, 1916.—F. Robinson. "This is A. lycopsioides; it differs from the preceding in having the stamens at or below the middle of the tube, sometimes even at the bottom. The throat, too, is microscopically bearded."—Pearsall and Lumb. "A. lycopsioides, apparently." Riddelsdell. "A. lycopsioides, stamens at bottom of tube and throat bearded."—Barton.

Nonnea rosea Link, var. versicolor. Corn-field, Church Stretton, Salop, Aug. 1916. Coll. Miss Cobbe. The flowers, at first red, change to a beautiful pure blue. See Rep. 422, 1916. — G. C. DRUCE.

Pulmonaria officinalis L. Spinney, near Birstall, Leics., Apr. 30, 1916.—R. S. CREED.

Myosotis collina Hoffm. Prostrate form, sandy field (derelict) near Puttenham, Surrey, June 10, 1916.—A. B. JACKSON and E. WEDGEWOOD.

M. collina Hoffm. Wall, Wigginton, Oxon., May 19, 1916. The fruiting calyx was by no means ventricose when gathered. M. collina is far from invariable in the shape of the fruiting calyx, and I have spms. of M. versicolor with distinctly ventricose calyces. The two species tend to approach in this matter—H. J. RIDDELSDELL. "I agree."—DRUCE.

Verbascum Lychnitis L. Nr. Rossett, Denbighshire, July 12, 1916.—C. WATERFALL.

Scrophularia vernalis L. [192]. Stiffkey, 28, June 17, 1916.— F. Robinson.

Limosella aquatica L. [174]. Shores of Scoulton Mere, 28, Aug. 28, 1914.—F. Robinson. "Yes; more slender than our Midland form."—Druce. "Rare in Norfolk."—Bennett.

Veronica Chamaedrys L. Seedlings. Ashmansworth, N. Hants., 12, Apr. 25, 1916.—W. C. Barton.

V. triphyllos L. [185]. Thetford, 27, May 11, 1916.—F. Robinson.

Euphrasia borealis Hayne. Meadows in Upper Langdale, Westmorland, 69a, June 27, 1916. Corolla about 8 mm. long, lobes of ls. obtuse. It seems to replace E. nemorosa in the upland districts to some extent, and may be derived from it; but it has more obtuse lf.-segments and slightly larger flowers.—J. A. Wheldon. "Probably E. borealis, but very lax and weak for that species."—BUCKNALL. "Yes, borealis, but rather small and slender. In Derbyshire it grows much larger and stouter. Borealis is certainly in general an upland plant, and of course it may have been derived from nemorosa, but it is very distinct. Wettstein did not regard it as so derived; his views on Euphrasias, however, are very far from being binding, and one may often differ from him. I hesitate, however, to accept Mr Wheldon's suggestion of a very close relationship to nemorosa. It may be worth noting that I have borealis from Yorkshire, Derbyshire, Pembroke, Dorset, and Cornwall—all south of the area for borealis indicated in Wettstein's map."—Drabble. "I believe this to be E. borealis Townsend."—Pugsley.

E. curta Wettst. Whitmoor Common, Surrey, Aug. 1916.—J. Comber. "One sheet, E. gracilis Fr. Another sheet not E. curta; some of the spms. are E. gracilis, but others are like E. nemorosa in habit and may be the hybrid E. gracilis × nemorosa, if the two species grow together. The small Is. and firs. are those of E. gracilis."—Bucknall. "In reply to our query Mr Comber says, 'I did not see any other Euphrasia within some distance, but I believe nemorosa grows elsewhere on the common. These spms. were all remarkable to me for the deep reddish-violet colour of the firs.' We suggest, therefore, that these are all one species, and further, that few, if any, are healthy. Entire and bursting spore-cases of a mildew are present, and if examined without a microscope may easily be mistaken for glands. Some of them can be seen attached by many filaments. No blame attaches to Mr Comber for this condition."—Pearsall and Lumb.

E. gracilis Fr. [227]. Marshy heath, Foulden, 28, Sept. 2, 1916.

—F. Robinson. "E. Kerneri Wettst."—Pearsall and Lumb. "Not gracilis, flowers too large; can it be drawn out Kerneri?"—Druce. "Not E. gracilis, the flowers being much too large for that species. I regard it as a form of E. Kerneri Wettst., but the habit is much more lax than in Wettstein's figure, Mon. t. ix. f. 10, or in any other British specimens that I have seen. Wettstein, however, states that E. Kerneri attains a height of 40 cm., and in other respects the plants accord with his description."—Bucknall. "My spms. have lengthening corolla-tube and seem to be up-drawn Kerneri with rather small firs. This form is not uncommon in Derbyshire and seems to pass gradually into the more typical plant."—Drabble.

E. Rostkoviana Hayne. Meadows in Upper Langdale, Westmorland, 69a, June 27, 1916.—A. WILSON and J. A. WHELDON. "Correct."—BUCKNALL.

× Euphrasia Rechingeri Wetts. (= E. Kerneri × Rostkoviana, Wetts. Mon. p. 289). In boggy ground in a valley, and in thick spongy turf on Mendip, near Rowberrow, N. Somerset, Sep. 8, 1916, accompanied by rather dwarf forms of the parents and of E. nemorosa. Normal plants of the latter and of E. borealis occur in drier situations in the neighbourhood. Mr Townsend considered this to be × Levieri Wetts. (= E. curta × Rostkoviana), but, as E. curta has not yet been seen in this locality, and as all the characters of the hybrid may be traced to E. Kerneri and E. Rostkoviana, I am bound to conclude that these are the parents. Wettstein's description is as follows:—"It differs from E. Kerneri in the leaves, bracts and calyces being sparingly clothed with rather short glandular hairs; from E. Rostkoviana by the glandular hairs covering the leaves and calyces being shorter and much less numerous." The Mendip plant, however, does not

entirely correspond with this description, as the glandular hairs, numerous in some specimens and few or none in others, are almost always fairly long. The form of E. Kerneri which grows in this valley is, for the most part, weak and slender, and often excessively branched, doubtless on account of the humid situation, and this character is reproduced in the hybrid. The leaves and bracts are small, resembling in form those of E. Rostkoviana rather than E. Kerneri, and are always clothed with short bristly hairs as in that The flowers are very conspicuous, easily falling when gathered, and the corolla-tube lengthens after the flowering. selected the specimens to show glandular and eglandular plants on each sheet.—C. Bucknall. "These may possibly be hybrids between Kerneri and Rostkoviana, but I am inclined to think that they are merely forms of Rostkoviana, and so I should have named them had I had no information as to their associates. They agree very closely with spms. of Rostkoviana from Cwm Idwal collected by Mr Goode. They also agree with plants collected by me from Helvellyn and Grisedale, and from Cathole, Derbyshire, where they were not associated with Kerneri. My plants also vary in the denseness of the "Dr Williams (Prod. 6, 301) points glandular hairs."—DRABBLE. out that Rostk. may be 'almost completely destitute of glandr. hairs.'" -Pearsall and Lumb.

E. campestris Jord. In company with E. nemorosa on grassy sides of roads and lanes, and in rough pasture lands on the limestone ridge extending fr. Failand nr. Bristol, to Cadbury Camp nr. Clevedon, N. Somerset, a distance of 4 mls. Very similar to E. nemorosa, fr. which it can scarcely be distinguished except by the presence of short. straight glandr. hairs on the bracts and calvees, like those of E. From that species, however, it differs considerably in brevipila.habit and also in the stem being more often branched above and below the middle, the branches being more spreading—"subarcuatopatulis" Jord.—generally more numerous, and often compound, altho' simple forms occur. The bracts are smaller and more narrowly ovate, with more slender, and more acute teeth; the spike is more slender and less compact. The Somerset plant agreeing with Jordan's description in these particulars, I feel justified in referring it to E. campestris, altho' its striking resemblance to E. nemorosa suggests that it might be only a hitherto undescribed glandular form of that sp. Dr Drabble has kindly sent me Derbyshire spms. wh. differ in some respects fr. the Somerset plant, and are not so much like E. nemorosa. These are probably nearer to Jordan's plant, of which I have not had the opportunity of seeing authentic spms. Plants distributed by continental collectors as E. campestris range from eglandular forms allied to E. nemorosa to others with long flexuous glandr. hairs and large corollas indistinguishable from E. Rostkoviana. Wettstein, having at the time little acquaintance with E. campestris. placed it next to the latter in the Grandiflore; in my opinion it has little in common with that species, and, with regard to the lengthening of the corolla-tube, it should be noted that Jordan's description is "corollae tubo calycem fere superante," which may well apply to many species in the *Parviflora*. Fine, characteristic plants of the present form have been gathered at Oystermouth, nr. Mumble's Hd., Glamorgan.—C. Bucknall. "The spms. sent to me do not show any lengthening of the corolla, and I should name them without hesitation E. brevipila. I have collected E. campestris in many places in Derbyshire, and am very familiar with the plant. I agree with Mr Bucknall in thinking that *campestris* has but little in common with Rostkoviana. It is more nearly allied to Kerneri, but possesses short glandular hairs."—DRABBLE. "We have examined many spms. of Mr Bucknall's plant and also numerous authenticated spms. of E. brevipila. We find that all bear glands on the stem and branches—in some instances only near the base of the stem."—Pearsall and Lumb.

E. Kerneri Wetts. Chinnor, Oxon., Aug. 1908.—G. C. DRUCE. "Correct."—BUCKNALL, DRABBLE, PUGSLEY.

Bartsia Odontites Huds., var. serotina (Bert.), forma divergens (Jord.). [236]. Roadside, Calbourne, Wight, 10, Sept. 15, 1916. This plant with wide-spreading branches occurs on the chalk down between Carisbrooke and Calbourne, and was far more abundant than any other form near Calbourne station. In many of the specimens the lower branches spread at right angles to the stem. I doubt whether divergens Jordan can be put outside serotina; but the species is treated unsatisfactorily in the books and needs further study, especially as to distribution of forms.—W. C. Barton. "Yes, under O. divergens Jord."—Druce.

Rhinanthus major Ehrh. Near Easthaven, Forfar, in Syme's locality where it is still abundant, Aug. 1916. Babington records apterus from Forfarshire, but Boswell Syme was able to find only this plant which, as he says, has seeds conspicuously winged. As the mature seed is twice as broad as its wing, it must go to stenopterus. The flowers of this should be compared with those of the Somerset spms. With it grew a very narrow-leaved form.—G. C. DRUCE. "Yes, seeds with a narrow wing—var. stenopterus Fr."—MARSHALL. "This is the Alectorolophus apterus of Ostenfeld, who gives R. major, vars. apterus and stenopterus of Fries as synonyms. If the seeds are examined it will be found that the younger ones are margined, whilst the mature ones are entirely wingless, which explains the position Ostenfeld holds as regards this species."—Salmon.

 $Utricularia\ major\ Sch.=U.\ neglecta\ Lehm.\ Derwent\ Water, Cumberland, Aug. 9, 1916.\ In\ great\ profusion\ among\ the\ reeds\ at\ the$

N. end of the lake. Diligent search during a week failed to discover a flower.—W. H. Pearsall. "I hesitate to make a N.C.R. on flower-less examples, though the probability that it is *major* is great."—DRUCE.

Mentha rotundifolia Huds. Roadside, in lane near Melbourne, Derby, Aug. 20, 1916.—A. B. Jackson and F. E. Routh. "Is not this var. rugosa Wirtg. (Fl. Rhein Pr. 353, 1857)?"—Druce. "So I should name it."—Salmon.

M. alopecuroides Hull. Churchyard, Wigginton, Oxon., Sept 1916. I do not know if it is already recorded for the county, though Mr Druce tells me it has been found at Oxford. Of course, it is not native here.—H. J. RIDDELSDELL. "Yes, an alien; also found near Oxford this year by Mr Gambier-Parry."—Druce. "Yes, mine is a beautiful example."—Salmon.

M. sativa L., var. paludosa (Sole). Very local round small creek or inlet of the Rea Brook, a tributary of the Severn, Meole Brace, Salop, Aug. 17, 1916. It does not exactly agree with any authenticated spms. I possess of the var. paludosa (Sole), and I should be grateful for further opinions. When alive, the purple tinge of stem and leaves is very apparent and remarkable. It is extremely local in "This interesting and remarkable this habitat.—J. C. Melvill. mint deserves further study in a fresh condition; scent is valuable in determining these forms. I do not think it can come under either gentilis or rubra, as, amongst other points, the pedicel-clothing is against this. Although much more glabrous than any state of sativa (aquatica x arvensis) I have hitherto seen, I really think it must be placed under this—not var. paludosa, which has the upper whorls collected into a spike, but rather, I should say, subglabra Baker, of which, unfortunately, I possess no authentic example."—Salmon. "Does not agree with Sole's figure or description of paludosa; nor does it match his authenticated type spm.: it is nearest the subglabra of Baker."—Druce.

M. sativa L., var. rivalis Wats. [10]. Thornton reservoir, Leics., 55, Aug. 12, 1916.—A. E. Wade. "One plant is under M. verticillata L., a rivalis (Wats.) The second near arvensis."—Druce. "This seems to me under arvensis rather than sativa."—Salmon.

M. arvensis × spicata A. Thellung. Garden, Haymesgarth, Cleeve
Hill, near Cheltenham, Aug. 19, 1916. See last year's Rep. p. 363.
—C. Bailey.

M. arvensis L., var. [11]. Corn-field, Braunstone, Leics., 55, Aug. 19, 1916.—A. E. Wade. "Under M. Hostii Bor., on faith of spm. so named for me by the Abbé Strail."—Druce.

Satureia grandiflora Sch. Apesdown copse, I. of Wight, Aug. 15, 1916.—W. C. Barton. "This plant, the Calamintha sylvatica Bromf. and the Clinop. grandiflorum Kuntze pro parte—which is S. grandiflora Sch. in my List, is according to M. Briquet, Host's Calamintha menthifolia = Satureia menthifolia (Host). Mr Lacaita points out that the plant which in Eng. was formerly called C. menthifolia is really Satureia adscendens (Jord.) = S. Calamintha Scheele."—Druce.

Calamintha montana Lam. [229]. South Pickenham, 28, Sep. 7, 1916.—F. Robinson. "Yes, Satureia Calamintha Scheele = S. adscendens (Jord.)."—Druce.

C. nepeta L. = C. parviflora Lam. [331]. Caston, 28, Sep. 14, 1916.—F. Robinson. "Is not this Satureia Calamintha Scheele?"—Druce. "Must go under C. officinalis."—RIDDELSDELL. "This is C. officinalis Moench."—Salmon.

Salvia Marquandii Druce. Origin, Vazon Bay, Guernsey, Aug. 1912.—Cultivated at Epsom, 1915-16.—W. C. Barton. "Syme named this *clandestina*; he was by no means a splitter; he used sub-species, yet gave this the higher grade. Obviously it was not clandestina, it could not be matched in the Natl. Hbm., and no published description fitted it. It is gratifying to see that cult. has not altered its characteristic features—longer, paler corollas, leaf texture, and paucity of glandular hairs. The shape of the leaves is an untrustworthy character, but these spms show that they have become broader and therefore further removed from the description of Bentham's S. Verbenaca, var. oblongifolia. Mr Hunnybun grew Marquandii for some years and had hundreds of seedlings. He says "Both the original and the offsprings keep their characters absolutely. It is one of the not very many critical plants about which I feel quite happy, as there is no necessity to call \pm to the rescue. When one grows critical plants and is asked the result, often one has to say 'It is all right, but——'." —Druce.

Lamium hybridum Vill. Garden weed, Polperro, 2, Apr. 3, 1916.—F. RILSTONE.

L. Galeobdolon Crantz. Hedge, Failand, nr. Bristol, N. Somerset, 6, June 5, 1916. To show trailing barren shoots.—IDA M. ROPER.

Ballota nigra L. [207]. Hedgebank, Watton, 28, July 21, 1916. —F. Robinson. "Yes, forma albiflora."—Druck.

Plantago lanceolata L., var. —... Sand dunes, Birkdale, 59, June 11, 1916.—J. A. Wheldon. "A hairy form of *P. lanceolata*, allied to var. *dubia* (L.) Lilj."—Cardew and Baker.

- P. media L., var. lanceolatiformis Druce. Littlemore, Oxon., July 1916. These robust plants suggest a cross between P. media and P. major L., with which they grew, but I failed to see evidence in the inflorescence to support the view. See Rep. 1912, 173; 1915, 207. Miss Cardew and Mr E. G. Baker say var. longifolia Meyer.—G. C. DRUCE.
- P. major L., f. or var. Gravel drive, Wigginton, Oxon., Aug. 20, 1916. Not merely a 'reduced' form, the fruiting spike is broader than usual, owing to the additional spread of the fruits. Whether that, like the reduction in size, is a character due to situation, I do not know.—H. J. RIDDELSDELL. "P. nana Tratt. Arch. t. 23."—E. G. BAKER and R. M. CARDEW.
- P. major L., var. intermedia (Gilib.). [12]. Cornfield between Kirby Muxloe and Hinckley Rd., nr. Leicester, 55, Sept. 28, 1916.—A. E. Wade. "P. major L., var. agrestis Fries Nov. Fl. Suec. 25, 1828."—Cardew and Baker.
- Chenopodium opulifolium Schrad. [172]. Watton, 28, Sep. 29, 1916.—F. Robinson. "Yes."—Druce.
- C. polyspermum L., var. cymosum Moq. Waste ground, Yiewsley, Middlesex, 26, Aug. 1916.—Alfred Webster.
- Atriplex hastata L.? × Babingtoni Woods. [201]. On sand in Brading Harbour, Wight, Sept. 8, 1916. All these specimens were taken from one plant five feet in diameter. (In Fl. Hants is mentioned a plant of Babingtoni Woods, 21 feet in circumference.) The Babingtoni influence is not so apparent as the hastata, but I have seen no hastata like this. The above parentage was suggested by Mr Wilmott. Both parents were present.—W. C. Barton. "The very small fruit perianths are rather against A. Babingtoni, and there seems nothing to suggest hybridity beyond the luxuriance of the plant, which may be due to 'good feeding,' to which these plants respond so readily. Is it not ordinary A. deltoides Bab.?"—Wheldon.
- A. hastata L., var. genuina Godron, forma salina Moss and Wilmott. [213]. On mud in disused saltpans, Newtown, Wight, Sept. 7, 1916. Closely prostrate; leaves thick and fleshy; plant often turning red, = A. deltoidea, var. salina Bab. I understand that seedlings from prostrate plants like these carefully self-fertilised came up in Mr Wilmott's garden undistinguishable from upright hastata.—W. C. Barton.
- A. Babingtoni Woods. [202]. On shingle at Brading Harbour, Wight, Sept. 8, 1916. All from one plant. The inflorescence,

hardened yellowish fruit and rhomboid bracteoles put this to Babingtoni, as against the green fruit, bracteoles ovate triangular with base campanulate and inflorescence leafy to the end, of virescens. I have specimens from Brading which match closely Mr Beeby's plant in Herb. Brit. Museum certified as virescens by Lange himself. But though extreme plants of what Mr Wilmott in Camb. Brit. Flora groups under A. glabriuscula Edm. can be put with certainty to var. Babingtoni or var. virescens, I have found no specimen of either variety which does not bear some fruits tending in the direction of the other. I should be glad if any member would send me a series of specimens showing the complete range of Atriplex in any locality. To be of use for critical study it is essential that specimens should bear ripe fruit.—W. C. Barton. "The older name for A. Babingtoni is A. glabriuscula Edmst., var. Babingtoni, in Rep. B. E. C. 117, 1911."—Druce.

A. Babingtoni Woods × hastata L., var. oppositifolia Moquin. [212]. On shingle, Bembridge, Wight, Sept. 13, 1916. With both parents. Small plants upright, larger prostrate. Mr Wilmott puts these plants to the series of hybrids A. glabriuscula × hastata var. oppositifolia. See Camb. Brit. Flora, vol. ii., p. 178. The presence of large and small fruits is probable evidence of hybridity.—W. C. BARTON.

Polygonum aviculare L. On sand, Brading Harbour, I. of Wight, Aug. 8, 1916. One plant over 3 ft. diam.; root 1 cm. diam. just below ground level.—W. C. Barton.

P. aviculare L., var. rurivagum (Jord.). Corn-field, N. of Bradgate Park, Leics., 55a, Sept. 16, 1916.—A. E. Wade. "I should put this to P. heterophyllum Lindm."—Druce. "No, but very like a spm. which Lindman determined for me 'heterophyllum typ.'"—Salmon.

Rumex domesticus Hartm. × obtusifolius L. (= R. conspersus Hartm.). Waste ground near Brechin, 90, Aug. 12, 1916.—R. & M. Corstorphine.

Aristolochia Clematitis L. Godstow, Oxford, by the Upper River, July 27, 1916.—H. J. RIDDELSDELL.

Euphorbia stricta L. A casual, Ledbury, Hereford, 36, July 20, 1916.—S. H. Віскнам.

E. Esula L. Marcham, Berks., July 1916.—G. C. DRUCE.

E. Cyparissias L. Coverham Abbey, Coverdale, W. Yorks., June 10, 1916.—C. WATERFALL.

E. Cyparissias L. [221]. Shady ditch by pasture, Merton, 28, Aug. 15, 1916.—F. Robinson.

Mercurialis perennis L. [192]. Arthog woods, Merioneth, 48, June 12, 1915. I think only luxuriant type; on some specimens the leaves were very broad, 60 × 40mm. The suggestion that the plant with ovate leaves is a sex form cannot hold, in view of the fact that here both male and female had leaves of the same shape.—W. C. Barton. "Seems a step toward Mitten's plant (from Hurstpierpoint) which he considered var. ovata (Hoppe and Steud.), but it is not so short-petioled. Dr Stapf tells me that he considers Mitten's plant not the true ovata."—Salmon.

Salix caprea × Andersoniana. Sand dune "slack," Sandscale, N. Lancs., 69b. Flowers May 11, 1916; leaves Aug. 22, 1916. Teste Linton.—W. H. Pearsall.

S. cinerea × caprea? Origin, Silverdale, W. Lancs., 60. Cult. Walton, S. Lancs.; flowers April 1916, leaves Aug. 1916.—J. A. Wheldon. "Probably correct."—Marshall.

S. aurita L. [1102]. Tiptree Heath, N. Essex, 19; firs. May 14, ls. Aug. 13, 1916.—G. C. Brown. "Is there not cinerea here?"—Druce. "Foliage just intermediate between S. aurita and S. cinerea; catkins much nearer S. aurita, but there is often a short style visible. S. aurita × cinerea, I believe."—Marshall. "Leaves show little trace of S. aurita, but are much nearer S. cinerea (oleifolia). The catkins, on the other hand, might pass for those of S. aurita but for the presence in many of a few very short styles. It matches authenticated spms. we have of S. cinerea × aurita, and to this we refer it."—Pearsall and Lumb.

S. repens L. [1103]. Tiptree Heath, N. Essex, 19; firs. May 14, ls. Aug. 13, 1916.—G. C. Brown. "What was formerly called var. parvifolia Sm."—Wheldon.

Populus serotina Hartig. J. [984]. Planted, Boxford, W. Suffolk, 26; firs. Apr. 27, ls. Aug. 3, 1916.—G. C. Brown. "Yes, the commonest popular in cultivation."—Jackson.

Corallorrhiza trifida Châtel. Near Rescobie Loch, Forfar, 90, July 26, 1916.—R. & M. Corstorphine.

Goodyera repens Br. Nr. Montrose, Forfar, 90, Aug. 1916.—G. C. Druce.

G. repens Br. Parkhill Woods, Arbroath, 90, July 4 and Sep. 4, 1916.—R. & M. Corstorphine,

Helleborine palustris Schrank, var. ericetorum (A. & G.) Druce in Rep. B.E.C. 32, 1911. Near Llanmadoc, Glamorgan, 41, July 1916. If the trivial longifolia precedes palustris, this is H. longifolia var. ericetorum (A. & G.), l.c. As a variety it has no very distinctive marks except such as situation might account for; the analogous conditions of Liparis and Habenaria viridis may warrant its right to that grade.—G. C. Druce.

H. violacea Druce. Wood near Merrow, Surrey, Aug. 1916.— J. Comber. "Yes, correctly H: purpurata (Sm.) Druce."—Druce.

Orchis purpurea Huds. Nr. Wye, Kent, May 1916.—G. C. DRUCE.

- O. ustulata L. Nr. Leyburn, Yoredale, W. Yorks., June 11, 1916.—C. Waterfall.
- O. latifolia L., forma. Watermeads, Easton, N. of Winchester, N. Hants., June 1916. Rev. E. S. Marshall considers these have unusually long and narrow ls. for the spotted-leaf form.—J. Comber. "This is what has passed for the Linnean plant in England. I have seen O. praetermissa in this locality and am not sure whether offsprings of it with agg. O. maculata might not give similar plants. Diligent search might throw more light on the matter."—Druce.
- O. praetermissa Druce. Naunton 7 Springs, R. Windrush, 33, June 22, 1916. Found hybridising with O. maculata. I have the same species from Sevenhampton Bog. My herbarium records it also from Glamorgan and Brecon.—H. J. RIDDELSDELL.
- O. praetermissa Druce. Kidwelly, Carmarthen, July 1916. Growing in marshes near the sea. In Devon it grew in marshes and also in meadow land near Hartland in the Park of our member Lady Stuckley; about the seat of Earl Fortescue at Castle Hill it occurred in several places and was remarkably constant. As O. maculata was not near, no hybrids were noticed. When O. maculata or O. Fuchsii grows with it, hybrids are found which in past times I should have called O. latifolia. Also from Castle Hill, Devon, May 1916.—G. C. Druce.
- O. praetermissa Druce. Watermeads, Easton, N. of Winchester, N. Hants, June 1916.—J. Comber. "Yes, I have seen it there."—Druce.
- O. incarnata L., vera. Yarnton, Oxon., June 1916. This is the plant with pale dull rose-coloured narrow firs., the sides of the labellum strongly reflexed, the lip oblong and feebly cut into three

segments, the ls. unspotted, clear green, narrowed from a broad base to a more or less hooded tip, and stem hollow. It is a comparatively rare plant. Its northern analogue—which may prove distinct—has a broader lip, darker tints, sometimes bright red or reddish-crimson or even crimson-purple, but always with brighter tints than in praetermissa, and with a narrower labellum.—G. C. Druce.

- O. Fuchsii Druce. [1090]. Ditch, Wakes Colne, N. Essex, June 8, 1916. The prevailing form in N. Essex in meadows and open places.—G. C. Brown. "Suggests to me O. latifolia × maculata."—Travis. "The fact we want to ascertain is whether these intermediates are hybrids or are due to soil characters. Fuchsii is the plant of basic soils. These are quite typical."—Druce.
- O. Fuchsii Druce. Tackley, Oxon., June 1916. This shows the ordinary woodland form, having lilac flowers with strong dark-purple markings, the labellum deeply cut into three segments, the middle one longer than the lateral and the lateral not greatly broader or larger than the middle one. It has a great range of variation in the markings of the flower. The bracts, too, vary; they may be as long as the flowers or much overtop them. The stem is solid; the ls. more or less strongly blotched or marked with purplish-brown rings.—G. C. DRUCE.

Ophrys sphegodes Mill. Corfe Castle, Dorset, May 14, 1916. Coll. J. P. Hocking.—C. Waterfall.

Crocus vernus All. Inkpen, Berks., April 1916. It is Crocus satinus, var. vernus L.—G. C. Druce.

Narcissus major Curtis, "flore pleno." [102]. Teste G. C. D. Meadow, Edwardstone, W. Suffolk, April 27, 1916.—G. C. Brown.

Polygonatum multiflorum All. Young shoots and leaves. Ashmansworth copse, N. Hants., Apr. 25, 1916.—W. C. Barton.

P. officinale All. Grasswood, Grassington, 64, June 2, 1916. Great Scar Limestone at 700 ft. Occurs in several neighbouring places.—J. CRYER.

Allium Scorodoprasum L. Loch Fithie, Forfar, Aug. 1916.—G. C. Druce.

Maianthenum bifolium Schmidt. Origin, Kirkliston, Linlithgow. Cult. Shipley, June 14, 1916.—J. CRYER. "I have never heard of the occurrence of the May lily as a wild plant in Scotland, and it would be interesting to have details of its habitat at Kirkliston. A

detailed account of the English localities will be found in J. B. 1913, pp. 203, 257, 307."—Jackson.

Fritillaria Meleagris L. Damp meadow, bend of R. Soar near Thurmaston, Leicester, Apr. 29, 1916.—R. S. Creed. "It is bracketted in Top. Bot. for 55, but needlessly; 32 may also be added, from Nene meadows and Welton."—Druce.

F. Meleagris L. Near river, Oaksey, N. Wilts. Coll. the Postmistress of Oaksey; comm. C. Waterfall.

Juncus tenuis Willd. Nr. Llanberis, Carnarvon, Aug. 1916. Coll. Miss Cobbe.—G. C. Druce. "Very unlike the tenuis of our Reigate Heath, and must, I believe, be placed under var. laxiflorus Fiek."—Salmon. "Seems quite typical and a fine specimen."—Adamson. "This sp. differs in size, etc., very greatly. Miss Cobbe's spms. represent a diffuse-panicle form. Evidently there are two forms in Carnarvonshire, as these are much more diffuse in the panicle than others from 'near Portmadoc, Carnarvon, 1880,' gathered in the same month (Aug.)"—Bennett.

J. castaneus Sm. Ben Laoigh, M. Perth, 88, Aug. 1916. In great abundance and luxuriance this year. Evidently it varies in quantity. In Balfour's Excursions it is related that in 1849 they were unable to see it in Glasmaol where it abounded in 1847.—G. C. DRUCE.

Juncoides campestre Morong, var. congestum (Syme). Sandhills, Freshfield, S. Lancs., 59, April 30, 1916.—W. G. Travis. "Yes."—Druce. "I do not think this will pass. Syme says (E.B. ed. iii.) 'spikes all subsessile,' but one of my spms. has them distinctly stalked. I do not in any case consider Syme's congestum more than a forma, or at most a sub-variety. It certainly has nothing to do with Luzula campestris, var. congesta Buchenau (Monog. Junc. 162, 1890), figured in Engler Pflanzenr. iv. 36, 91, f. 54, 1906. This is a most distinct plant. The present spms. I should call stunted but typical."—ADAMSON.

Lemna trisulca L. Loch Fithie, Forfar, 90, July 1915. In Loch Fithie we have never seen the Lemna on the surface of the water. These spms. were dredged from the loch, submerged under three feet of water. Is this unusual?—R. & M. Corstorphine. "No doubt large quantities do sink in late autumn."—Bennett. "Have dredged it repeatedly from 8-12 feet, adhering to Potamogeton—July."—Pearsall.

Alisma lanceolatum With. Wey and Arun Canal, nr. Bramley, Surrey, Aug. 1916.—J. Comber. "Yes."—Salmon.

Potamogeton lucens L., var. acuminatus Schum. R. Nene, Thrapstone, 32, Aug. 24, 1916.—G. Chester. "Some of the specimens support Mr Bennett's contention that this is a state rather than a variety."—Eds. "The latest writer on Potamogeton corroborates Mr Fryer's opinion that this is only a state or form."—Bennett.

P. praelongus Wulf. Nene at Thrapstone, 32, Aug. 24, 1916. First permanent station for Northants.—G. Chester. "Recorded for this county by Mr Druce in Record Club Rep., 1880, p. 138."—Bennett.

P. crispus × alpinus Balb. River Earn above Dalreoch Bridge, Mid-Perth, Aug. 11, 1916. See last year's Rep., p. 376.—W. BARCLAY.

Scirpus compressus Pers. Nr. Moreton Station, The Wirral, Cheshire, May 20, 1916.—C. WATERFALL. "Is C. disticha Huds."—TRAVIS, WHELDON, BARTON. "A small form of C. disticha, in the early firg. stage having superficial resemblance to S. compressus."—DRUCE.

Eriophorum latifolium Hoppe. Walverden valley, near Burnley, S. Lancs., 59, July 1912. Leg. C. R. Ritchings; comm. W. G. Travis.

Rynchospora fusca Aiton. Hamsworthy, Dorset, June 1916.—G. C. Druce. "In flower—interesting because so rarely gathered flwrg."—Bennett.

Cladium Mariscus Br. Wicken Fen, Aug. 4, 1916.—Alfred Webster.

Carex —— ! [189]. Wet heath, Stow Bedon, 28, June 10, 1916. F. ROBINSON. "C. panicea. From this colour to pale green in our area."—Pearsall and Lumb. "A 'smutted' form of C. panicea L."—Druce. "C. panicea. Is it alga-infested!"—Bennett.

C. riparia × vesicaria. Nr. Wytham, Berks., July 1916. Not quite the same plant as × C. csomadensis from Grendon, Bucks., but doubtless of the above parentage, growing with both parents and merging into one or the other. These represent the intermediate stage. See Rep. 1915, 216.—G. C. Druce. "According to some, riparia × vesicaria is C. riparia L., sub-sp. gracilescens Hartm. There is not the slightest difficulty in separating Mr Druce's plant from vesicaria."—Bennett.

C. acutiformis Ehrh. and var. Kochiana (DC.), from a marsh rich in Carices, near Fairwater, Cardiff, May 23, 1912.—H. J. RIDDELS-DELL. "Yes, type."—DRUCE.

- C. lasiocarpa Ehrh. Rydal Water, Westmorland, 69a. Altitude 181 feet. June 28, 1916.—A. WILSON and J. A. WHELDON. Stow Bedon, 28, June 10, 1916.—F. ROBINSON. Wilverley Bog, New Forest, S. Hants., June 1916.—J. Comber. Rydal Water, 69a, June 28, 1916.—A. WILSON.
- C. hirta L., var. spinosa Mort. Water meadows, St Cross, Winchester, S. Hants., June 1916.—J. Comber. "Yes."—Druce.
- C. sylvatica Huds. [206]. Shipdham, 28, July 20, 1916.—F. Robinson.
- C. fulva Host. [220]. Damp pasture, Caston, 28, Aug. 11, 1916. —F. ROBINSON. "I think C. distans L. The glumes have no scarious border as in fulva."—Druce. "Our local maritime plant seldom shows roughness of beak."—Pearsall and Lumb.
- C. limosa L. Wilverley Bog, New Forest, S. Hants, June 1916.— J. Comber.
- C. atrata L. Caenlochan, 90, Aug. 20, 1916.—R. & M. Corstorphine.—"Yes, it was in very fine condition there."—Druce.
- C. elata All. Moat at Lyveden Old Buildings, 32, July 2, 1916.— G. Chester. - "Yes, quite typical."—Druce.
- C. gracilis Curt. With C. acutiformis, vesicaria, riparia, disticha, inflata, and others in a marsh, Fairwater, 41, May 23, 1912. Some of the spms. have long points to the glumes (? var. prolixa Fr.)—H. J. RIDDELSDELL. "Yes, fairly typical."—Bennett.
- C. Goodenowii Gay, forma. [217]. Carbrooke Fen, 28, Aug. 6, 1916.—F. Robinson. "Surely only C. acutiformis."—Druce, Marshall, Salmon, Bennett.
- C. Goodenowii Gay, var. chlorostachya Asch. [4268]. Strath Mashie, Laggan, E. Inverness, 96, July 15, 1916. Fruit light green, much exceeding the glumes.—E. S. MARSHALL.
- C. curta Good. Baildon Moor, 64, Millstone Grit at 800 ft., June 29, 1916. A new station, I believe.—J. CRYER. "Yes, C. canescens L."—Druce.
- C. disticha Huds., forma. [211]. Pool near heath, Garboldisham, 28, July 29, 1916.—A. R. Horwood and F. Robinson. "Yes, forma congesta."—Druce. "I do not see any forma in this; it varies greatly."—Bennett.

C. dioica L. [176]. Carbrooke Fen, 28, July 6, 1915.—F. Robinson. "Mine were mixed spms., one being C. dioica L., the others Scirpus pauciflorus Lightf."—Druce. "S. pauciflorus."—Bennett. "Most of this gathering was S. pauciflorus."—Pearsall and Lumb.

Panicum capillare L. Waste-tip, Eastville, Bristol, October 1916. A common weed of cultivation in U.S.A., occurs rarely on waste ground in Europe.—J. W. White. "Yes, alien from N. America."—Druce.

Setaria viridis Beauv. [171]. W. pl., Watton, 28, Sep. 4, 1916.

—F. Robinson.

Panicum glauca Beauv. [1]. Garden weed, Leicester, 55a, Sept. 1915.—A. E. Wade. "Yes, P. glaucum L., now Setaria glauca Beauv."—Druce.

Alopecurus bulbosus Gouan. Damp meadow near Lavant sluice, Appledram, Chichester, June 7, 1916.—R. J. Burdon. "Yes, Prebend. Burdon showed it me there, growing in great quantities."—Druce.

- A. bulbosus Gouan. Chichester, W. Sussex, May 1916.—G. C. DRUCE. "Yes—recorded from this locality by Arnold (Sussex Flora, 1887)."—Salmon.
- A. aequalis Sobol. [208]. Margins of Scoulton Mere, 28, July 22, 1916.—F. Robinson. "Yes."—Druce, Salmon.

Phleum pratense I., var. nodosum L. Fields near Cranford, 32, July 25, 1916. Rare in Northants.—G. Chester. "Yes, more robust than usual. Mr Chester says the associated F. bromoides and Agrostis alba were also striking and robust. P. pratense, var. nodosum L. Teste Dr Thellung."—Druce.

- P. alpinum L. Feula Burn, Clova, 90, Aug. 5, 1916.—R. & M. Corstorphine.
 - P. alpinum L. Caenlochan, Forfar, 90, Aug. 1916.—G. C. DRUCE.

Agrostis tenuis Sibth., var. aristata Druce. [1703]. Ham, Surrey, July 30, 1916.—C. E. Britton. "Yes, but more stoloniferous than usual."—Druce. "Ligules truncate, awns long, for tenuis; is it a hybrid?"—Bennett.

Polypogon —— ? Garden, Haymesgarth, Cleeve Hill, near Cheltenham, June 1916. It comes near a Maltese plant I received

in 1875 from Mr J. F. Duthie. It sprang up on gravel paths this summer. The gravel came from near Worcester seven years ago, but the plant was not detected till this year.—C. BAILEY.

Gastridium lendigerum Gaud. West Chiltington, Sussex, Aug. 20, 1916.—Alfred Webster. "Yes, correctly G. ventricosum (Gouan) Sch. & Th."—Druce.

Apera interrupta Beauv. [201]. Threxton, 28, July 6, 1916.— F. Robinson. "Yes, excellent spms."—Druce.

Ammophila baltica Link. [196]. Sea-wall, Wells-next-Sea, 28, June 17, 1916.—F. Robinson. "No, this is a condition of Agrostis alba with hypertrophied glumes. Even more pronounced than the one I described in Rep. B.E.C. 508, 1913, from Aldeburgh."—Druce. "Not as named, but an abnormal state of Agrostis alba with the glumes hypertrophied owing to the attacks of a Tyleuchus (eel worm) producing a galled condition. Stanton (British Plant Galls 1912, p. 112) mentions Tyleuchus agrostidis Steinb. which attacks various grasses of the genus Agrostis, causing the ovary to become elongated and tinted violet and the glumes hypertrophied."—Jackson.

Aira caryophyllea L., var. aggregata (Tim.). [204]. Felmingham, 27, June 19, 1916.—F. Robinson.—"Yes, may pass."—Druce.

A. praecox L. Upland moors (1100 ft.), E. Witton Fell, Yoredale, W. Yorks., June 12, 1916.—C. WATERFALL.

A. praecox L. Nr. Freshfield, S. Lancs., 59, about sea-level, June 3, 1916.—C. WATERFALL.

Cynosurus echinatus L. Alien, in plenty, South Inch, Perth, June 1916. Seed probably derived from fodder supplied to horses of A.S. Corps, encamped here in 1915.—W. BARCLAY.

Molinia caerulea Moench. [248]. Open common, Llandrindod Wells, Radnor, 43, Aug. 17, 1916. Among the hundreds on the common, only one clump with wide-spreading panicle; at a distance it looked like elongated Poa trivialis. Have other members observed a similar state? Unfortunately the peculiarity is much less evident in the dried spms.—W. C. Barton. "Spreading panicle not evident in my example—most of the branches now appressed to the rachis, so the peculiarity is perhaps temporary, and—as the anthers are just protruded—due to anthesis and sunshine."—Wheldon. "The gathering, as a whole, supported Mr Barton's note. We have repeatedly seen similar states on a hot dry day."—Pearsall and Lumb. "I put it under var. major Roth."—Druce. "Var. robustior Prahl."—Bennett.

M. cærulea Moench, var. obtusa Hackel? [228]. Foulden, 28, Sept. 2, 1916.—F. Robinson. "This has obtuse glumes—the main characteristic; the curiously interrupted growth is not essential."—DRUCE.

Poa nemoralis L., var.? [202]. Threxton, 28, July 6, 1916.—F. Robinson.

- P. nemoralis L., var. uniflora M. & K.? Weekley Hall Woods, 32, May 28, 1916.—G. Chester. "A slender form near subuniflora Reichb."—Druce.
- P. alpina L. This Poa with reddish-purple panicle is very abundant on Caenlochan, 90, Aug. 20, 1916.—R. & M. Corstorphine.
- Glyceria festuciformis Praeger (in J.B. 353, 1903), ? not of Heynh. in Reich. El. Excurs. 45, 1830. Chichester Harbour, W. Sussex, July 1916. Dr Stapf agrees that neither these nor Mr Praeger's spms. from Strangford Lough, Co. Down, nor those distributed by me (Rep. B.E.C. 174, 1914) as var. hibernicus are the true festuciformis—a Mediterranean species.—G. C. Druce. "Near G. festuciformis, but differs in relative size of barren glumes and the shape of the barren flwrg. glumes."—Rendle and Wilmott.
- G. Borreri Bab. Chichester Harbour, W. Sussex, July 1916. This I strongly suspect to be a hybrid, but experiments are needed to solve the problem. It is very plastic and differs enormously according to the condition of the soil, gravel, or clay, in which it grows. If put in a distinct genus from Glyceria, as is done by Hackel (who calls it Atropis), the older name is (J.B. 108, 1916) Puccianella Borreri (Bab.), with which, however, P. permixta Parl. Fl. It. i. 370, is said to be synonymous by Rouy. If so, Parlatore's trivial is the older; but a question arises as to the validity of either generic name over Glyceria.—G. C. Druce.
- G. Borreri Bab. Pagham Harbour, Sussex, June 10, 1916.—R. J. BURDON. "Probably all are hybrids. The gathering afforded evidence of procumbens, of distans, and of maritima. A good number would pass for Borreri."—Pearsall and Lumb.
- Festuca ——? [188]. Sandy soil, Thompson, 28, June 3, 1916.
 —F. Robinson. "F. ambigua Le Gall."—Pearsall and Lumb,
 Druce, Roper.
- Festuca ——? [195]. Morcom, 28, June 17, 1916.—F. Robinson. "A mixed gathering, which includes any or all of the following:
 —F. ambigua, F. bromoides, F. Myuros, F. rigida, and Avena

flavescens. In most tufts, at least two of these species are separably intermixed."—Pearsall and Lumb. "We agree with Editors."—Druce, Britton, Riddelsdell.

F. ambigua Le Gall. [222]. Gravel pit, Mildenhall, W. Suffolk, June 12, 1916.—W. C. Barton. "Yes."—Druce, Salmon.

Bromus erectus Huds. [1085]. Roadside, Kettlebarston, W. Suffolk, May 28, 1916.—G. C. Brown. "Yes, but not normal."—Druce.

- B. hordeaceus L., var. leptostachys (Pers.). [1089]. Roadside, Langham, N. Essex, June 7, 1916.—G. C. Brown. "This is var. glabrescens (Coss.) Druce, Fl. Berks."—Druce.
- B. hordeaceus L., var. compactus (Bréb.). Dry banks by the sea, Abraham's Bosom, near South Stack, Holyhead, Anglesea, June 1916. This has the panicle of var. Thominii (Bréb.), but differs in being more erect and in having the glumes hairy.—W. G. Travis. "I call this B. hordeaceus L., var. conglomeratus (Pers.). See Rep. 393, 1892."—DRUCE.
- B. interruptus Druce. Great Wallingford, W. Suffolk, May 28, 1916.—G. C. Brown. "Yes, rather poor, but it has the split glumes."
 —Druce.
- B. interruptus Dr. [221]. Roadside, Mildenhall, W. Suffolk, June 12, 1916.—W. C. Barton. "Yes."—Druce.
- B. interruptus Druce. [186]. Rocklands, 28, abundant in sainfoin field, May 25, 1916.—F. Robinson. "Yes, quite good."—Druce.
- B. interruptus Druce. Eynsham, Oxon., June 1916.—G. C. DRUCE. "No more B. interruptus is needed, unless from new vice-counties."—Pearsall and Lumb.

Agropyron repens Beauv., var. glaucum Doell. Hedgebank, Guildford, Surrey, July 1916.—J. Comber. "Yes."—Druce. "Differs from glaucum by ls. not being involute and pungent at the end. Probably a short-glumed f. of var. aristatum Doell."—Bennett.

Hordeum sylvaticum Huds. (= Elymus europaeus L.). Brampton Ash Woods, 32, July 20, 1916. Rare in Northants.—G. Chester. "Yes, a very rare plant in Northants.—Elymus europaeus L.—if retained in Hordeum it is H. europaeum All."—Druce.

Equisetum arvense × limosum. [4378]. Near Dulverton, S. Somerset, June 3, 1916.—E. S. Marshall.

E. limosum L., var. polystachyum Lejeune. Wareham, Dorset, June 1916. Necessarily this belongs to the var. fluviatile.—G. C. DRUCE.

E. limosum L., var. fluviatile L., f. polystachyum. Rhine, Heth Felton, Dorset, June 28, 1916.—Ida M. Roper.

E. palustre L. Meadow by R. Bret, Monk's Eleigh, W. Suffolk, May 28, 1916.—G. C. Brown.

E. palustre L., var. polystachyum Weigel. Swamp near Shamley Green, Surrey, June 1916. This (so-called) variety grew here in great quantity apparently to the exclusion of the type. All plants appeared to have borne a central spike, withered by the time I found them. The aberration did not seem to be due to any injury.—J. Comber.

Adiantum Capillus Veneris L., variety? From the crevices in the limestone pavement near Ballyvaughan, Co. Clare, July 1907. The pinnæ in this variety are much larger than those of the common Continental form.—G. C. Druce.

Asplenium Adiantum-nigrum L., var. acutum (Bory). Killarney, Kerry, Aug. 1911. Not an extreme form but nearer to acutum than to Adiantum-nigrum. These are from a root I brought from Killarney, and are grown in a glass-house on which the sun does not shine, so that the segments are not quite so narrow as when I found it on a sun-bathed rock-face.—G. C. Druce. "I am doubtful whether this is the true acutum Bory, as, although the points of pinnæ and fronds are very acute, the pinnules are less so, and have not the linear segments of the true 'French fern.' The frond seems to correspond to Moore's Asplenium Adiantum-nigrum, v. intermedium. I have found similar plants in Devon."—Stansfield.

Athyrium alpestre Milde, var. obtusatum Syme. [4273, 4274]. Coire nan Gall, N. of Loch Laggan, W. Inverness, 97, July 14, and Aug. 7, 1916. I thought these might be A. flexile Syme; but they do not agree at all with the spms. in the Boswell Herbm., though the stipe is usually short for A. alpestre. The blunt pinnules seem to favour var. obtusatum.—E. S. MARSHALL. "Yes."—STANSFIELD.

A. alpestre Milde. Winter Corrie, Clova, 90, Aug. 31, 1916.—R. & M. Corstorphine. "Yes."—Stansfield.

Cystopteris fragilis Bernh. Within 5 m. of Stow-on-Wold, 33, May 24 and June 22, 1916. Not a new county record. This fern was known in E. Glos. many years ago, but it has disappeared from

