

THE
BOTANICAL
EXCHANGE CLUB.

REPORT OF THE CURATOR
FOR
1876.

LONDON :

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REPORT FOR THE YEAR 1876.

BY THE CURATOR.

THE Curator, before he inserts any remarks in this Report on plants contributed to the Club for the distribution of last spring, has the pleasure of laying before the members some valuable notes on a few of the plants sent out in the previous year, kindly communicated to him by Professor Babington, but received too late for insertion in the Report for the year 1875.

Among the notes for the year 1876, he desires specially to call the attention of the members to the very interesting and valuable description of *Hieracium Dewari* by Dr. Boswell, read at a meeting of the Edinburgh Botanical Society, on December 13, 1877.

In the labelling of specimens he would impress on members of the Club the great importance of inserting on each label the name of the collector, *as such*, of the attached specimen. In one or two cases he has reason to fear that specimens have been forwarded to him for distribution bearing the name of the contributor, not of the collector. It is indispensable that, in the case of a member forwarding plants not collected by himself, the name of the collector, as well as of the contributor, be given.

The following are the notes from Professor Babington, referred to above:—

Ranunculus Godronii. From a small pond near Willesden, Middlesex, June, 1875.—T. B. Blow. Correct. Certainly not *Drouetii* with floating leaves.

R. Drouetii. I very much doubt Blow's plant from Plumstead being this. I suspect it is only a very loose form of *trichophyllus*.

R. trichophyllus. Duthie's seems to me more typical than Brotherston's plant. [See B. E. C. Rep., 1875, p. 8.—*Ed.*]

Spergularia neglecta = *Lepigonum salinum*.

S. marginata is, I believe, the *Lepigonum marinum* of Wahlenberg.

S. rupestris = *L. rupicola*. I believe that the name *rupestris* cannot stand, as I have shown in the unfortunately-unfinished E. B. S., vol. v., fol. 2977.

Malva borealis, Wallm. Near Antony village, E. Cornwall. It would be curious to trace the mode in which this plant got to Cornwall.

Trifolium agrarium, Schreb. Bagby Fields, near Thirsk, N. Yorkshire.—T. J. FOGGITT. There is extreme confusion in the naming of these plants by different authors. I think with Koch and Des Moulins that *agrarium* = *procumbens* of Smith, and has two forms, *A. campestre*, DC., and *B. procumbens*, DC.; the *campestre* and *pseudo-procumbens* of Boreau. The differences between them are exceedingly small, scarcely, in fact, enough to enable Boreau to distinguish them.

Rubus Leesii. Bog at Woodloes, near Warwick. 1875.—H. BROMWICH. I have little doubt about its being the *Idæus anomalus* of Arrh., and probably will enable us to reduce *Leesii* to that species, as I shall be glad to do.

Hieracium dubium, Linn., Fries. I agree that this is *pratense*. See both of Fries's books on the genus, and also the *collinum* of Reich. Icon. Fl. Germ., xix., t. 116.

Atriplex "rosea," Linn. This is *A. farinosa*, Dum., which is the oldest name that I know for it. Dum. Florula Belgica, 20 (1827.) I do not know Hoffm. Deutschl. Flora, and so cannot say what his *sinuata* may be. There is a Cape *sinuata* of Thunberg Fl. Cap. (1823), but I do not know it. It is quoted by Moquin Tandon, 56. Rœmer and Schultz consider it quite distinct, and call it (the Cape plant) *Thunbergianum*, vi., 281. I think it best, therefore, to hold to Du Mortier's name, which is certain.—C. C. BABINGTON, *in lit.* 13 Nov. 1876.

Thalictrum maritimum. Hedgebanks between Barton Mills and Lakenheath, West Suffolk. July, 1876.—A. BENNETT. The fruit is too immature to enable me to decide its name, but I suspect it to be small *T. flexuosum*. Without perfectly ripe fruit, it is impossible to arrive at a satisfactory conclusion.—J. T. BOSWELL.

T. flavum, var. *riparium*. By the Codbeck, below Thirsk, Yorkshire. July 27, 1876.—T. J. FOGGITT. Probably rightly-named, but all the full-grown capsules are changed into galls. One of the specimens has the leaves very narrow, though not so narrow as in a plant sent me from Oswestry, Salop, by Miss E. Jones, in July, 1875. This I believe to be the *T. flavum* β . *angustifolium* of Grenier and Godron's 'Flore de France,' = *T. nigricans*, DC. *T. angustifolium*, "Linn.," Koch, has the root not at all creeping. *T. angustifolium*, "Linn.," Grenier, has apiculate anthers.—J. T. BOSWELL.—Of the plants referred to by Dr. Boswell, Miss Jones was only able to send a few unsatisfactory specimens to the Club last year. The habitat is a hedge at Llansilin, near Oswestry, and in a letter to me Miss Jones says, "I wished to have got a good many specimens, but I left the flowers to go to seed; and to my great disappointment, a man cutting the hedge cut all the flowers off." *A. Thalictrum* sent by Mr. Bagnall from Aston, Warwickshire, is *sphærocarpum*: not *riparium*, as he supposed.—T. R. A. B.

“*Ranunculus fluitans*, Linn.” Mr. Brotherston remarks of some specimens of a *Ranunculus* forwarded under this name:—“Common in the Tweed and its tributaries. I send a few different forms. Are any of them worth naming as varieties?” Dr. Boswell labelled some of them with floating leaves, “*Bachii*,” and appended the remark, “I never saw floating leaves so well developed as on some of these specimens.” Professor Babington says, “The *Bachii* of Brotherston is *R. confusus*.”—T. R. A. B.

“*R. truncatus*, var. Sutton Park, Warwickshire. July, 1876. Form without submerged leaves.”—JAMES BAGNALL. A plant with numerous large, broad floating leaves. Hardly ‘without submerged leaves,’ for on one or two of the specimens a few small capillary submerged leaves are visible on young shoots, from the naked lower portions of the stems.—T. R. A. B. I have frequently seen *R. truncatus* with only floating leaves so late in the year as July; possibly Mr. Bagnall’s plant might be found to have them in May.—J. T. BOSWELL. Mr. Warren forwarded a *Ranunculus* found “in a pit in a brick-field at Burgess Hill, Sussex, August, 1876,” with the following remarks: “What is this? The floating leaves are *Lenormandi*, and will not do in outline for any of the *peltatus* section. The flowers are rather large for *Lenormandi*, but I have seen them in that species as big. Observe the submerged leaflets.” I sent this on to Dr. Boswell, with the note: ‘A comparison of this with Mr. Bagnall’s *R. truncatus* var. from Sutton Park has satisfied me this must come in under *peltatus*, though in some respects simulating *Lenormandi*. It, however, differs, conspicuously from the latter in the shape of the petals and stipules, as also in the hispid carpels.’—T. R. A. B. I should call this *peltatus*, *truncatus*. I see nothing peculiar about it.—J. T. BOSWELL.

R. truncatus. Honilby, Warwick. June 5, 1876.—R. L. BAKER. This I look on as the normal form of *R. truncatus*.—J. T. BOSWELL.

R. floribundus, Bab. forma. Pond near Brockenhurst, S. Hants. This is peculiar by its overlapping generally entire leaf segments. April, 1876.—H. & J. GROVES. Pool in gravel-pits, Mitcham Common, Surrey, June, 1876.—H. & J. GROVES. These were sent to Dr. Boswell, with the remark, ‘I am glad Mr. Hiern has seen these; I should have been in doubt between *floribundus* and *truncatus*.’ T. R. A. B.—This seems to me *R. truncatus*, not *floribundus*. A plant, sent under the name of *R. floribundus*, from ponds near York, by Mr. G. Webster, June, 1876, I should also call *truncatus*. *R. floribundus*, from a slow stream, Mitchelldean Meend, Gloucester, April, 1876, Augustin Ley, is what I consider *floribundus* in its young state. A plant of the same name from Beausale, Warwick, June, 1876, R. L. Baker, is a rather small state of the plant. *R. penicillatus*, “River Leam, Radford, Warwick, July, 1876, R. L. Baker,” is the ordinary form without floating leaves; but *R. peltatus*, var. *penicillatus*, from the River Blyth, Stonebridge, Warwickshire, July, 1871, J. Bagnall, is *R. fluitans*.—J. T. BOSWELL. *R. floribundus*, from Brockenhurst, I think is *peltatus*, not *floribundus*. *R. elongatus* of Mr. Brotherston is, I think, *peltatus*.—C. C. BABINGTON.

"*Ranunculus pseudo-fluitans*, Newb." Lathkil Dale, Derbyshire, 17th July, 1876. This species is common in the River Wye, into which the River Lathkil runs, but generally in small patches. In the Lathkil, however, the water is hidden by the foliage and flowers, for long lengths of the river's course.—CHARLES BAILEY. A peculiar plant, with leaf segments shorter than in ordinary *penicillatus*; in fact, not longer than in luxuriant *tricophyllus*, or *Drouethi*, only slightly collapsing; the petals large, as in ordinary *penicillatus* or *floribundus*. I believe it the same as an unnamed form growing in the River Maram, Welwyn, Herts, for specimens of which I am indebted to Mr. Blow. In the latter the carpels are bristly-hairy; but as there is no mature fruit on Mr. Bailey's specimens it cannot be seen whether the two agree in this feature.—T. R. A. B. I agree with Mr. Briggs that this plant comes very near the puzzling form of *R. aquatilis* which Mr. Blow found at Welwyn. The carpels in Mr. Bailey's plant are hairy in their young state, but the flowers are larger than in the specimens of the Welwyn plant which Mr. Blow sent me. Mr. Briggs's remarks point out the distinctions between Mr. Bailey's plant and *R. penicillatus* very clearly; I think it would be advisable that he should give a name to the form which seems to deserve one as much as *R. floribundus*.—J. T. BOSWELL. I hardly think that this is the *penicillatus*. It seems to me to be only a form of *heterophyllus*.—C. C. BABINGTON.

"*R. triphyllus*, Wallr." Ditch, Mitcham Common, Surrey, June, 1876.—H. GROVES. Mr. Baker says Mr. Hiern has seen this. "*R. triphyllus*." Pit in Park, Tabley, Cheshire, June, 1870. I follow Mr. Hiern in thus naming this specimen.—J. L. WARREN. Of Mr. Grove's plant from Mitcham, Dr. Boswell says: "This plant is the one I had in view in describing *R. heterophyllus* in the third edition of 'Engl. Botany.' The carpels being glabrous, or more or less hispid, I believe to be an inconstant character, and that this form is only distinguishable from *radians* and *Godronii* by its larger flowers." Of the Tabley plant: "This is *heterophyllus*, Fries., 'E. B.', ed. iii. The carpels are conspicuously hispid, contrary to Mr. Hiern's statement in 'Journal of Botany.'"—J. T. BOSWELL. *R. triphyllus*, from Mitcham, Mr. Groves. If this is indeed the *triphyllus* of Hiern, his idea of it is very different from mine. I call it *heterophyllus*, and in a not uncommon form. Both of Mr. Harbord Lewis's plants I believe to be forms of my *heterophyllus*, not *radians*. I say the same of Mr. Baker's two plants from Warwick.—C. C. BABINGTON. The plant sent by Mr. Harbord Lewis as *R. capillaceus*, Thuill., from ditch at Crosby, Lancashire, seems to be *R. submersus*, i.e., *R. heterophyllus*, Bab., without floating leaves; but the specimens are too imperfect to enable me to be sure of the name: they have no mature fruit.—J. T. BOSWELL.

"*R. radians*." Plentiful in a pond at Floors, Roxburgh, July, 1876.—ANDREW BROTHERSTON. With the note, by Dr. Boswell, appended: "*R. Godronii*. See the hairs on the under side of the floating leaves." I agree with Dr. Boswell, and say *Godronii*.—C. C. BABINGTON.

“*Ranunculus confusus*, Godr.” East end of Duddingston Loch, near Edinburgh, July 6, 1876. This is a locality specified in Syme, ‘E. B.’ My specimens are not so good as I could have wished, but are the best I could find. The plant is confined to one end of the Loch, growing amongst the marginal vegetation in shallow water. I could see no sign of it where the water was more than a few inches deep, and there were no fragments of the plant amongst the broken *Myriophyllum*, *Potamogeton*, &c., that had floated to the edge of the Loch.—F. M. WEBB. The following note was sent with this to the Curator by Mr. Baker: “Mr. Hiern thinks this better called *Baudotii* than *confusus*.” I have no doubt that this is really *R. confusus*, Gren. & Godr. I sent specimens of it to the late Professor Grenier under this name, and he returned an answer that they were correctly named, according to his judgment. *R. confusus* I believe to be the fresh-water form of *R. Baudotii*.—T. B. BOSWELL. The Duddingston Loch plant is *Baudotii*, as Mr. Hiern thinks.—C. C. BABINGTON.

“*R. Baudotii*, Godron, v. *confusus*?” Pool in Old Town bog, St. Mary’s, Scilly, May, 1876. Collected by Mr. Curnow for Mrs. Lomax. This I should call a form of *R. peltatus*; it has neither the conical receptacle nor the ligulate stigma of *R. confusus*, and indeed differs from *R. truncatus* only in its nearly glabrous carpels.—J. T. BOSWELL. The Scilly plant, I think, is also *Baudotii*.—C. C. BABINGTON.

R. salsuginosus. Tweed, near Kelso, Roxburgh, July, 1875. This form is frequent in the Tweed.—ANDREW BROTHERSTON. To this note of Mr. Brotherston’s Dr. Boswell appended the following: “I don’t know what to call this; it is not *salsuginosus*, which is *R. confusus* without floating leaves. It reminds me of a plant from Hertfordshire, sent by Mr. T. B. Blow.” Probably correct according to Hiern’s nomenclature, but a state of *confusus*.—C. C. BABINGTON.

R. salsuginosus? In the Chester and Ellesmere Canal, near Cristleton Bridge crossing it, S.E. of Chester. Collected in company with Mr. Webb, June 29, 1875. A great mass of this batrachian fringes the canal, and at this point and once else in the neighbourhood of Chester we found floating leaves. I submitted the plant to Mr. Hiern this autumn, and he writes me that “it is the same, or very nearly so, as the North Devon specimens alluded to by me in ‘Journ. Bot.’ ix., p. 103, under No. 34 (1871.)” Turning to No. 34 (*R. marinus*) of Mr. Hiern’s monograph, we read: “A curious state best referred to this form (*i.e.*, *R. marinus*), occurs in England (N. Devon) and Sweden! with elongated, rather stout and sub-parallel leaf-segments, and small flowers with hairy fruit receptacles. It approaches *fluitans* and *pseudofluitans*. The Devonshire plant occasionally has floating leaves, and then it would belong to *Baudotii*. It grows in a mill-stream liable to be mingled with tidal water.” No doubt the canal-water is somewhat brackish whence the specimens came, as we saw *Callitriche obtusangula* in their company.—J. L. WARREN. I should call this *R. confusus*, Gren. & Godr.—J. T. BOSWELL.

Ranunculus intermedius, Hiern Mon. Pond, Setley Plain, S. Hants, April 17, 1876.—H. & J. GROVES. Kerris Moor and Chyanhall Moor, Penzance, April, 1876. Collected by Mr. Curnow; communicated by Mrs. Lomax. A small state of *Lenormandi*, occurring in peaty moorland ground near Plymouth, comes so near this in the shape of the leaves and in general appearance, that the only good mark of distinction between the two is the hispid receptacle of *intermedius*. Both the Setley and Kerris Moor specimens show fruit fully formed, although collected so early as April, thus proving *intermedius* to be a very early-flowering plant like *Lenormandi*. Messrs. Groves remark concerning the Hants plant: "This shows an interesting series of forms, from the small typical state on the gravelly margin of the pond to the large form in deeper water (which almost becomes *R. Lenormandi*), with more rounded leaf-segments, longer petals, and sometimes a few submersed leaves."—T. R. A. B. *R. intermedius*, Hiern, Kerris Moor, Penzance, collected by Mr. Curnow for Mrs. Lomax, 1876, and Setley Plain, South Hants, J. & H. Groves, are no doubt rightly named. I do not see that the absence or presence of submerged leaves is a sufficient distinction from *R. tripartitus*. From the seeds of the Surrey *R. intermedius*, Mr. Borrer raised plants with capillary submerged leaves quite similar to those of *R. tripartitus* sent me in 1875 by Mr. W. H. Tugwell, who collected it near Hailsham, in Sussex.—J. T. BOSWELL.

R. acris, var. *vulgatus*, Jord. Radford, Warwick, May, 1876.—R. L. BAKER. Sowerby Flats, near Thirsk, N. E. Yorkshire, June, 1876.—THOMAS J. FOGGITT. Both of these are rightly named.—J. T. BOSWELL.

Caltha palustris, Linn., b. *Guevangerii*. Swampy spot in a wood, Lee Mill Bridge, S. Devon, May 1st, 1876.—T. R. ARCHER BRIGGS.

Eranthis hyemalis, Salisb. Meadow near Bagby Church, near Thirsk, N. E. Yorkshire, May 6th, 1876. I first met with this plant in the meadow, March 11th, 1871. It was then in full flower, and very beautiful, growing as it does in great profusion. It must have been established then a long time, as I have known the place for more than thirty years, and there has been no garden or house near the place.—THOMAS J. FOGGITT.

Papaver Argemone, Linn. var. Gravel-pit, Hertford, Herts; with typical *Argemone* and *dubium*, August, 1876.—T. B. BLOW. A slight variety, having the capsules armed with only about from six to eight bristles, irregularly disposed around the top of the capsule: only two specimens sent.—T. R. A. B. This form I have not before seen. It comes very near the *P. Argemone* β . *glabrum* of Koch's synopsis, but that has the upper part of the stem, with its leaves, as well as the capsule, "glaberrima."—J. T. BOSWELL.

"*Fumaria Borai*." Fields, Yetholm, July, 1875. Ednam, Roxburgh, July, 1876. Abundant on the Borders.—ANDREW BROTHERSTON. '*F. Borai*,' from Yetholm, I am inclined to think is *confusa*, but have some little doubt.—C. C. BABINGTON.

"*F. Borai* (Intermediate form.)" Roadsides and cultivated ground, Kelso, Roxburgh, August, 1875, and October, 1876. This

plant approaches *pallidiflora*: the sepals are long as in that form, from half to two-thirds the length of corolla tube, and sometimes the pedicel is recurved.—ANDREW BROTHERSTON. Are they not really *pallidiflora*, a?—C. C. BABINGTON.

Fumaria (*sp?*) Cliffs, West Head, Whitsand Bay, E. Cornwall, May 16, 1876.—AUGUSTIN LEY. This I should call *F. Boræi*. I now believe *F. speciosa*, *F. pallidiflora*, and *F. Boræi* form but one sub-species.—J. T. BOSWELL.

F. (*sp?*) Downton, Herefordshire, May, 1876.—AUGUSTIN LEY. This is *F. confusa*, Jord., as I understand it, but I have now come to the conclusion that it is impossible to draw any line between *F. confusa*, Jord. and *F. muralis*, Sonder.—J. T. BOSWELL.

F. officinalis, Linn. (form of). Cultivated ground, Makerston, Roxburghshire, August, 1876.—E. HUTMACHER. This, which was supposed by Mr. Hutmacher to be *F. Boræi*, is essentially the same as a plant sent me by Mr. Webb from Dirleton, Haddingtonshire, respecting which he wrote: "What name should be applied to this plant? At the distance it has the appearance of one of the *Capreolata*, and it is only when picked that the ordinary *officinalis* characters are recognised." Both plants are certainly a form or variety of *officinalis*, very possibly the β of Hooker and Arnott in 'British Flora,' ed. vii. (? and earlier), described as "diffuse, or climbing, green, segments of leaves flat, broad." The spatulate lower petal and form of the fruits show conclusively that these plants do not belong to any one of the *Capreolata* segregates.—T. R. A. B. The *Fumaria* from Hutmacher I agree is *officinalis*.—C. C. BABINGTON.

Crambe maritima, Linn. Sea-cliffs between Sidmouth and Salcombe Beach, South Devon. Still fairly abundant in May, 1876, but mostly in inaccessible situations.—W. MOYLE ROGERS.

Brassica Cheiranthus, Vill. Hedge-bank, Fawley, South Hants. Although probably originally introduced with seed, this seems well-established on several hedge-banks.—H. & J. GROVES.

Sisymbrium Sophia, Linn. On the sandy hedge-top in the allotments ascending the downs above Brighton to the race-course. Queried as occurring in vice-county, No. 14, E. Sussex, in 'Topographical Botany,' August, 1876.—J. L. WARREN.

Hesperis matronalis, Linn. Newtonden, Berwick, August, 1876. Abundant on a steep wooded bank at Newtonden, and stragglers on Tweed-side.—ANDREW BROTHERSTON. I have known of the extensive existence of this plant in Newbottle Spinney, near King's Litton, Northamptonshire (where my specimens were obtained), for some years past, and I have seen no evidence indicating any house or garden from which it could have originated as an escape; it has clearly been established here for many years.—R. L. BAKER.

Cochlearia (? *sp.*) By the side of a roadway on the shore of Forder Lake (tidal inlet), S. Stephens, E. Cornwall, May 22, 1876. Some pods slightly constricted; to some extent flattened on each side; in shape and appearance coming between those of *C. officinalis-genuina* and *C. danica*; growing with the latter plant, with

officinalis in the neighbourhood.—T. R. A. B. I should call this *officinalis* on account of its large petals.—J. T. BOSWELL.

Draba muralis, Linn. Limestone rocks, Sleightholme Beck, near Bowes, N. Yorks., May 26, 1876. As it is not recorded in the new Flora of Northumberland and Durham, I suppose the locality near Bowes will be about its most northern habitat, as it is only a few miles from the Durham border.—J. P. SOUTTER. Plentiful in Nurseries at Kelso; well-established for some years. In same sort of habitat at Melrose.—ANDREW BROTHERSTON.

Camelina sativa, Crantz. A few plants grew in a corn-field about a quarter of a mile from Ditton Railway Station, and towards the banks of the River Mersey, S. Lancashire. August 24, 1876. The plants, with one exception, appeared to have been cut down when the corn was gathered, so there would be small chance of its getting naturalized hereabouts.—ROBERT BROWN. Supposed by Mr. Brown to be *eu-sativa*, 'E. B.,' iii., but Dr. Boswell says: "*C. fetida*, not *eu-sativa*."—T. R. A. B.

Viola lactea, Sm., b. *intermedia*, Wats. By a hedge-bank, Egg Buckland Down (long ago enclosed), S. Devon, May 11, 1876. Coll. T. R. Archer Briggs. This seems quite the same as Mr. Watson's plant mentioned in the 'Bot. Exchange Club Report' for 1875, p. 10, which was collected by the heathy way-side, north of Fleetpond, Hants, June, 1875, by Messrs. Watson and Warren, which I suggested might be *V. stricta*, Hornemann. Mr. Watson this year, besides a number of dried specimens, sent me living plants of the Fleetpond violet; and I think there can be no doubt that they are *lactea*, and not *stricta*. In *V. stricta* the flowering stems are elongated and straight in fruit; but this is not so in the Surrey plant. Although the specimens had not been exposed to any circumstances likely to induce their weak flexuous appearance. The petals are also narrower than in true *V. stricta*, and the flowers are of a very pale purplish-blue as in *V. lactea*, not "*Liliacino-carulei*," Koch, nor "*D'un bleu-violet*," Gren. and Godr.—J. T. BOSWELL.

Saponaria officinalis, Linn. var. *puberula*, Syme. Hedgebank, Hightown, Lancashire, August 5, 1876.—J. W. BURTON. *Saponaria officinalis*, var. *puberula*, mihi. 'B. Ex. C. Report,' 1872-4, p. 11. Mr. H. C. Watson points out to me that in DC. 'Prod.,' vol. i., p. 365, this puberulent form is considered the type of the species, and that the glabrous variety is entered as '*β. glaberrima*;' also that in Smith's 'English Flora,' vol. ii., p. 285, the calyx is described as 'somewhat downy;' and that in Bertolini's 'Flora Italica,' vol. iv., p. 535 (to which I have not access), the calyx is described as '*scabridus*.' I have not seen either British or foreign specimens except Mr. Brown's, in which the calyx was not glabrous. Koch gives "*Calyce cylindricale glabro*" in italics, consequently an essential character, 'Syn. Floræ Germ. et Helv.,' ed. ii., p. 108. Grenier and Godron give "*Calice glabre*," 'Fl. de France,' vol. i., p. 225; Boissier "*glabra * * * calicis glabri*," and of his next species, '*S. Bodeana*,' he says: "*facies precedentis sed pubescens*," 'Flora Orient.,' vol. i., p. 527. It therefore appears

that the experience of these authors has been similar to my own.—J. T. BOSWELL.

Cerastium pumilum, Curt. (with early state.) Daddy Hole Flats, Torquay, S. Devon, April and May, 1876.—F. TOWNSEND. These are the most luxuriant British specimens I have seen; but in the two cards of specimens sent me by Mr. Briggs there is a specimen of *C. triviale*, *pentandrum* on each, which have no doubt been accidentally gummed on, as the bulk of the specimens are rightly named.—J. T. BOSWELL.

C. triviale, Link., d. *alpestre*. Little Kilrannach, Forfar, July, 1876.—AUGUSTIN LEY. This certainly comes near the variety, *holosteoides*, but is more hairy, the stem especially being hairy on all sides, and not alternately in strips. Should any botanist visit Shetland he should look for the very remarkable form found at Balta Sound, North Uist, by Mr. A. Craig-Christie. In this the flowers are considerably larger than in var. *alpestre*, or in the largest-flowered states of var. *holosteoides*. I do not possess a specimen, so I cannot give any minor characters by which Mr. Christie's plant, which may be called var. *serpentini*, can be distinguished, but it is well worth investigation.—J. T. BOSWELL.

C. latifolium, β . *compactum*. Creag-na-dalbeg, Braemar, July, 1876.—AUGUSTIN LEY. A very characteristic specimen of this variety.—J. T. BOSWELL.

Stellaria media, With., var. *neglecta*. Hedgebank, Alresford, Essex, May, 1876.—E. G. VARENNE. Rightly named. Peduncles pubescent; seeds strongly tubercled round the margins, but only granulated on the disc.—J. T. BOSWELL.

S. umbrosa, Opitz.; *S. Elizabethæ*, F. Schultz. Hedgebanks near Torquay, S. Devon, May, 1876.—F. TOWNSEND. This is an extension of the known range of this plant to the south-west, but no doubt if the plant were looked for it would prove to have a wide range. I have very little doubt that it is a good sub-species; the seeds are tubercled all over, and not merely round the margin, as in *S. eu-media*, and the plant is truly perennial. Instead of going on producing branches which flower until stopped by frost, as in *S. media*, *S. umbrosa* forms autumnal barren shoots very similar to *S. nemorum*. These remain through the winter, and do not flower till the following spring, as I have ascertained by bringing the plant into the garden and watching it. I sent a few specimens to the Club from Pirniss Wood, Balmuto, Fife, to show this autumnal and winter state.—J. T. BOSWELL.

Arenaria serpyllifolia, Linn. (var. *Lloydii*?) Brakes east of Lugger's Cave, Whitsand Bay, E. Cornwall, May 17, 1876.—AUGUSTIN LEY. Sandy pasture below Tregantle Fort, Whitsand Bay, E. Cornwall, June 24, 1875. Sandy spot by Bigbury Bay, below Ringmore, S. Devon, May 8, 1876.—T. R. ARCHER BRIGGS. *Arenaria serpyllifolia*, maritime form, of which Mr. Briggs says: "Seems near to, but not exactly *Lloydii*." Sandy pasture below Tregantle Fort, E. Cornwall, and by Bigbury Bay, South Devon. Both of these seem to me true var. *Lloydii*, as also does a plant sent under this name by the Rev. Augustin Ley, from brakes east

of Lugger's Cove, Whitsand Bay, Cornwall, May, 1876. A plant, also named *Lloydii*, by Mr. Duthie, from sea-shore near Hythe, Kent, is quite intermediate between the vars. *Lloydii* and *spharocarpa*, having the large capsules with very strongly-veined sepals of the former, and the glandular pubescence of the latter, to which it also approximates in its less condensed inflorescence.—J. T. BOSWELL.

Spergularia neglecta, Syme, E. B., b. *salina*. About salt-mines, Northwich, October 17, 1876.—J. FRASER. Branborough, Cheshire, August, 1875.—J. W. BURTON. The Branborough specimens were labelled *C. media*, but belonged to *salina*, having the pedicels about equal to their leaf-like bracts, and twice as long as the capsule; seeds without papillæ.—T. R. A. B.

S. marginata, Syme, E. B. Slight variety, having the calyces and pedicels decidedly glandular-hairy. Grassy bank by Hooe Lake, a tidal inlet from the Plym, S. Devon, August 10, 1876.—T. R. ARCHER BRIGGS. An interesting form of *marginata*, which a careless observer might pass over as *S. rupestris*, with which, however, it has really no affinity.—J. T. BOSWELL.

Claytonia alsinoides, Sims. Hay-field, Derby, July 22, 1876.—R. H. ALCOCK. Thicket at Aigbith, near Liverpool.—H. S. FISHER.

Malva borealis, Wallm. Road-side near Antony Village, E. Cornwall. Still at the station in the summer of 1877.

Tilia grandifolia, Ehrh.—Woods, Great Doward Hill, Herefordshire, September, 1876. Coll., B. M. WATKINS; com., AUGUSTIN LEY. This looks to be more like *T. intermedia*, but the fruits have been crushed by being pressed too hard in drying. The buds, however, are quite glabrous.—J. T. BOSWELL.

Geranium striatum, Linn. Hedgebank near Renburn, Berwickshire, August, 1876.—E. HUTMACHIER. Hedgebank, Little Dew Church, Herefordshire, May, 1876. Quite near a cottage and garden. I have only known it here for the last two years; but it looks as if it was old-established, having quite taken possession of two or three yards of the hedgebank, and growing in considerable quantity.—AUGUSTIN LEY.

Ononis arvensis, Auct. Lane between Sowerby and the Topcliffe Road, near Thirsk, N.E. York. I send these specimens as an unusual form. The whole plant is procumbent, lying almost flat upon the ground. It is scarcely viscid, and the leaves are almost glabrous. The branches are mostly secund, and it is not in the least spinous. August, 1876.—THOS. J. FOGGITT. I do not see how this differs from the common form, except in being a little more glabrous. On the southern coast there is a more viscid plant with a strong odour, which differs more from the type than Mr. Foggitt's plant.—J. T. BOSWELL.

Medicago lappacea, Lamk. Tweed-side, Kelso, Roxburgh, June and July, 1876. I have found a few plants of this each season for the last four years. It grows in company with the other Medicks, along with which it has been introduced to this district with wool. All the Medicks are uncertain in their appearance;

some years they are much more plentiful than others.—ANDREW BROTHERSTON.

Lotus corniculatus, Linn., var. *villosus*. Hythe, Kent, July, 1876.—J. F. DUTHIE. So I should name it.—J. T. BOSWELL.

“*L. tenuis*, Kit.” Upland pasture, Harlow Hill, near Harrogate, M. W. Yorkshire. I met with this plant in the same field, July 1, 1870, where it grows plentifully, and seems well-established.—THOMAS J. FOGGITT. We have a *Lotus* form near Plymouth which I believe to be identical with this from Mr. Foggitt. Here I suspect it to be often an introduction with clover and grass seeds.—T. R. A. B. *Lotus tenuis* from Harrogate; I have doubts, it is generally a long straggling plant, not at all like this.—C. C. BABINGTON.

Lathyrus Aphaca, Linn.—Salcombe, near Sidmouth, S. Devon, May 30, 1876. A small form in great abundance in a narrow valley near the sea, and on the sea-beach. With it, on the beach, was *Vicia bithynica*, Linn., and near it, in the rocky valley, *Lithospermum purpureo-caruleum*, Linn., which had forced its stems through dense thickets, and was crowning them with profuse masses of its bright purple flowers.—W. MOYLE ROGERS.

“*Prunus insititia*, Linn.” King’s Cople, Herefordshire, April 6 and July 3, 1876. “*Prunus domestica*, Linn.” Hedge, near cottage, Sellack, Herefordshire, April 5 and June 2, 1876.—AUGUSTIN LEY. Considering the large size of leaves and flowers, and want of spines on each of these, I think we must refer both to *domestica*, notwithstanding the hairy leaves of the King’s Cople shrub. I say the same of a plant from Mr. Brotherston, collected at Plum-braes, Ednam, Roxburgh, 1876. From observations in the neighbourhood of Plymouth, I am led to think a series of forms connect *domestica* and *insititia*; indeed, some suppose our British *domestica* (or at least the plant of ‘E. B.’), to be the *P. insititia* of the Continental botanists. We have a first step upwards from the Sloe common about Plymouth, and unquestionably indigenous, which helps to make up the “*insititia*” of British botanists. It is, I believe, *P. fruticosus*, Weihe. I have received a specimen from the Rev. A. Ley, labelled “*insititia*” on Mr. Baker’s authority, and Mr. Foggitt has contributed numerous examples, also labelled “*insititia*, Linn.,” from “hedges, Bagby, Thirsk, N.E. York.,” which likewise seem to be the same form; but as they are simply flowering specimens, without any fully developed leaves, I cannot speak positively concerning them. It is, I think, clear that “*P. insititia*” of British botanists includes at least two or three forms.—T. R. A. B.

Rubus incurvatus, Bab. Hedge between Port Wrinkle and St. Germans Beacon, E. Cornwall, August 14, 1876. Border of a field, Antony, E. Cornwall, August 2, 1873. Sent to Professor Babington, with “*incurvatus*” queried.—T. R. A. B. *Rubus incurvatus*, Antony and Port Wrinkle.—C. C. BABINGTON.

R. Koehleri, a. Hedge near St. Dominick, E. Cornwall, September 12, 1876. Sent with “*pallidus*, Weihe” queried.—T. R. A. B. I think a form of *Koehleri*, a.—C. C. BABINGTON.

R. scaber, Weihe. Sutton Park, Warwickshire, V.C. 38, August,

1876. Specimens of this plant were forwarded by myself to the Rev. A. Bloxam, in 1874, labelled "*R. scaber*, var." Commenting on this, he replied: "I should call this typical *scaber*. I find a similar plant in Leicestershire." It is a very different plant to the form usually labelled *R. scaber*, having a more open panicle, leaves remarkably flat, and stem less hairy and setose. Taking this as the type of *R. scaber*, I should say that it is very rare in Warwickshire, as I have only seen it in two or three places at Sutton Park.—JAMES BAGNALL.

Rubus Bagnalli, Blox. (*R. Briggsii* var. *Bagnalli*, Bab.) Haywoods, Warwickshire, v.-c. 38, July, 1876. This plant I found growing abundantly in the above station in 1874, and then sent it to Professor Babington, with the provisional name, *R. cordatus* (Bagnall MSS.) Professor Babington, after careful examination of the specimens sent, kindly informed me that my plant was not the *R. cordatus* of foreign botanists (I was not before aware that the name had been given to a Continental form), and that he considered it to be identical with the *R. Briggsii*, Blox. Mr. Briggs, also, held the same opinion. The Rev. A. Bloxam, to whom I also sent the plant, with Professor Babington's remarks thereon, and to whom I had also sent roots, so that he might watch it in the living state, stated that he considered it to be truly distinct from *R. Briggsii*, as truly distinct as *R. thyrsoides* is from *R. discolor*; and as my proposed name, *R. cordatus*, was already appropriated, he should name it *R. Bagnalli*, and also called attention to the following distinctive characteristics by which it might readily be distinguished from *R. Briggsii*, viz., the constantly cordate basal and intermediate leaflets, and the elongated petiole of the truly cordate terminal leaflets. In a more recent communication, October 27, 1876, Professor Babington says: "I cannot see any material difference between your *cordatus* and the true '*Briggsii*;' the terminal petiole is long in both of them and rather variable. It may, perhaps, be a well-marked form to be known by the cordate intermediate leaflets, as Bloxam remarks. As such a form, it may bear the name he gives to it, *R. Bagnalli*." The plant is still abundant in the above station, and seems to have a more rampant habit of growth than *R. Briggsii*, if I may judge of this plant by the shoots I have seen growing in Mr. Bloxam's garden, and that plant, if I remember rightly, has always ternate, closely-imbriate leaflets, whilst in the *R. Bagnalli* the 5-nate leaf is more frequent than the 3-nate, and the basal leaflets have a very much more decided tendency to be turned right away back, so that their apices always point towards the base of the petiole.—JAMES BAGNALL. Although *R. Briggsii* has normally ternate leaflets, yet this is not invariably the case, as they are sometimes quinate-pedate. The original specimens I collected from a very dry, stony spot; and to the nature of the habitat are due, as I believe, some of the slight differences between them and Mr. Bagnall's Haywoods specimens, coming from a different situation. I have recently found what I consider *R. Briggsii* in a second locality, near Plymouth, where its general appearance is nearer that of the

Warwickshire plant. I am of Professor Babington's opinion, and regard *R. Baynalli* as essentially the same as the Plymouth *Briggsii*, and would, moreover, lump them together as a variety under *fusco-ater*.—T. R. A. B.

Rubus pyramidalis, Bab., "off the type." Exposed hedge, near Calstock Church, E. Cornwall, September 12, 1876. Quite a common woodland species about Plymouth; occurring in numerous places in both Devon and Cornwall.—T. R. A. B. I do not see that this is 'off the type,' for I have seen plenty like it in N. Wales. It is very interesting to find that the plant is so abundant near Plymouth.—C. C. BABINGTON.

R. casius, Linn., 'a. umbrosus,' Prof. Babington.—St. Devereux, Herefordshire, August 22, 1876.—AUGUSTIN LEY.

Rosa involuta, Sm., (form of). Near Alstonfield, Staffordshire, July 10, 1876, &c. Said by Baker to be a hitherto undescribed form, having perfectly naked peduncles and calyx-tube, whereas Smith describes his plant as abounding in setæ. The plant rarely flowers, and I had not obtained well-formed fruits until last season.—W. H. PURCHAS.

R. hibernica, Sm., var. *Grovesii*, Baker. Barnes Common, Surrey, 1875-76.—H. & J. GROVES. Mr. Baker has drawn up the following description of this hitherto-undescribed Rose, and forwarded it for insertion here:—*ROSÆ HIBERNICA*, var. *Grovesii*, Baker. An erect compact bush, from 3 to 5 feet in height. Prickles of the barren stem more slender and less hooked than in *canina*, $\frac{3}{8}$ -in. long, with a scar $\frac{3}{8}$ -in. long, passing down by gradual transitions into a few subulate, straight, slightly-declining aciculi, none of which are gland-tipped. Leaves of the barren shoot 3-4 in. long, glaucous, glabrous; stipules glabrous, with a few glands on the edge; common petiole with 4-6 minute aciculi, none of which are gland-tipped; leaflets oblong, $\frac{3}{4}$ - $1\frac{1}{4}$ in. long, sharply, irregularly, but not distinctly, doubly dentate; teeth rarely gland-tipped; end leaflets $1-1\frac{1}{4}$ in. long, $\frac{3}{4}$ - $\frac{7}{8}$ in. broad, broadly rounded at the base. Flowers (1-3) usually solitary; peduncle naked, $\frac{3}{8}$ - $\frac{1}{2}$ in. long; calyx-tube broad oblong, naked; segments $\frac{1}{2}$ - $\frac{5}{8}$ in. long, naked on the back, with a distinct leafy point, some simple, some sparingly pinnate. Corolla milk-white, 18-21 lines across when expanded; petals an inch long. Styles densely pilose. Fruit broad ovoid, $\frac{5}{8}$ - $\frac{3}{4}$ in. long, turning colour at the end of August, deep crimson-red, the spreading sepals fully persistent, still remaining attached in October. Connects *hibernica glabra* with *canina*, vars. *sub-cristata*, *Schultzii*, and *Hailstoni*.—J. G. BAKER.

R. mollissima, Willd., b. *carulea*, Woods. Currie, Edinburgh, August 24, 1876. Perhaps not fully what Mr. Baker limits the name to, but I think very near what Woods meant.—F. M. WEBB.

R. mollissima, forma. Between Burntisland and Aberdour, Fife. September 10th, 1876.—F. M. WEBB. A remarkable form of this Rose, having the mature fruits ovate rather than globular, the primordial somewhat narrowed into the peduncle. The Rev. A. Ley sends a less extreme, but somewhat similar, form from a "hedge, Llanthony, Monmouthshire, August 29, 1876," and

“mountain rocks, Llanthony Valley, Breconshire, August 30, 1876.—T. R. A. B.

Rosa tomentosa, Sm. *Densely glandular*. Near Burntisland, Fife. September 2, 1876. In this form the glands spread to the upper surface of the leaves, which I have never seen the case with the English plant. It is generally a low bush of compact growth, and barren shoots very scarce.—F. M. WEBB.

“*Rosa tomentosa*, Sm., var.” Bank of North Esk, Hawthornden, Edinburgh. August 8, 1876. This is a Rose (and a form of *tomentosa*, I presume), that is new to me. Its peculiar prickles, thin (papery-like) concave leaves, and habits are characteristic, and it is a fairly wide-spread form in Mid Lothian.—F. M. WEBB. Looking at the prickles, I cannot consider this a form of *tomentosa*, and would put it in the *Canina* group. It is very near the “*Rosa Watsoni*,” sent by Mr. Brotherston, but differs in having the peduncles aciculate.—T. R. A. B.

R. obtusifolia, Desv. Marston Green, Warwickshire (v.-c. 38.) August, 1876. This form of *Rosa canina* appears to be widely spread through N. Warwickshire. I first found it near Solihull in two or three localities in 1873; afterwards, in company with Mr. Bromwich, I found it on Beausale Common; and since that have found it in several other localities. It seems to retain its distinctive characters very truly. I have closely examined several bushes when growing together, and have found no tendency in any of them to pass into other forms.—J. BAGNALL.

R. subcristata, Baker. Burntisland, Fife. August 14, 1876. This is the best *subcristata* that we get hereabouts, there being none of the plant with the very compound-serrate leaves and glandular-backed sepals, to which form I prefer to attach Mr. Baker's name. The present passes into the simple-serrate plant which I send as var. *Reuteri*.—F. M. WEBB. This is just what the Rev. W. H. Purchas has sent from Westside, Alstonfield, Staffordshire, as “‘between *subcristata* and *dumalis*,’ J. G. Baker.” Mr. Brotherston has forwarded specimens of the plant with the very compound-serrate leaves and glandular-backed sepals, from Tweedside.—T. R. A. B.

R. coriifolia, Fries. Minworth, Warwickshire (v.-c. 38.) September 2, 1876. Two bushes of this plant occur at the above station. I also find it at Wishaw, and near Shustoke, all in Warwickshire. Mr. J. G. Baker has confirmed the Wishaw plant.—JAMES BAGNALL.

R. Watsoni, Baker. Hedge, Kelso, Roxburgh. July, 1876. Ditch-side near Roxburgh Castle. September, 1876.—ANDREW BROTHERSTON. “*R. Watsoni*, Baker.” Ape's Tor, Alstonfield, Staffordshire. August 31, 1876.—W. H. PURCHAS. While I believe that Mr. Brotherston's specimens are rightly named, I incline to believe that many of those sent by myself as “*R. Watsoni*” ought rather to be labelled *R. coriifolia*. I took the name on Mr. Baker's *ipse dixit*, but I see, on comparing specimens with his description, that they do not all answer to *R. Watsoni*, and that many of them agree very well with a specimen which he sent me at the time his

“Review” or “Monograph” was published, labelled *R. coriifolia*.—W. H. PURCHAS. The Ape’s Tor plant, sent by Mr. Purchas, is certainly *R. coriifolia* rather than *Watsoni*, for the leaflets are simply serrated. It appears to be just the same as Mr. Bagnall’s Warwickshire *coriifolia*.—T. R. A. B.

Rosa marginata, Wallr. Meadows near Solihull, Warwickshire, (v.-c. 38.) July and September, 1876. Three bushes of this variety of *Rosa canina* occur in the hedges here. This was sent to Mr. J. G. Baker for confirmation, and he states that the plant is rightly named. It also occurs in a lane near to the above station called Shelly Lane. It seems a fairly marked form of the *sub-rubiginosa* group.—JAMES BAGNALL.

R. virginica, Rip., in Déséglise (not Extr. de l’Enum. des Rosiers, Journ. Bot., June, 1874, p. 167); Cat. Rais, no. 28, p. 57. Wood near Horsebridge, South Hants. August, 1876. This is a very large bush (about 15 ft. high), with the exception of one stem quite destitute of prickles. The name has been confirmed by M. Déséglise.—H. GROVES. Except in having hairy styles, a Rose I collected at Gawton, Beer Ferris, S. Devon, September 13, 1875, agrees admirably with the above. Before I saw Mr. Groves’s specimens I was at a loss what to name it, but suspected an approach to *R. systyla*, a view confirmed by M. Déséglise’s arrangement, in which *virginica* appears among the *stylosæ*, immediately before *leucochroa*.—T. R. A. B.

“*Cratægus oxyacanthoides*, Thuill.” Cressbrook Dale, Derbyshire, June, 1876. Wardlow Hay Cop, Derbyshire, July 12, 1876. Taxal, Cheshire, August 1, 1876. An extremely rare species in the North of England; it is therefore the more noteworthy to report it from three new stations. The station where the species appears to be least likely to have been planted is that on the eastern side of the Wardlow Hay Cop. The Cressbrook Dale Station is a mile west of this station on the opposite side of the same hill; but as there is but a single plant of it in a hedge it may have been planted. The plants from these two stations are clearly the plant of ‘English Botany,’ ed. iii. The Taxal station, an old lawn, is not likely to be an original station; and the plant, besides, does not appear to be the true *oxyacanthoides*, as there is a tendency towards an inward curvature of the veins. There is an Austrian species, *C. intermedia*, Schur., to which it may possibly be referred.—CHARLES BAILEY. The Taxal plant I should call true *oxyacanthoides*. It has two styles. *C. intermedia*, Schur., has only one, and is described as “media tenent inter *C. oxyacanthoidem* et *C. monogynam*.”—J. T. BOSWELL.

Pyrus communis, Linn., probably var. *Briggsii*. *P. cordata*, Desv. ? vide Journ. Bot., 1876, pp. 225 and 297. Hedge between Seaton and Looe, East Cornwall, August, 1876.—T. R. A. BRIGGS. Probably Mr. Briggs is right in supposing this to be var. *Briggsii*. Whether *Briggsii* be identical with *P. cordata*, Desv., I am unable to say, as I possess no specimens of the latter, except the one in Billot’s ‘Exsicc.’ 2458, which Dr. Masters says is different from the true plant of Desvauxs, &c. Judging by the descriptions of

P. Briggsii and *P. cordata*, and the plate in 'Journ. Bot.,' they appear to differ both in the shape of the leaves and the shape of the fruit. The small size of the leaves and fruit of these two plants, of course, cannot alone be considered as showing any close affinity, as each form of the genus *Pyrus* and *Prunus* is liable to variation in the size of the leaves and fruits.—(I should be extremely obliged to any botanist who could spare me a duplicate of true French *Pyrus cordata*, addressed to J. T. BOSWELL, Balmuto, Kirkcaldy, N. B.) Since I found the bushes of this Pear between Seaton and Looe, as recorded by Dr. Masters in the "Journal of Botany," I have ascertained that another, growing in an old hedge in the neighbourhood of Tregantle, E. Cornwall, several miles nearer Plymouth, is to all appearance the same peculiar form. I so judge, however, without having had the opportunity of seeing flowers or fruit. Here, as between Seaton and Looe, the spot where it grows is very near the coast. Judging from the character of the places in which it occurs at these two stations, it is just possible that this small Pear may be indigenous. The more inland Egg Buckland station, where I first found it, is less satisfactory. There it occasionally produces both flowers and fruit; and I, last spring, was fortunate enough to obtain a good supply of flowering specimens for distribution through the Club.—T. R. A. B.

"*Circea alpina*, Linn., b. *intermedia*." 1. Under hedge over the Bollin, at Ashley, or Castle Mill, July 3, 1875. 2. Eaton Hall grounds, June 26, 1875.—F. M. WEBB and J. L. WARREN. Are these examples the *intermedia* of *lutetiana*, or of *alpina*? No. 1. Gathered just outside the well-known Cotterill Wood. No. 2. Comes from a new station quite the other side of the country.—J. L. WARREN. These seem to me the same as the late Mr. Hunt's Cheshire specimens, which Mr. Watson considers as belonging to *C. lutetiana*. Does the fruit ripen in the Cheshire stations?—J. T. BOSWELL.

Callitriche verna. Toad Lane, Alstonfield, Staffordshire. August 7, 1876.—W. H. PURCHAS. This is true *C. vernalis*, as I think is also a plant sent by the Rev. W. H. Purchas from Gatten Lane, Alstonfield, Staffordshire, July, 1876; but the fruit in the latter is not quite matured, which is essential in determining the species of *Callitriche*. To *C. verna* may belong another of Mr. Purchas's plants with immature fruit, from the Bradford Yorkgrave, Derbyshire, July, 1876.

"*Callitriche verna*." Ditch, Teering, Essex, June, 1876.—E. G. VARENNE. A slender form of *C. stagnalis*.—J. T. BOSWELL.

C. verna? Ditch, Fleet, South Devon, May 8, 1876.—T. R. A. BRIGGS. This, I think, must be called *C. vernalis* from the fruit, but I have never before seen it with spatulate leaves, which I believed to be characteristic of *stagnalis* and *obtusangula*. To *C. stagnalis* must be referred a *Callitriche* from Paulston, King's Caple, Herefordshire, May, 1872. W. H. PURCHAS.—J. T. BOSWELL.

"*Callitriche verna*." Sellack, Herefordshire, June, 1876.—AUGUSTIN LEY. Clearly *C. stagnalis* by the fruit, but remarkable for the similarity of its leaves to those of *C. pedunculata*, which is the mud form of *C. hamulata*. My experience of *C. stagnalis*,

growing in mud, has been to find it with spathulate-obovate leaves.—J. T. BOSWELL.

Callitriche obtusangula, Le Gall.—Water-trenches on the Lache Eyes, S.W. of Chester City.—F. M. WEBB & J. L. WARREN. Mr. Webb first observed this plant near Chester. We saw the species in at least five other stations in the county. On the Lache Eyes (brackish water), it grows in great profusion in company with *Ranunculus Baulotii*, *circinatus*, *Drouetti*, and a number of common sub-maritime species. It will probably prove to be widely diffused in Cheshire.—J. L. WARREN. This seems to me *C. obtusangula* without doubt. The styles are considerably shorter, and the fruit narrower, and the lobes more obtuse than in the plant Mr. Warren sent under the M.S. name, *C. Lachii*, Tabley Moat, Cheshire, September, 1868, 'Bot. Ex. Report,' 1875, p. 17.—J. T. BOSWELL.

C. obtusangula, Le Gall? Plant on Barnes Common, near the northernmost of the two cemeteries. Surrey, August, 1871. This specimen did duty for three years as "*verna*" in my collection, but I suppose now it must go as above. Mr. Pryor has, I believe, found this species inland in Herts. I have no means of turning to the reference in 'J. of B.,' before my parcel goes.—J. L. WARREN. Mr. Warren, who has seen the plant alive, must be best qualified to decide its nomenclature. I should have called it *C. platycarpa*, because the margins of the carpels are distinctly keeled, but this may readily have arisen from their shrinking when drying if they were not quite mature.—J. T. BOSWELL.

"*C. verna*." Chesterton Pool, Warwickshire, July, 1876.—R. L. BAKER. This seems to me the same plant as that which the Honourable J. L. Warren names *Lachii* in 'Bot. Ex. Club Report' for 1875, p. 17, but which I believe he now refers to *C. obtusangula*. It has the general habit of *C. obtusangula*, but the large fruit is less obtuse on the margins, and the styles are very long and ultimately reflexed.—J. T. BOSWELL.

"*C. obtusangula*." Brackish marsh, Belfast Harbour, August, 1876.—S. A. STEWART. These specimens have no fruit sufficiently matured to enable me to arrive at an opinion. The habit of the plant is that of *C. stagnalis* instead of *C. obtusangula*, but I never met with that plant in brackish water. *C. obtusangula*, Le Gall, near Romsey, South Hants, July, 1876, J. Groves, is right.—J. T. BOSWELL.

Ribes rubrum, Linn. By the stream between West Sherford Farm and the Plymouth and Yealmpton Road, S. Devon. April 25, 1876. I have found it impossible to divide the specimens of the "Red Currant" collected in the neighbourhood of Plymouth between the varieties *sativum* and *sylvestre* of 'E.B.,' iii.—T. R. A. B. This is the var. β . *sylvestre*.—J. T. BOSWELL.

Saxifraga cernua, Linn. Ben Lawers, Perth, 1876. In former visits to Ben Lawers I have found this, sparingly, in the "Ordinance Gully," near the summit: this year, July 15, I only saw one plant there, but among rocks facing the west, a little higher, it was growing in fair quantity, with many plants coming into flower. I got one in full bloom, but none in fruit.—G. HORN.

Astrantia major, Linn. Old quarry at Lambhill, near Glasgow, June, 1876. I gathered this in the same station twelve years ago; at that time there were no houses within a considerable distance, and certainly no gardens. There was then one tolerably large patch, with a few isolated plants scattered about. This year I found it in large quantity growing luxuriantly. The only other plant, possibly an introduction, near it was *Pyrola minor*. It also was there on my first visit. The place is well wooded.—G. HORN.

Helosciadium Moorei? Lache Eyes, near Chester, July, 1875. I suppose this will do for the above name. It is a noteworthy plant when seen in the water. In fact my first impression was that I had got the true *Helosciadium repens*.—J. L. WARREN. This is ordinary *inundatum*. The var. *Moorei* has the leaf-segments very much larger, resembling those of small *H. nodiflorum* or of *H. repens*.—J. T. BOSWELL. What is meant by this? It seems to me to be only *H. inundatum* on mud, not in water.—C. C. BABINGTON.

Enanthe pimpinelloides, Linn. Cliffs near Sidmouth, South Devon, May 30, 1876. A most luxuriant form, growing in patches, with rose-tinted flowers and stems three feet high, in long coarse grass close to the edge of the sea-cliff. Most of the heads in bud only, but a few with a flower or two open. On August 11, 1876, I found this plant in some abundance in a large park-like field at Teffont, South Wilts, growing side by side with *Juncus conglomeratus*. This locality is eight or nine miles from the Dorset border, and its first recorded station in Wilts. Here the plants were all in fruit, and already quite destitute of root-leaves.—W. MOYLE ROGERS.

Tordylium maximum, L. Marsh ditches, near Tilbury, Essex. August, 1876.—EYRE DE CRESPIGNY. This plant is a most interesting addition to the flora of Essex; indeed it is very probable that the plant is now extinct in its Middlesex, Oxford, and Buckinghamshire stations; so that but for its appearance in Essex it would have to be regarded as extinct in Britain.—J. T. BOSWELL. May it not have been introduced lately at Tilbury, where many things are loaded for conveyance by the railway?—C. C. BABINGTON.

Galium Mollugo, Linn., c. *Bakeri*. Upton Wood, Warwickshire. August, 1876.—H. BROMWICH. I think it ought to be so named, but the leaves are broader than usual.—J. T. BOSWELL.

Valerianella carinata, Lois. Walls, Forder, near Plymouth, E. Cornwall. May 16, 1876.—AUGUSTIN LEY. This is established in plenty as a colonist, if not a native, near Plymouth. In the summer of 1876, Mr. Ralfs, of Penzance, found it between Plymouth and Lipson, and directed my attention to it. He was familiar with its appearance from having previously noticed it growing plentifully in the neighbourhood of Penzance. Thus it belongs to the S. Devon, E. Cornwall, and W. Cornwall lists. In the spring of the present year I met with it at Bovey Tracey, quite on the eastern side of the Dartmoor range of hills.—T. R. A. B.

Scabiosa maritima, Linn. Hills above St. Ouen's Bay, Jersey, August, 1876.—T. B. BLOW. I hope Mr. Blow has made some notes as to whether this has any claims to be considered native in this station, or as merely accidentally introduced.—J. T. BOSWELL.

Carduus arvensis, Curt., b. "*setosus*." Roadside embankment, Dean Brae, Edinburgh, August, 1876. Though I had no hesitation in calling what I send *setosus* as I gathered it, yet when I came to label the specimens I felt a trifle doubtful about applying the name, the marked differences in life having dulled during the drying operation. I find, however, that it accords with continental specimens so named from a good source. Of course there are all signs of a recent introduction surrounding its place of growth, and the prominent near companion was luxuriant *Chenopodium Bonus-Henricus*.—F. M. WEBB. Field at Newington, Edinburgh, August 12, 1876.—D. DOUGLAS.

'*C. setosus*.' No. It is a plant which I have seen several times, and which appears in the 'Man.,' ed. i., as *β. latifolius*; but I have long since considered it unworthy of distinction even as a variety.—C. C. BABINGTON.

"*Carduus (nutanti-arvensis?)*" Roadside between Gutsford and Modbury, S. Devon, September 27, 1876. Sent to Dr. Boswell with the following remarks: 'Of very peculiar appearance when fresh. Notice the shortly-winged stem; the peculiar florets and anthodes, the latter drooping from their weight; and the biennial-looking root. I saw only the single specimen.'—T. R. A. B. A very puzzling plant, evidently a hybrid, of which one of the parents is *Carduus arvensis*, the other some thistle with a winged stem and larger heads, quite possibly *C. nutans*, as Mr. Briggs suggests. The gatherer of a hybrid thistle has much the best chance of arriving at its parentage by observing what other thistles grow in its vicinity, which may furnish negative if not positive evidence. If it be *C. nutanti-arvensis*, it is remarkable that the pappus should retain the very long secondary hairs, which are as long as though fewer in number than in *C. arvensis*.—J. T. BOSWELL.

Arctium nemorosum, Leg. On quarry spoil-bank at Magheramorne, near Larne, Co. Antrim. August 24, 1876. One large plant only seen in flower, but abundance of root-leaves all round about. I am not aware of any other Irish Burdock having been with certainty referred to this species. Some years since, while strolling over a little island in Strangford Lough, Co. Down, I gathered a plant which I sent to Cambridge as probably *A. nemorosum*. Prof. Babington, after diagnosis, wrote me that it looked like the right plant, but too immature to be identified with certainty. I have never since been on the island referred to at the proper time to search for better specimens.—S. A. STEWART. Prof. Babington has certified to the Magheramorne specimens sent out through the Club being *A. nemorosum*.—T. R. A. B.

Centaurea aspera, Linn. Vazon Bay, Guernsey; also on the hills above St. Ouen's Bay, Jersey, with *Centaurea paniculata* and *Scabiosa maritima*, August, 1876.—T. B. BLOW.

C. paniculata. St. Ouen's, Jersey. July, 1876.—J. FRASER. It is interesting to find that this plant maintains its station in Jersey, but it is not likely to be native, as it does not occur in the north or west of France. It is not probable that Professor Babington would have missed seeing so conspicuous a plant

in 1837 and 1838, or that I could have overlooked it so late as 1853.—J. T. BOSWELL.

Matricaria inodora, Linn., c. *maritima*. Shore of the Mersey, Speke, Lancashire. August 19, 1876.—J. BURTON. Correctly named.—J. T. BOSWELL.

Senecio vulgaris, L. (var. *hibernica*!) The plants sent were gathered by me on the 17th May, 1876, at two stations in Whitsand Bay, E. Cornwall, about two miles distant from each other. Both were on the cliff, 40–100 feet. above high water mark, and were in very tolerable abundance. The ray was, I believe, flat in some of my plants; but I cannot take upon myself to assert that it was so in all. I was ignorant, when I gathered it, of the characters of var. *hibernica*, and so did not make any note of the direction of the ray in the fresh plant. Neither of the places where I gathered the plant were the same as Mr. Briggs's locality at Tregantle.—AUGUSTIN LEY. It is impossible to judge of the direction of the ray in the dried plants, but in those sent by the Rev. A. Ley the ray seems considerably shorter than in Mr. Carroll's Irish plant; indeed they are quite like the var. *radiata* of the Channel Islands. This only differs from var. *hibernica*, as far as I can see, in having shorter florets always revolute.—J. T. BOSWELL.

Doronicum plantagineum, Linn. In fair quantity on a wooded bank, facing the Clyde, Bothwell Woods, Lanarkshire. In the same station for many years. June, 1876.—G. HORN. Harperton, Roxburgh, May, 1874, and Melrose, Roxburgh, May, 1875; both stations in woods. Appears to have been long established at Melrose.—ANDREW BROTHERSTON.

Hypochaeris glabra, Linn. Hedgebank just beyond the first hedgerow on right hand side of main road from Hoylake to Little Meols, Hoylake, Wirral, Cheshire, July 1, 1876. A defined station to affirm a record for Wirral made in 1837.—J. HARBORD LEWIS.

Taraxacum officinale, Wigg., b. *erythrospermum*. Camside, Sowerby, near Thirsk, N.E. Yorks. May, 1876.—T. J. FOGGITT.

Sonchus arvensis, Linn., b. *glabra*. Thames side, between Putney and Hammersmith, Surrey, August, 1873. I see your Desiderata List asks for this certainly rare form. I send a specimen. I never gathered the plant elsewhere. Here I rather impute its glabrousness to being tide-washed.—J. L. WARREN.

Crepis taraxacifolia, Thuil., seems still spreading (see 'Top. Bot.' part ii., p. 637) in South Devon. Early in May, 1876, I found two or three plants not far from a farmhouse near Sidmouth, and ten days later Mr. Briggs and I gathered several specimens on the railroad by Dawlish Warren.—W. MOYLE ROGERS.

C. nicæensis, Balb. Upland pasture, Harlow Hill, near Harrogate, M. W. York, June 30th, 1876. For the last eight or ten years when at Harrogate, I had noticed in the above pasture a peculiar *Crepis* which I could never satisfy myself to be "*virens*." July 5th, this year, 1876, I sent a few dried specimens of it to Mr. J. G. Baker, for examination. I received the following reply: "I do not feel sure about the *Crepis*. The involucre is much more glandular than in ordinary *virens*. There is a closely-allied species

called *nicaensis*, which has this more glandular involucre in combination with brown, instead of yellow, stigmas, achenes narrowed and scabrous at the top, and outer perianth spreading. Your specimens are rather too young to judge fairly of these last two points. *Nicaensis* comes between *biennis* and *virens*, and is likely enough to be introduced with foreign seed." July 11th, I sent to Mr. Baker a few of the most mature dried specimens I had, and also enclosed a few fresh-gathered ones. I received the following reply: "I feel satisfied now that the *Crepis* is really *nicaensis*. Fruiting involucre and achenes of yours agree with undoubted continental examples, and I find the beak being scabrous to be an inconstant character. I send 50 specimens for distribution.—THOMAS J. FOGGITT. On the north bank of the Tweed, near Spring Hall, Roxburgh. June, 1874–76. This is a very variable plant, as will be seen from specimens sent.—ANDREW BROTHERSTON. Occasionally seen about Plymouth, as an introduction with grass and clover seeds.—T. R. A. B. This plant seems to be becoming more frequent, though doubtless introduced with grass seeds. The flowers of Mr. Foggitt's specimens are considerably smaller than usual, and, if this be frequently the case, no doubt the plant would be liable to be passed over as *C. virens*.—J. T. BOSWELL.

Hieracium pratense, Tausch. Roadside to the east of Edinburgh, in large quantity. June 20, 1876.—A. CRAIG-CHRISTIE. This is quite the same as the Selkirkshire plant of which Mr. A. Brotherston has been good enough to send me a wild example. I have now no doubt of its being *H. pratense*. I hear it is almost extinct in Selkirkshire.—J. T. BOSWELL. I have this growing by Mr. Christie's kindness. It seems the true plant, and the *H. dubium* of the 'Manual,' ed. vii.—C. C. BABINGTON.

"*H. casium*, Fries." Cwm-glas-bach, Snowdon, N. Wales. June, 1876.—AUGUSTIN LEY. Certainly *H. pallidum*.—J. T. BOSWELL. "*Hieracium* 'dwarfed *casium*, J. G. Baker.'" Creag-na-dal-beg, S. Aberdeenshire. July 14, 1876.—AUGUSTIN LEY. I should call this *H. pallidum* without hesitation.—J. T. BOSWELL.

H. gothicum, Fries. Very sparingly on a steep woody bank of the Wear, Bishop Auckland, S. Durham. August 3, 1876.—J. P. SOUTTER.

H. strictum, Fries. Aberdona, Clackmannanshire. September, 1876.—T. DRUMMOND. I think this must be called *H. crocatum*, Fries.—J. T. BOSWELL.

H. Dewari, mihi; *H. strictum* in part, Back. Stem sparingly leafy, slightly corymbosely or sub-corymbosely branched at the apex, scabrous, sparingly woolly, with spreading or retrorse white hairs; peduncles sparingly clothed with stellate down, with few black-based hairs and a very few black gland-tipped ones. Rosettes of radical leaves, produced on seedling plants, and in late autumn on plants which have flowered. Leaves of the rosette oval, rather abruptly attenuated into short sparingly woolly petioles, sub-acute, slightly denticulate, with the teeth often reduced to callous protuberances, sparingly hairy, with rather long white hairs above, and distinctly ciliated with similar hairs round the margins,

reticulated beneath, with a few soft white hairs most numerous on the midrib. Leaves sparingly distributed over the stem up to the inflorescence, not more crowded in the upper part, and, indeed, often more distant there than on the lower part of the stem; the lowest oval, or oval-obovate, or broadly-elliptical-obovate, gradually contracted into slender, distinct petioles; intermediate ones regularly oval, or broadly elliptical, narrowed at each end, semi-amplexicaul, but scarcely auricled; uppermost ones ovate, or ovate-lanceolate, amplexicaul, rounded at the base, acuminate; all sub-entire, or denticulate in the middle, with the teeth remote and often reduced merely to callous points, bright green, sub-glabrous, or with short distant, rather stiff, bristly hairs above, paler though not glaucous beneath, with the network formed of the ultimate veins apparent but not very distinct, with rather long stiff hairs on the veins and margins, and with shorter distant ones all over the lower surface. Anthodes rather small, few, in a simple corymb, or, if more numerous, in a lax panicle, with straggling branches, at the extremity of which there are a few sub-racemosely disposed anthodes. Pedicels short, incurved, usually with one or two minute bracts beneath the anthode. Pericline in flower sub-cylindrical from an obconic base, in fruit conical. Phyllaries few, in two irregular series; the outer ones very few, short, adpressed, sub-obtuse; the inner ones with pale margins, obtuse; all blackish-olive, rather sparingly clothed with short black hairs and longer black-based white ones, usually with a very few black gland-tipped hairs, rarely with any stellate down except at the very base. Ligules not ciliated at the apex. Styles fuscous. Achenes chestnut-brown. Plant bright green.

“Shores of Loch Long, and Inverarnon (probably in Dumbartonshire)? Inversnaid, Stirlingshire: and Killin, Perthshire.”—Dr. J. H. Balfour. “Lethensdene, Clackmannanshire, and Glen Devon, Perthshire.”—Dr. A. Dewar. “Lethensdene and Linmill, on the Black Devon and Glen of Sorrow (Tributary to the Devon), Clackmannanshire; Glen Devon, at the mouth of Glen Quay, and near the opening to Glen Eagles, Perthshire.”—Tom Drummond.

Scotland. Perennial. Late summer and autumn.

Leaves of the autumnal rosette with the lamina, 2 inches long; radical leaves in spring, scarcely forming a rosette, and often decayed before flowering, 3–8 inches long and 1–2½ inches broad, insensibly attenuated into the petiole; intermediate leaves, 2–5 inches long by $\frac{3}{4}$ –2½ inches broad. Stem 1–3 feet high. Panicle branches, 2–8 inches long. Anthodes about the size of those of *H. vulgatum*. Pericline about ½-inch long by ¼-inch in diameter.

The British, or reputed British species of *Hieracia* to which *H. Dewari* is most nearly allied are *H. Juratum*, Fries, (Borreri, ‘E. B.,’ ed. iii.), and *H. Gothicum*, Fries. No doubt it sometimes presents a superficial resemblance to *H. strictum*, Fries, but their physiological characters are widely different. Like *H. Juratum* and *H. Gothicum*, it produces a rosette in seedling plants, and in old plants, at the base of the flowering stems in late

autumn. In spring there is produced a more imperfect rosette, and some of the leaves at the very base of the stem commonly remain nearly to the time of flowering and sometimes even later, especially in shady places. The seedling rosette, the late autumnal rosette, the persistence of the lowest leaves, I have never met with in wild or cultivated specimens of *H. strictum*, *H. crocatum*, *H. corymbosum*, and *H. prananthoides*.

From *H. Juranum* it differs in having the stem scabrous, the leaves much less amplexicaul and without distinct auricles, not so conspicuously paler beneath and commonly more hairy above; the panicle when polycephalous does not produce numerous branches terminating in small corymbs, the anthodes are considerably larger, the perianth-segments not thickly clothed with short, thick, gland-tipped hairs, and the ligules not distinctly ciliated at the apex. In the garden *H. Dewari* flowers about a fortnight or three weeks later than *H. Juranum*. There is, however, a striking similarity between small specimens of the two in which the branches of the panicle terminate in solitary heads; and I should not be surprised to hear that *H. Dewari* was the plant Dickson had from Harehead Wood, Selkirk, and that he sent *H. Juranum* to Mr. Borrer from his own garden, believing it to be the same as the wild plant.

H. Dewari bears some resemblance to the broader-leaved states of *H. gothicum*, but differs in the leaves being semi-amplexicaul, with a greater tendency to be ovate in outline and less denticulate on the margins. I have never seen it with the distinctly-toothed leaves so frequent in *H. gothicum*. The leaves are of a much brighter green, and not so much paler beneath; they are also more hairy. The panicle when polycephalous has not the same tendency to produce branches terminating in corymbs. The anthodes are considerably smaller, the inner phyllaries less attenuated and much more hairy.

From *H. strictum* it differs (in addition to the points already stated) by having the stem scabrous, the leaves broader in the middle and more attenuated at each end; and more conspicuously by the long straggling branches of the polycephalous panicle. But the greatest stress must be laid on the fact of its producing a true rosette. All the specimens Mr. Backhouse has gone over in herbaria I have access to he has named *H. strictum*.

H. corymbosum, Fries, and *H. crocatum*, Fries, differ still more widely from *H. Dewari* than does *H. strictum*. Both, especially *H. corymbosum*, have the stem leaves much more numerous, more parallel-sided, and the polycephalous panicle with the branches ending in small corymbs. *H. crocatum* also has the pericline much larger, more abrupt at the base, and with far fewer hairs. *H. corymbosum* has the leaves more glabrous, and neither the one nor the other produces rosettes.

At one time I thought it might be *H. elatum*, of Fries; but as I now possess Lindeberg's 'Hieracia Scandinaviæ Exsiccata,' I can say without hesitation that it is not No. 92 of that collection. I believe its nearest ally is *H. Dovrense*, Fries, but the polycephalous

panicle is too different to permit me to join them. *H. Dovrense-protractum*, however (Lind. 'Hierac. Scand. Exsicc.,' Nos. 40-41), has a panicle more like *H. Dewari*; so I requested Mr. J. G. Baker to compare *H. Dewari* with Fries and Lager's specimens of *H. Dorrense-protractum*, and his answer is: "I feel quite satisfied that your plant is distinct from these (*H. Dorrense* and *H. Dovrense-protractum*)." Being unable to identify the plant with any described species, I am reluctantly forced to give it a provisional name, and have chosen for that purpose one to commemorate the late Dr. Andrew Dewar, of Dunfermline, to whose explorations of the botany of Clackmannan, Kinross, South Perth, and West Fife, we are much indebted. Few local botanists appear to have worked their district better and been more careful to avoid erroneous records. Most of the specimens in British herbaria, previous to 1875 (when Mr. T. Drummond sent it to the Botanical Exchange Club as "*H. strictum*, broad-leaved form"), were sent by Dr. Dewar from Linmill and the Ochills under the name of *H. 'inuloides,'* Tausch, and *H. 'rigidum,'* Hartman. There is, however, no doubt that the plant was first collected in the Loch Lomond district by Dr. J. H. Balfour.

I am greatly indebted to Mr. Tom Drummond for taking me to the stations at Linmill, on the Black Devon, near Clackmannanshire, and Glen of Sorrow, above Dollar, Clackmannanshire, and Glen Quay, close to where it enters Glen Devon. At Linmill, the plant grows on the banks of the stream in an open wood, and many of the specimens are extremely luxuriant; it grows in company with *H. strictum*, which here flowers a fortnight later than *H. Dewari*. In the Glen of Sorrow, the station is on ledges of rock. In Glen Quay, it grows on ledges of rock and on landslips; and here, in 1846, it was in great profusion, growing in company with *H. gothicum*, and flowering at the same time. *H. strictum* grows in Glen Devon, about a mile and a half from the station for *H. Dewari*.

May not *H. Dewari* be the Scotch plant referred to by Fries in his 'Symbolæ' as *H. Dorrense*?—JOHN T. BOSWELL, Dec. 1, 1877.

Mr. T. Drummond has favoured me with the following notes:—

H. Dewari, Boswell. *History gathered from specimens in Herb. Bot. Soc., Edin.*—It was originally gathered, in August, 1842, on the "Shores of Loch Long." The name of the collector is not given, but the writing is that of Prof. J. H. Balfour; no attempt has been made to refer the specimen to anything but the genus *Hieracium*; to this some one has added the name "*denticulatum*, 2," (sic) in pencil. Backhouse refers it to *H. strictum*, Fries. The earliest of Dewar's specimens from Glen Devon are labelled 3rd Aug., 1844; these seem to have come under the observation of Prof. Babington, for on one of two labels, on one of his sheets, it is stated that "this must be what Fries now calls *H. strictum*, the ligules, however, are most obscurely ciliated at the apex." This is in a well-known hand-writing, but following it is: "I think that it is C. C. B." On another label, attached to the same sheet, Mr. W. W. Evans states that Mr. Babington named them

H. Lapeyrousii: probably the former was the more mature judgment on Mr. Babington's part,—it agrees with that of Mr. Backhouse, who has written *H. strictum* upon several specimens from the place collected by Dr. Dewar. There is a specimen collected at Inverarnan in August, 1847; the collector's name is not given, but the writing is that of Professor J. H. Balfour; it has been referred to *H. denticulatum*! by him, to *H. strictum* by Backhouse, and to *H. rigidum* by some one else. There is another specimen having the label in the same writing, gathered at Killin in July, 1848; it has originally been referred to no species, but some one has afterwards added *H. denticulatum*, while "Fries refers it now to *H. strictum*," is further added. There is also a specimen from Inversnaid, labelled *H. rigidum*; the writing is similar to that in the two foregoing,—the date illegible, the collector's name absent.—TOM DRUMMOND, Dec. 27, 1846.—J. T. BOSWELL.

Ambrosia artemisiifolia, Linn. Waste spot in front of some cottages, on the western bank of the tidal Tamar, near Calstock Village, E. Cornwall. One large plant only. September 12, 1876.—T. R. ARCHER BRIGGS. "*Ambrosia elatior*, Bess." Specimens from ballast-heaps, Birkenhead, August, 1875. Tolerably frequent there, but seldom attaining maturity; being a conspicuous plant, it is destroyed by children. It has also been found by Miss E. Grundy at Parkfield, near Liverpool.—H. S. FISHER. This (Mr. Fisher's plant) seems to me *A. paniculata*, Michaux, which Torrey and Gray consider a variety of *A. artemisiifolia*.—J. T. BOSWELL.

Gentiana Amarella, Linn., var. *præcox*, Smith. Riddlesdowns, near Croydon, Surrey, June 3, 1876. Sent, as although probably not rare when looked for, only recorded from Tring (as *verna*) and Lincoln. Scattered along a chalky bank, with *Polygala*, *Lotus*, &c.—A. BENNETT. I have found spring-flowering plants of the allied species, *G. campestris*, in the neighbourhood of Plymouth. They have also been met with in the Isle of Wight.—T. R. A. B.

Verbascum Thapso-nigrum. Seaton, E. Cornwall, July, 1876. Six or seven plants, growing with many of *V. nigrum*, with plants of *V. Thapsus* near. The intermediate examples agree well with the hybrid, as described in 'E. B.,' ed. iii.; in spikes and flowers looking much like *nigrum*, but with leaves conspicuously different in shape and outline, showing plainly the connection with *Thapsus*. It is remarkable that the only locality near Plymouth that produces *V. nigrum* also gives us the hybrid between it and *Thapsus*. I noticed one hybrid plant in the locality so long ago as 1873.—T. R. A. B.

Linaria Flatine, Mill. Bean Field by the path from Thirsk to Woodend. Collected, July 29, 1876, by William Foggitt. Yorkshire, so far as ascertained, is the northern limit of this plant on the eastern side of the kingdom, and Denbigh on the western side. Mr. Baker, in his 'North Yorkshire,' speaks of it as a plant of cultivated fields, and very rare." He adds: "It has been gathered by Mr. A. Moore near Thorp Arch, and by Mr. Ibbotson in one of the fields above Cawklees bank, near Nunnington; and

was reported also by the late Mr. Williamson, from Scarbro'." As many botanists may wish to have Yorkshire specimens of this plant, I send fifty for distribution.—THOMAS J. FOGGITT.

Orobanche minor, b. *amethystea*, Thuill. Coast-cliff between Donderry and Seaton, E. Cornwall. One specimen attached to a rootlet of *Plantago Coronopus*. Mr. W. B. Waterfall, of Plymouth, has also found this plant on the *Plantago*. June 12, 1876.—T. R. A. B.

Mentha citrata, Ehrh. Wet ditch in Derbyshire, where it does not flower. Collected by Miss Stubbs for Mrs. Lomax. August, 1876. I think this is rightly named.—J. T. BOSWELL.

"*Mentha citrata*, Ehrh. Garden, September 11, 1876. Root from Howl Hill, Herefordshire.—AUGUSTIN LEY. After I received Dr. Boswell's verdict on this mint, given below, I wrote the Rev. A. Ley for further particulars concerning it, and he replied: "I sent it up to Mr. Baker in 1874, and his note upon it was, 'Substantially the Bergamot mint of gardens, *M. citrata*, Ehrh.' You will observe, from the first word of this note, that Baker does not think it typical *citrata*. I acknowledge its great general similarity to *rubra*, but its smell when fresh was markedly different from the coarse smell of *rubra*; both the taste and smell bearing a strong resemblance to those of *M. piperita*, though not identical with them. I have no specimens of *M. citrata* (true), with which to compare it."—T. R. A. B. Certainly not *M. citrata*. I believe it to be *M. rubra*.—J. T. BOSWELL.

M. sativa, Linn., var. *subglabra*, Baker. Sellack, Herefordshire. August 14, 1876.—AUGUSTIN LEY. Differing from the ordinary *subglabra* of the neighbourhood of Plymouth in having more glabrous leaves, considerably more rounded below; the serratures not nearly so deep as in Plymouth examples, nor with such acute points; the flowers reddish, not lilac-purple, in colour. The Plymouth *subglabra* is, I consider, *M. rivalis*, Sole, agreeing well with his figure.—T. R. A. B. Mr. Ley's plant is what I consider the ordinary form of *M. subglabra*.—J. T. BOSWELL.

M. cardiaca. Hasley Common, Warwickshire. October, 1876.—H. BROMWICH. This is the first specimen of *M. cardiaca* which has come into my hands, except from a garden.—J. T. BOSWELL.

Lamium intermedium, Fries. Kelso, Roxburgh, June and November, 1876. A rare weed of cultivated ground in this district.—ANDREW BROTHERSTON.

Ajuga reptans, L., var. *pseudo-alpina*. Balmuto, Fife. June, 1876. This form is a state dependent on the locality rather than a variety. The plants were gathered on a dry bank, fully exposed to the sun; in the same field, where the ground was damp, or sheltered from the sun by bushes, the ordinary stoloniferous state of the plant occurred.—J. T. BOSWELL.

Symphitum asperimum, Bieb., and *S. nplandicum*? Cultivated in Balmuto garden, 1876. I have been induced to send a few specimens of two forms of *Symphitum*, both of which I had under the name of *asperimum*, but which seemed to me distinct, in consequence of some remarks on *S. asperimum*, *patens* and *officinale*, in

the 'Journal of Botany,' 1876, by Mr. R. A. Pryor (p. 214), and Prof. Babington (p. 244). Neither has any claim to be considered a British plant. *S. asperrimum* I have from the neighbourhood of Bath, sent to the Botanical Society of London, by Mr. French, about twenty-five years ago; the other form I had sent from Bath by Mr. T. B. Flower and Mr. C. E. Broom, while I was writing the genus *Symphitum* in the third edition of 'English Botany,'—these were sent to me as *S. asperrimum*. I have also a specimen from the Rev. W. H. Purchas, labelled *Symphitum orientale?* by the River Bradford, near Yurlgrave, Derbyshire, July, 1876. Very probably this is the plant mentioned by Mr. Pryor in the 'Journal of Botany.' The plant which I consider true *asperrimum* has the veins of the leaves deeply impressed, so that they appear very rugose, the stem leaves not decurrent, and with longer petioles, and even the floral leaves scarcely so, the flowers bright blue, with the apical portion not much wider than the tube, and furrowed. The other plant has the leaves less rugose and distinctly decurrent, though much less so than in *S. officinale*, the flowers pale blue, more dingy than in *asperrimum*, and the apical portion swollen until its diameter is much greater than that of the tube, and not at all furrowed. In flower it very closely resembles specimens of *S. uplandicum*, Nyman, which I have from Dr. Ahlberg, of Upsala; but unfortunately I have not seen fruiting specimens of this plant, which Fries considers to be the true *S. orientale* of Linnæus, and of which he says: "Medium inter *S. officinale* et *S. asperrimum*." The plant I have in cultivation differs from *S. officinale* in its greater size, ovate-cordate root-leaves slightly decurrent on the petiole, much less decurrent stem-leaves, and larger flowers; but, above all, by the calyx segments in fruit becoming muricated as in *S. asperrimum*. The hairs on the branches are also stiffer than those of *S. officinale*, but much less so than in true *S. asperrimum*. With *S. orientale*, DC. Prod., it has no affinity.—J. T. BOSWELL.

Utricularia neglecta, Lehm. Pond, Kelvedon, Essex, September, 1876.—E. G. VARENNE. The young leaves are bristly, as in the Penzance plant (*vide* 'Rep. B. E. C.,' 1875, p. 23.)—T. R. A. B. As there is no doubt of this being true *U. neglecta*, Reichenbach's statement that the young leaves are "not bristly" is not to be considered a constant distinction from *U. vulgaris*.—J. T. BOSWELL.

Statice bahusiensis, Fries. Some time since, my attention was directed by the Rev. H. H. Higgins to the two forms of *Statice* growing on the Mersey shore at Bromborough, but I did not visit the locality until Mr. Robert Brown informed me that his attention had been drawn to the fact that specimens in the Edinburgh Herbarium, collected by the late Dr. Dickenson, proved to be the above species. On the second of September, Mr. Brown and myself found that plant growing abundantly at the above locality intermixed with a few plants of typical *Limonium*. This is a welcome addition to our Cheshire Flora.—H. S. FISHER.

Amaranthus albus and *A. retroflexus*, Linn. Both very sparingly, with *Setaria viridis*, *Polygonum elatum*, and other weeds, in an

arable field at Trevol, near Torpoint, E. Cornwall, September 19, 1876.—T. R. A. B.

Chenopodium ficifolium, Sm. Waste ground behind the houses on the East Cliff, Brighton, E. Sussex. August, 1876. I send this because this vice-county is left without authority for the species in 'Topog. Bot.'—J. L. WARREN.

Atriplex erecta, Huds., b. *erecta*, 'E. B.,' iii. On the coast, in dry, hard ground at G. Coppard's Gap, west of Brighton, W. Sussex. August, 1876. This is an unusual coast form, and generally grows in rich arable land. This coast plant is much fleshier than its inland congener. In this case a curious approaching to *Atriplex arenaria* is indicated.—J. L. WARREN. This seems the same as the Hammersmith plant noticed by Professor Dyer, which he and I supposed to be the true *A. erecta* of Hudson. The seeds of the Hammersmith plant sown in Balmuto-garden produced *A. angustifolia*, Smith, with non-serrated leaves and large sub-foliaceous perianth-segments.—J. T. BOSWELL.

A. triangularis, Willd. Aldrington Basin, near Brighton, Sussex. August, 1875.—J. L. WARREN. So I should name them.—J. T. BOSWELL.

A. sinuata, Hoff. Coast at G. Coppard's Gap, West Sussex. August, 1876. In the last report of the Exchange Club (see p. 23), I hinted that this plant was probably introduced in this station by ships' ballast. This year I have confirmed this fact, having discovered a dozen more plants near and around a large square black building used for the storing of grain, a furlong nearer Brighton than my three plants of last year. One day, seeing a ship unloading grain at this very point, I ascertained from the sailors that the cargo came from Russia. The plant has got a fair hold of the coast, and, if not unduly gathered, will spread. I regret my specimens are so poor, but I was too early this year for matured examples.—J. L. WARREN.

Rumex nemorosus, Schrad. (*trigranulate form.*) Hedgebank near Torpoint, E. Cornwall, July 31, 1876.—T. R. A. BRIGGS. I should name this plant as Mr. Briggs does. It seems to me the same as once sent from near Lewes by the Hon. J. L. Warren, named *R. rupestris*? So also I should name a plant sent by the Rev. Augustin Ley from Sellack, Herefordshire, August, 1876; but the *Rumex* sent by that gentlemen from river-side, Tintern, Monmouthshire, August, 1876, appears to me the ordinary form of *R. conglomeratus*.—J. T. BOSWELL.

R. viridis. Bramber, Sussex. August 26, 1876. I fancy this *Rumex* is clearly *viridis*, and not *conglomeratus*; yet it is as clearly as far on towards *conglomeratus* as it is easy to get without supposing hybridization. Observe how frequently two good-sized tubercles are developed, and occasionally three tubercles.—J. L. WARREN. Evidently *R. nemorosus a. viridis*.—J. T. BOSWELL.

R. viridi-conglomeratus. By the Mole, Hampton, Surrey. Oct., 1876. Unlike the specimen from Bramber, this seems to me a hybrid between the two species above named. It is a noteworthy plant, and deserves study. I have marked the root, and hope to

get better specimens another year. These were gathered too late.—J. L. WARREN. This plant looks like a hybrid from having only a few of the fruits arriving at maturity; it further differs from trigranulate *nemorosus* by its elongate sprawling branches.—J. T. BOSWELL.

Rumex (hybrid between *pulcher* and *conglomeratus*). Lewes, Sussex. August 9, 1876. I presume this is the same hybrid gathered by Mr. Briggs at Tothill, Plymouth, in 1873, and at Torpoint, East Cornwall, in the same year ('E. C. Report' for 1872-74, p. 34.) Both parents were handy when I gathered these specimens. I am able this year to supply root-leaves, which Mr. Briggs failed to find. These showing no affinity with *pulcher*, seem to establish that this cannot be a depauperized form of that species.—J. L. WARREN. This seems to be the same as the plant sent by Mr. T. R. A. Briggs from Torpoint, E. Cornwall, in August, 1873 (see 'Bot. Exch. Club Rep.,' 1872-74, p. 34.)—J. T. BOSWELL.

R. rupestris, Le Gall. Now that I have received good specimens and root-leaves of this plant from Mr. Briggs, I have formed the opinion that it is distinct from *R. nemorosus*. From the seeds of the Devon and Cornwall plant I raised numerous seedlings, the root-leaves of which looked more like those of *R. palustris* than of *R. nemorosus*. I am sorry to say none of them flowered, probably owing to the extremely cold and wet summer we have had here.—J. T. BOSWELL.

Rumex (hybrid between *pulcher* and *rupestris*.) Several roots in two spots on the shore of Whitsand Bay, E. Cornwall, growing with *R. rupestris*; *R. pulcher* occurring on the upper part of the cliffs, and also in the old pasture-land immediately above. July, 1876.—T. R. A. B. This comes very near the hybrid found at Torpoint, E. Cornwall, in 1873, mentioned in 'Bot. Ex. Club Report,' 1872-74, p. 34, which I thought likely to be *R. pulcher* and *R. conglomeratus*. The plant of 1876, however, differs in its much larger fruit sepals, of which all three are trigranulate in the specimen submitted to me. I think it most probable Mr. Briggs is right in regarding it as a hybrid between *pulcher* and *rupestris*.—J. T. BOSWELL.

R. sylvestris, Wallr. Damp spot, Kelvedon, Essex. September, 1876.—E. G. VARENNE. This plant seems to me not true *sylvestris*, but a hybrid between *obtusifolius* and *nemorosus*, or, possibly, *conglomeratus*.—J. T. BOSWELL.

R. obtusifolius, Auct., var. *sylvestris*, Wallr. Bank of Forth, between Causeway Head and Cambuskenneth, Co. Clackmannan. September 12, 1826. There is a good deal of this plant on the north bank of the river; unfortunately it escaped notice till late in the season, and then only a few poor specimens could be got.—T. DRUMMOND. I think this the same as the Putney plant.—J. T. BOSWELL.

R. obtusifolius, Auct., var. *Friesii*. Lewes, E. Sussex. August, 1876. One of the extreme forms.—J. L. WARREN. Amongst these we have other forms closely approaching the long-spined plant from Welwyn, Herts, distributed by Mr. Groves. ('Bot. Ex. Club Report,' 1875, p. 24.)—J. T. BOSWELL.

R. pratensis, M. & K. Kelso, Roxburgh. August, 1876. I send a few examples to show the usual form in this district, where it is common wherever *R. obtusifolius* and *R. crispus* grow near each other. I think there is no doubt of its being a hybrid. Unlike their reputed parents, very few of the seeds of this and *R. conspersus* come to perfection.—ANDREW BROTHERSTON.

Rumex conspersus, Hartin. Tweedside, Barnes, and Kelso, Roxburgh. August, 1876. Plentiful on Tweedside, near Kelso, mostly in gravelly places liable to be flooded, sometimes on the grassy banks of the river. Both of its reputed parents, *R. obtusifolius* and *R. aquaticus*, grow with it. I think there is little doubt of the hybrid origin of this plant. The variable appearance of the enclosed specimens, coupled with the small number of seeds that come to perfection in comparison with those of other members of the same genus, excepting *pratensis*, another hybrid, forces one to this conclusion.—ANDREW BROTHERSTON.

Rumex—hybrid? At the bottom of a coast-cliff, near Dundererry, St. Germans, E. Cornwall. July 24, 1876. A very curious plant, near *crispus* or *pratensis*. Much like the former in the greatly-waved leaves, though only the lower stem ones were noticed, the root-leaves being withered when it was found. The panicles grew very high. Some of the enlarged petals had short acute teeth. There was only one root at the spot. Probably a hybrid.—T. R. A. B. I think this must be referred to *R. crispus* var. *subcordatus*, Warren. It appears to fruit too freely to be a hybrid; still, as Mr. Briggs suggests, it may be one between *crispus* and *pratensis*.—J. T. BOSWELL.

R. crispus, Linn., var. *trigranulatus*, Boswell. Growing actually among shingles on the coast at Cliftonville, Brighton, Sussex. August 13, 1876. This is the ordinary littoral form of *crispus*, on the Sussex coast "dunes."—J. L. WARREN. Quite a common form of *crispus* on the stony and rocky coast-line in the neighbourhood of Plymouth, occurring, also, more inland, by tidal water.—T. R. A. B.

R. crispus, Linn., var. *subcordatus*, mihi. Lewes Levels, Sussex. August, 1876. This is a slight though curious variety of the plant which I have sent Dr. Boswell from the same station in previous years, and for which the above varietal name was suggested.—J. L. WARREN. A plant collected at Herne, Worthing, West Sussex, on August 10, 1876, by Mr. Warren, is also referred by Dr. Boswell to the same variety.—T. R. A. B.

R. crispus, Linn., var. *subcordatus*, mihi. Mr. Brotherston sends from Tweed-side, Kelso, August, 1876, the *exact thing* which I mean by my *subcordatus* of *crispus*. Another plant so labelled, from Tulliallen, Perth, collected by Mr. Drummond, is a good way off my type, though this form must be arranged also, I think, under the same varietal name. I should suspect Mr. Drummond's plants to grow on dry soil, ~~Mr. Brotherston's~~ on rich, damp, moist soil.—J. L. WARREN. Mr. Brotherston states this *subcordatus* to be more common than the typical *crispus* on Tweedside.—T. R. A. B.

"*R. Hydrolapathum*, Huds., var. with cordate bases to the

leaves, enlarged petals more or less denticulate." River bank, Kelvedon, Essex. 1876. E. G. VARENNE.—This seems to me the same as *R. maximus*, from Lewes, Sussex, and St. Germans, E. Cornwall. I raised numerous seedlings of the Sussex plant, and also had some sent me by Mr. H. C. Watson, but I am sorry to say they have all died off.—J. T. BOSWELL. Is not this *R. maximus*? That is a plant I know very little about—C. C. BABINGTON.

"*Rumex*, near *maximus*; one root with every variety of base to the root-leaves between cordate and attenuate." Ditch, King's Caple, Herefordshire. August, 1876.—AUGUSTIN LEY. This seems true *Hydrolapathum*, with which it agrees in the shape and size of the enlarged sepals. It is now established beyond a doubt that true *Hydrolapathum* does vary in the shape of the base of the root-leaves. In connection with this I may mention that the leaves of the seedling plants of the Sussex *maximus*, mentioned above, were undistinguishable from seedlings of the Thames-side plant of the same age. Both had the leaves rounded at the base, neither cordate nor attenuated.—J. T. BOSWELL.

"*Rumex maximus*." Barcombe, beyond the Mill. Riverside. Sussex. August 28, 1876. *Quâ* the panicles, this plant is even more like the continental specimens of "*maximus*" than the Lewes specimens, from which it grew distant some three or four miles. The perianths are more extreme both in shape and in serration. Yet the subjoined root-leaf, which clearly belonged to this panicle, is "*Hydrolapathum*." No doubt the plant is not a healthy one. Old Shoreham, West Sussex. August, 1876.—J. L. WARREN. The Barcombe plant is, I should say, unhealthy *Hydrolapathum*. I cannot see that it has the enlarged sepals of *maximus*. The Old Shoreham one I should also call *Hydrolapathum*. The fruit sepals are too long in proportion to their breadth for *R. maximus*,—they are triangular, not at all deltoid.—J. T. BOSWELL.

Polygonum Persicaria, Linn., b. *elatum*. Among weeds in an arable field, Trevol, near Torpoint, E. Cornwall, September 19, 1876. I sent this to Dr. Boswell as the *elatum* of 'E. B.,' ed. iii., but with the following remarks: 'I am somewhat doubtful about this, and shall be very glad of Dr. Boswell's opinion concerning it. It grew with *Setaria viridis* and one or two aliens (*Amaranthus retroflexus*, &c.), so perhaps sprang from seed introduced in some way.'—T. R. A. B. This is the plant which I mentioned under that name in 'E. B.,' ed. iii. It came up in vast quantities in Battersea Fields when they were being converted into Battersea Park, and had large quantities of mud from the bed of the Thames laid on them. It was accompanied by *Setaria viridis*, *S. italica*, *S. glauca*, *Echinochloa Crus-galli*, and other aliens.—J. T. BOSWELL.

Polygonum (? sp.) Side of the path by the Almond, below Cramond Bridge, Edinburgh. August 26, 1876. I shall be glad to know if this is *P. Persicaria* b. *elatum* of 'Lond. Cat.' Only one plant seen.—F. M. WEBB. Plant without glands, as in the *Persicaria* forms. It seems to me the same essentially as the Trevol examples, allowance being made for its having grown in a more confined situation.—T. R. A. B.

P. maculatum, "Dyer." Damp place, Kelvedon, Essex. September, 1876.—E. G. VARENNE.

Salix Russelliana, Sm. Banks of Teviot, Friars, Roxburgh. May and September, 1876. There are many large trees in this district, but apparently always planted. The Rev. J. A. Leefe confirms the name.—ANDREW BROTHERSTON.

Salix purpurea, Linn., c. *Lambertiana*. Shrewley, Warwick. May, 1876.—R. L. BAKER. Sent as *Woolgariana*, but the leaves are too large and broad for that variety.—T. R. A. B.

"*Salix Helix*." Tweedside, Hakerston, Roxburghshire. April, 1876.—E. HUTMACHER. The correctness of the name being doubted, this was not distributed, but specimens were sent to Dr. Boswell for his opinion.—T. R. A. B. Certainly not *S. Helix*, Sm., which has the elongate style and stigmas of *S. rubra* with the leaves of *S. purpurea*. I should call the Tweedside plant *purpurea genuina*.—J. T. BOSWELL.

S. ramulosa, Borr. = *S. Helix*, Andersson (*vide* Leefe.) Side of burn, Ednam, May and September, 1876, and hedge, Kelso, Roxburgh, April and September, 1876. This variable form, of which I send both male and female examples, is frequent and widely spread in this district.—ANDREW BROTHERSTON.

"*S. Smithiana*, Willd." Hedge near Plympton, S. Devon. June 3 and August 29, 1876.—T. R. A. B. This is *S. rugosa*.—J. T. BOSWELL.

S. cinerea, Linn., c. *oleifolia*, Sm. Hedge near Kingsand, E. Cornwall. May and September, 1876.—T. R. ARCHER BRIGGS.

S. nigricans, "Sm.," "b. *cotinifolia*." Shrewley, Warwickshire. May 16, 1876. This was sent to Dr. Boswell with the remarks, 'Leaves of the Kew *cotinifolia* are shorter, rounder, and less acuminate. Similar differences appear in the plate of *cotinifolia*, in E. B., ed. iii. Is not this *Forsteriana*?—T. R. A. B. Certainly not *cotinifolia*; probably, as Mr. Briggs suggests, *Forsteriana*.—J. T. BOSWELL.

S. nigricans, Sm., f. *Damascena*. Shrewley Pool, Warwickshire. May and September, 1876.—H. BROMWICH. Rightly named, I think.—J. T. BOSWELL.

Typha (? sp.) Shallow pool in the Tavy Valley, near Lopwell, S. Devon. July 27, 1876. I suppose *angustifolia* by the narrow leaves, &c., but the larger of the spikes seems in some measure to approach *T. latifolia*. In other cases I have also noticed intermediate features in *Typha* specimens collected in this neighbourhood.—T. R. A. B. This comes very near the *T. latifolia* β . *media*, but it is nearer the genuine *latifolia* than the Wimbleton plants mentioned in 'E. B.,' ed. iii.—J. T. BOSWELL.

Potamogeton polygonifolius, Pour. (deep-water form.) Deep pool, Erme Valley, Dartmoor, S. Devon, June, 1876.—T. R. ARCHER BRIGGS. This approaches var. *pseudo-fluitans*, but has fewer submerged leaves. The most characteristic specimens of var. *pseudo-fluitans* that I have seen are in the Edinburgh Herbarium, from the River Leven, near Loch Lomond, but the name of the collector was not given.—J. T. BOSWELL.

P. nitens, Web. I send examples of this pond-weed (gathered in June, July, and August, 1875-6) from different parts of the Tweed and Teviot, where it is very common, I may say abundant, in the counties of Roxburgh, Berwick, and Northumberland. It is variable in appearance, like others of the family, as will be seen from specimens sent. In the description of the leaves in 'Student's Flora,' *recurved* is surely a misprint for *incurved*.—ANDREW BROTHERSTON. Very luxuriant specimens.—J. T. BOSWELL.

"*Potamogeton lucens*, Linn., b. *decipiens*." In the Wye, Sellack, Herefordshire. August 12, 1876.—AUGUSTIN LEY. I should like much to see a series of specimens of this plant, particularly some in fruit, and with the barren branches fully developed. I am inclined to name it *P. nitens*, though the leaves are less amplexicaul than they usually are in that plant, but they are too much so for *P. lucens*. The serrated margins of the leaves and the small spikes separate it from *P. decipiens*.—J. T. BOSWELL.

P. lucens, Linn., β . *acuminatus*. Bramber, Sussex. August 26, 1876. Sent to point the query whether all young shoots of ordinary "*lucens*" are not "*acuminatus*," as young plants of "*crispus*" are "*serratus*."—J. L. WARREN. Rightly named "*acuminatus*," but *acuminatus* is not a young state of ordinary *lucens*, at least when growing in lakes or pools, as I can testify, from having observed the plant both in Berwickshire and Fifeshire.—J. T. BOSWELL.

P. pusillus, Linn., b. *tenuissimus*. Brick ponds near York. August, 1876.—G. WEBSTER.

Zannichellia palustris, *eu-palustris*. Syme, E. B. Near Stonebridge, Warwick. July, 1876.—J. BAGNALL. Miller's Dale, Derbyshire. August, 1876.—CHARLES BAILEY. In the Cudbeck, below Sowerby, Thirsk, N. E. Yorkshire, July, 1876.—T. J. FOGGITT. Mottisfont, S. Hants, August, 1876.—H. GROVES. Barcombe and Burgess Hill, Sussex.—J. L. WARREN. All the above certified as *eu-palustris* by Dr. Boswell.—T. R. A. B.

Z. pedicellata, Fries. Long Annet Point, Culross, Perth. August 26, 1876.—TOM DRUMMOND. These are the first Scotch specimens of *Z. pedicellata* that I have seen. It is recorded, however, from "left bank of the Frith, between Glencaple and Caerlaveroch, by A. C. Balfour, in 'Trans. Bot. Soc. Edinburgh,' vol. xii., p. 60.—J. T. BOSWELL.

Z. pedicellata, Fries. Brackish ditch near Gravesend, West Kent, June, 1876.—H. & J. GROVES. Marshes below Woolwich, Kent, July, 1876.—EYRE DE CRESPIGNY. Pool, Seaton Estuary, E. Cornwall, 1876.—T. R. A. BRIGGS.

Z. polycarpa, Nolte. Brackish marsh near Belfast, Ireland.—S. A. STEWART. (Named by Dr. Boswell.) The plant I send to the Club was collected by me as *Z. brachystemon*, though the very short style and narrow carpels should have enlightened me; it is abundant in the brackish ditches of the ground reclaimed from the sea, adjoining the People's Park, Belfast. There were few flowers at the time, but the following I find on my notes: "Anther filaments about one-eighth inch long." Little attention seems to have

been given to the Irish *Zannichellia*. Here, in my district, they are rare.—S. A. STEWART. This is *Z. polycarpa*, Nolte, apparently the true plant, of which I have been favoured with a specimen from Mr. H. C. Watson, collected by Prof. Reichenbach at Nolte's station, Heiligenhavn, Schleswig, which is a stouter plant, with more connivent, longer, smoother, and more sausage-like carpels with shorter styles than in the Orkney plant, which is no doubt var. *tenuissima*, Fries.—J. T. BOSWELL. *Zannichellia polycarpa*, from Belfast. Very interesting.—C. C. BABINGTON.

Ruppia rostellata, Koch. Tidal ditch, Plymouth, S. Devon. August, 1876.—W. B. WATERFALL. Rightly named.—J. T. BOSWELL.

Habenaria viridis, Brown. Elevated rough pasture between Plympton and Dartmoor, S. Devon. July 15, 1876. Previously found this year on the border of Dartmoor, near Tavistock, by Mr. Francis Brent, of Plymouth.—T. R. A. B.

Ophrys aranifera, Huds. Near Hartlip, Kent. April 24, 1876. In writing labels for my specimen of *Ophrys aranifera*, I have not attempted to distinguish Smith's *O. fucifera*, as I cannot consider the slight and uncertain difference worthy of botanical recognition to the extent of applying two names.—F. M. WEBB.

Epipactis latifolia, Auct. Hill Wootton, Warwick. August, 1876.—H. BROMWICH. This plant was labelled *violacea*. Being doubtful as to the correctness of the name, I withheld it from distribution, and sent a specimen or two to Dr. Boswell.—T. R. A. B. This is *E. latifolia*, not *violacea*, Durand-Daquesnay. *E. media*, Bab., but not *E. media*, Fries, according to Prof. Reichenbach, the authority for Orchidaceæ.—J. T. BOSWELL.

Trichonema Columnæ, Reich.—Still abundant on Dawlish Warren in April, 1876. I looked for it there in vain on March 23rd, the season being late. On April 26th, it was just opening into flower in two widely-separated parts of the warren, not a single specimen (that I could find) yet fruiting. By May 24th the plant had almost wholly disappeared, Mr. Briggs and I on that day having to search for an hour or more before we came on a few withered specimens (in fruit.)—W. MOYLE ROGERS. I am glad to find that this is still to be found. I had been told that it was extirpated.—C. C. BABINGTON.

Allium carinatum, Linn. Banks of Esk, above Musselburgh, in large quantity. September 18, 1876.—A. CRAIG-CHRISTIE.

Carex disticha, Huds. Stapleford meadows, S. Wilts. In water, mostly stagnant. 1876.—W. MOYLE ROGERS. New to vice-county.

C. Boeninghausenia, Weihe. Eskalt, near Whitehaven. Found by Mr. Hodgson, and sent to me by Rev. R. Wood, of Westward, who thought it nearer "*avillaris*." After carefully examining the specimens, it seemed to me to be *Boeninghausenia*. I sent a specimen to Mr. H. C. Watson, with the query, '*Avillaris* or *Boeninghausenia*?' His reply was, 'The *Carex* is *Boeninghausenia*.'—A. BENNETT.

C. curta, Good., b. *alpicola*. Above Canlochan Glen, Forfarshire.—AUGUSTIN LEY. I sent this to Dr. Boswell, with the note,

'These specimens appear to me to be quite as near *genuina* as to *b. alpicola*. The length of the foliaceous bracts at the base of some of the spikes is a peculiar feature.'—T. R. A. B. This is all we have to represent *alpicola* in Scotland, and when cultivated it scarcely is to be distinguished from ordinary *curta*. I have some doubts if we have true *C. vitilis* in Britain.—J. T. BOSWELL.

Carex ovalis, Good., b. *bracteata*. Damp meadows near Lyss Station, Hants. June, 1873.—F. TOWNSEND. This is the same as Mr. T. Westcombe's plant from Castle Morton Common, Worcestershire, on which the variety was founded.—J. T. BOSWELL.

C. aquatilis, Wahl. Clova Mountains, Forfarshire. July 1, 1874.—AUGUSTIN LEY. This is *C. aquatilis genuina*, 'E. B.,' ed. iii., equal to *C. aquatilis*, var. 2 *minor*, Boot, Hooker's 'Student's Flora,' p. 413.

C. aquatilis, Wahl., b. var. *Watsoni*, Syme. Tweedside, Makers-toun, Roxburgh, June, 1876, and near Caddonfoot, Selkirk, June, 1876. This in many parts is the commonest sedge on Tweedside, occurring in long narrow beds close to the edge of the river. I have seen it also in both the counties of Berwick and Northumberland (Cheviotland.) Apt to be confounded with *C. acuta*.—ANDREW BROTHERSTON.

C. aquatilis, Wahl., b. *Watsoni*. Banks of the Thurso River, Caithness. July, 1875. Clyde side at Kenmure, 5 miles above Glasgow, June, 1876.—G. HORN. This seems really to be the type of the species.—J. T. BOSWELL.

C. punctata, Gaud. Near St. Austell, Cornwall. June, 1876.—J. CUNNACK. From the long-known Cornish station.—T. R. A. B.

C. xanthocarpa, Degland.; *C. fulva*, var. *sterilis*, 'E. B.,' ed. 3, vol. x., p. 153; *C. fulva*, Koch et Auct. plur. (non Smith). Marsh at Piggarr, Swanbister, Orphir, Orkney. August, 1875. I found one or two tufts of this growing in company with *C. flava* and *C. fulva* (*Hornsuchianana*, Hoppe.) I have no doubt it is a hybrid between these two plants. It grows in much denser tufts than the latter, and the herbage is of a paler and yellower green; but its affinities and habit agree with *fulva*, Sm., not with *flava*, L. (See Mr. R. A. Pryor's remarks on this in 'Journal of Botany,' 1876, p. 366–370.) My experience has agreed with that of the late M. Boreau, for the plant has remained unchanged under cultivation for two years, but it has produced no mature fruit. The perigynium, either in the wild or in the cultivated Orkney plant, has not become inflated; the differences which *C. xanthocarpa* exhibits in different localities,—in some approaching more towards *C. flava*, and in others to *C. fulva*,—are indications of its hybrid origin, as well as its intermediate characters and habit, and, above all, its abortive fruit. The Orkney specimens are the only British ones of *C. xanthocarpa* that I have yet seen.—J. T. BOSWELL.

Anthoxanthum Puelii, Lec. et Lam. On peaty ground, near the south-eastern extremity of Lindow Common, Hundred of Macclesfield, Cheshire, the rifle-range being about a quarter of a mile N.W. August 26, 1876. (*Vide* 'Journ. Bot.,' October, 1876, p. 309.) It grew freely on peaty ground, which, I am of opinion, from its

appearance, originally formed part of the adjacent waste bog, but has been reclaimed at some distant date. It is crossed by a cart-track, apparently used for conveying turf from the moss. Most of the ground in question was covered with grass and weeds, but there were some patches of potatoes. Extending over a length of from twenty to thirty yards, the *Anthoxanthum* grew in fair quantity, with all the appearance of being native, among grass and common weeds (no introduced plants.) It is, however, possible it may have been introduced with grass-seed. On closer examination of the specimens, I find some differ slightly from the example gathered by Mr. Briggs, and furnished me through the Exchange Club, in having all the parts rather larger, and the spikes and whole plant more robust. The peculiar scent is also stronger. All these differences may, however, be owing to the richness of the peat-soil on which they grew. The seeds of this grass may probably have been introduced when this part of the old bog was reclaimed.—ROBERT BROWN.

Phalaris minor and *P. paradoxa*. Kelso, Roxburgh. July, 1876. Both casuals in this district; introduced with wool, and also, I think, with seeds. *P. canariensis* grows in the same localities.—ANDREW BROTHERSTON.

Alopecurus fulvus, Sm. South-west margin of the mill-pool at Vale Bridge Common, near Hayward's Heath, East Sussex. September 2, 1876. There is no record for East Sussex in 'Topog. Bot.'—J. L. WARREN.

Polygonum littoralis, Sm. Plumstead Practice-ground, Kent. Coll., Jos. B. French. I am sorry I cannot give the date of collection of these specimens, but I believe it to be 1848. I am not aware that the plant has been gathered at Plumstead since alterations of the ground.—F. M. WEBB.

Aira caryophyllea, Linn., var. *aggregata*, E. B., ed. iii. Hedge-bank near Caulstone, S. Devon. July, 1876.—T. R. ARCHER BRIGGS.

Sclerochloa procumbens, Beauv., var. Specimens of a perfectly upright form from clay fields, Kirkdale, north of Liverpool. September, 1874. The type is common in similar situations both sides of the Mersey; but the plant sent is so distinct in its general appearance as to render it worthy of notice. Besides the different habit of growth, the whole plant is far less rigid in its character.—H. S. FISHER. A curious form. I have one like it from Scarborough Pier, collected by Crawford.—J. T. BOSWELL.

Poa suletica, Haenke. In June, 1876, I found this grass near the under end of two of the densely-wooded deans above Hundalee Mill, on the Jed, which extends its range in this district about twelve miles in a southerly direction.—ANDREW BROTHERSTON.

Festuca ambigua, Le Gall. Seed from plants gathered on sides of Gala, Selkirk, July, 1873, and grown in garden, June, 1876; and a few specimens for comparison, raised from seed of specimens received from Dr. Boswell. They were grown alongside of each other. Those from Dr. B.'s plant were stronger and more erect in habit than the Gala plants when growing.—ANDREW BROTHERSTON.

Bromus asper, Murr., var. Southwick, W. Sussex. August 13,

1876. Not true *Benekenii* (*i.e.*, not the Kensington Garden plant), but off the *serotinus* type in the *Benekenii* direction. Interesting as being a small example of *serotinus*, and yet with several lowest-node panicle branches, it being usually only the full and luxuriant specimens of *serotinus* which develop extra branchlets. The pales seem rather more equal than in ordinary *serotinus* also, and rather more uniformly hairy.—J. L. WARREN. I believe that the two forms, *serotinus* and *Benekenii*, are too much connected by intermediates to permit them to be ranked as more than varieties.—J. T. BOSWELL.

Brachypodium pinnatum, Beauv., b. *pubescens*. Chalky banks near Ringwold, Kent, J. F. Duthie, July, 1876; and Clayton Tunnel, Brighton, Sussex, J. L. Warren, August, 1876. The pubescent form of *B. pinnatum* is certainly less common than the glabrous, but appears to be widely distributed. I have had it from Rev. T. A. Preston, from near Marlborough, Wilts.—J. T. BOSWELL.

Triticum "pungens", Pers." Roadside near tidal water, St. John's, E. Cornwall. July 31, 1876.—T. R. ARCHER BRIGGS. *T. acutum*, the form it assumes when growing in firm soil. Other specimens of *pungens* sent are correctly named.—J. T. BOSWELL.

Lepturus incurvatus, Trin. Ballast, Birkenhead, Cheshire. July 18, 1876.—J. W. BURTON.

Hordeum sylvaticum, Huds. In two small woods, about two miles apart, and a mile from Bishop Auckland. Only recorded from two localities in South Durham. August 8, 1876.—J. P. SOUTTER.

Equisetum variegatum, Schleich., c. *Wilsoni*. Though so near *trachyodon* in character, yet this has a very different appearance when growing. The latter, I have observed, grows in rather a straggling manner, the former in large dense tufts of a dark green colour. The stems are more slender, and do not branch as much as in *trachyodon*.—S. A. STEWART.

Chara syncarpa, Thuill., var. *opaca*, Agardh. Mitcham Common, near Croydon, Surrey. May, 1876. Professor Babington, who kindly examined several *Charas* for me, named these specimens as above.—A. BENNETT.

C. "aspera." Folkstone (the Warren), Kent. August, 1876. R. L. BAKER. Professor Babington kindly called my attention to the erroneous name given to this *Chara* by remarking: "Surely it is only *C. hispida*."—T. R. A. B.

[Received from Dr. BOSWELL too late for insertion in the proper place.]

Senecio vulgaris, var. *hibernicus*, *mihi*. I now think the Cork plant, to which I gave the above name, must be *S. vernalis*, Waldstein and Kitabel. Until this spring, I have never succeeded in getting it to survive the winter out of doors; but now it is in flower in the open ground, and has a very different habit from the unbranched individuals grown in pots, on which my opinion of its

being a radiate form of *S. vulgaris*, L., was founded. It is, when well developed, a much-branched plant, with larger heads than *S. vulgaris*, and longer peduncles; the heads droop less than in examples of *S. vulgaris* of similar size, and the achenes are more oblong-fusiform, and the ligulate florets of the ray become revolute in the evening. I do not find this noticed in descriptions of *S. vernalis*; but it appears to occur in the allied species, for example, in the Madeira *S. incrassatus*, Lowe (*S. crassifolius*, β . *Lowei*, D.C.), Lowe 'Fl. Mad.,' p. 446; also in *S. coronopifolius*, Desf., and *S. leucanthemifolius*, Poir. (teste 'Boissier Fl. Or.,' vol. iii., p. 388.) The Cork plant agrees with Hungarian specimen of *S. vernalis*, but not with one from Smyrna (Balansa, No. 241); but Boissier says of it (*l. c.*), "Species foliorum divisione, caulibus plus minus elongatis et in excelsioribus nanis valde polymorpha." If the Cork plant be *S. vernalis*, it cannot well be indigenous, as the species is confined to S. E. Europe.—J. T. BOSWELL, May 17, 1878.

T. R. ARCHER BRIGGS,

Curator.

January 3, 1878.

THE
BOTANICAL EXCHANGE CLUB.

LIST OF DESIDERATA

FOR 1877.

CLUB REGULATIONS AND LIST OF MEMBERS.

L O N D O N :
RANKEN & CO., PRINTERS, DRURY HOUSE,
ST. MARY-LE-STRAND.

—
1877.



REGULATIONS OF THE CLUB.

1. The object of the Botanical Exchange Club is to facilitate the exchange of dried specimens of British plants, especially of critical species and varieties. Anyone wishing to become a member will be admitted on payment to the Secretary of an annual subscription of Five Shillings, and on sending a parcel of dried plants in accordance with the subsequent rules. He will then be entitled to share in the distribution of specimens made in the early part of the year following that in which his subscription and parcel were sent.

2. Specimens sent for distribution must be carefully dried; must not exceed in size half-a-sheet of demy (16 by 10 inches); and must illustrate the species they represent as completely as possible. Plants more than sixteen inches long should be once or twice folded, if by so doing the roots can be preserved. (In the *Cyperaceæ*, *Gramina*, and smaller Ferns no specimens should be sent without roots, except in the case of very rare species, which might be in danger of extermination.) No plant must be sent that is not included in the list of desiderata for the current year, unless it be additional to those enumerated in the 7th edition of the "London Catalogue of British Plants," or be from an unrecorded station, or be an unrecorded variety.

3. *Each specimen* must have a label, bearing the number and name of the species as given in the 7th edition of the "London Catalogue"; also the locality and county where, and the date when, the specimen was collected, and the collector's name. The label should be affixed to the specimen by cutting a transverse slit in the base of the label through which the specimen may be pushed. Any facts connected with a species which the sender thinks important and suitable for the "Report" should be communicated on a separate piece of paper,

written on one side only. Such piece of paper should be about seven inches wide, and the notes on each species should be dated and signed by the writer. Specimens sent not in accordance with Rules 2 and 3 will be destroyed.

4. Each parcel should be accompanied by a list of the plants the member wishes to receive from the Club. This list is to be made by drawing a short line before their names in the 7th edition of the "London Catalogue."* Species especially wished for should have a ! before the horizontal line. The name of the member and address to which the return parcel is to be sent, and any special directions as to how the parcel is to be sent, should be written on the outside of the Catalogue. When the same copy of the Catalogue is used at second time the species which are no longer wanted, but which were marked the first time, should have a perpendicular line drawn through the horizontal line. Manuscript lists of desiderata will not be received.

5. Parcels may be sent (*carriage paid*) to any of the following gentlemen not later than the 31st of December:—Dr. Boswell, Balmuto, Kirkealdy, Fife; Mr. T. R. A. Briggs, 4, Portland Villas, Plymouth; Mr. J. G. Baker, Kew Herbarium; and Mr. Charles Bailey, care of Ralli Brothers, Peter Street, Manchester. Those that arrive after that date will not be available for the distribution for the current year. Members sending more valuable parcels will have their return parcels selected before those who send inferior ones.

6. Members who do not send parcels, but who have been members of the Botanical Exchange Club previous to 1872, and paid their subscription for the current year before December 31st, will share in the annual distribution; but the specimens for such non-contributing members will not be selected until the parcels of all the contributing members have been made up, and they cannot be selected according to lists of desiderata; but *general* instructions, such as the desire to receive plants of particular districts, natural orders, or genera, will be attended to by the distributor. In future no new members will be received by the Botanical Exchange Club except those who contribute specimens of plants.

* Published by Mr. R. Hardwicke, 192, Piccadilly, London, W. (Price 6d., post-free 7d.)

LIST OF MEMBERS, 1877

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T. R. ARCHER BRIGGS, F.L.S.,
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Kew Herbarium, and 23, Gloucester Road, Kew.

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Soutter, J. P.	Bishop Auckland.
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Townsend, F., M.A.	Honington Hall, Shipston-on-Stour.
Trimen, H., M.B., F.L.S.	British Museum, London, W.C.
Tucker, R., M.A.	27, Cantlowes Road, Camden Square, N.W.

Varenne, E. G...	.. .. .	Kelvedon, Essex.
Warner, F. I., F.L.S...	.. .. .	20, Hyde Street, Winchester.
Warren, Hon. J. L., M.A...	.. .. .	67, Onslow Square, Brompton, London, S.W.
Waterfall, W. B...	.. .. .	14, Sea View Terrace, Plymouth.
Webb, F. M.	.. .. .	Royal Botanic Gardens, Edin- burgh.
Webster, G...	.. .. .	Holgate Nursery, York.
Whittaker, J.	.. .. .	Morley, Derby.
White, C. F., F.L.S.	.. .. .	42, Windsor Road, Ealing.

LIST OF DESIDERATA FOR 1877.

N.B.—Of any of the species in the following List, specimens varying in number from 10 to 50, according to its degree of rarity, will be acceptable.

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| <p>Thalictrum flexuosum.
 majus, var. a.
 Kochii.
 saxatile.
 riparium.
 Morisonii.
 nigricans.
 angustifolium.</p> <p>Anemone apennina.
 ranunculoides.</p> <p>Adonis autumnalis.</p> <p>Ranunculus Bachii.
 truncatus.
 elongatus.
 radians.
 Godronii.
 marinus.
 salsuginosus.
 ophioglossifolius.
 reptans.
 vulgatus.
 tomophyllus.
 parvulus.
 chærophyllus.</p> <p>Caltha minor.
 radicans.</p> <p>Delphinium Ajacis.
 Consolida.</p> <p>Pæonia corallina.</p> <p>Epimedium alpinum.</p> <p>Nuphar intermedia.
 pumila.</p> <p>Papaver somniferum.</p> <p>Glaucium violaceum.
 phœniceum.</p> <p>Chelidonium laciniatum (<i>sponte</i>).</p> <p>Fumaria Boræi.
 muralis.</p> | <p>Sinapis incana.</p> <p>Brassica Napus.
 Rutabaga.
 sylvestris.
 Briggsii.
 Cheiranthus.</p> <p>Sisymbrium Irio.</p> <p>Matthiola incana.</p> <p>Dentaria bulbifera.</p> <p>Arabis ciliata.
 hispidula.
 Turrita.</p> <p>Barbarea arcuata.
 intermedia.</p> <p>Nasturtium siifolium.</p> <p>Armoracia rusticana (fruit).</p> <p>Cochlearia (any abnormal forms).</p> <p>Draba inflata.
 muralis.
 aizoides.</p> <p>Camelina sativa.
 sylvestris.</p> <p>Thlaspi sylvestre.</p> <p>Helianthemum Breweri.
 vineale.
 grandiflorum.</p> <p>Viola permixta.
 sepicola.
 calcareæ.
 arenaria.
 lactea.
 intermedia.
 stagnina.
 Curtisii, vars. a, b, and c.</p> <p>Drosera obovata.</p> <p>Polygala grandiflora.
 oxyptera.
 austriaca.</p> |
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- Polygala uliginosa.
 Frankenia lævis.
 Dianthus glaucus.
 Caryophyllus.
 Lychnis alpina (England).
 Holosteum umbellatum.
 Cerastium holosteoides.
 pentandrum.
 alpestre.
 pubescens.
 nigrescens.
 Andrewsii.
 Arenaria Lloydii.
 norvegica.
 ciliata.
 Alsine rubella.
 hybrida.
 uliginosa.
 Sagina alpina.
 nivalis.
 Spergularia media.
 Herniaria glabra (Eastern counties).
 Scleranthus biennis.
 Claytonia alsinoides.
 Elatine Hydropiper (fruit).
 Hypericum angustifolium.
 linarifolium.
 hircinum (*sub-sponte*).
 elatum (*sub-sponte*).
 Althæa hirsuta.
 Lavatera sylvestris.
 Malva borealis.
 parviflora, *L.*
 Tilia grandifolia (*sponte*).
 parvifolia (fruit).
 Geranium prostratum.
 lancastriense (*sponte*).
 modestum.
 purpureum.
 Erodium chærophyllum.
 Ulex nanus.
 Sarothamnus prostratus.
 Lupinus perennis.
 Ononis repens.
 reclinata.
 Anthyllus Dillenii.
 Medicago apiculata.
 minima.
 lappacea.
 Trifolium suffocatum.
 Townsendi.
 filiforme (Scotland).
 Oxytropis Halleri.
 Astragalus alpinus.
 Ornithopus ebracteatus.
 Vicia gracilis.
 Bobartii.
 bithynica, var. *b.*
 Orobus (fruit).
 Lathyrus tuberosus.
 palustris (fruit).
 acutifolius.
 Lathyrus sphæricus.
 Orobus niger.
 Aremonia agrimonioides.
 Prunus insititia.
 domestica.
 Spiræa salicifolia.
 Alchemilla conjuncta (*sponte*).
 Potentilla verna.
 norvegica.
 Fragaria elatior (*sub-sponte*).
 Rubus Leesii.
 suberectus.
 plicatus.
 affinis.
 lentiginosus.
 Lindleianus.
 incurvatus.
 imbricatus.
 ramosus.
 latifolius.
 pubescens.
 thyrsoides.
 Grabowskii.
 Colemanni.
 Salteri.
 calvatus.
 carpinifolius.
 villicaulis.
 derasus.
 adscitus, *Genev.*
 macrophyllus.
 Schlectendalii.
 amplificatus.
 glabratum.
 Borreri.
 Bloxamii.
 Hystrix.
 pygmæus.
 scaber.
 mutabilis.
 Leightoni.
 denticulatus.
 Kœhleri (*verus*).
 infestus.
 pallidus.
 fusco-ater.
 Briggsii.
 Lejeunii.
 pyramidalis.
 Guntheri.
 humifusus.
 foliosus.
 Bellardi.
 hirtus.
 Balfourianus.
 conjungens.
 purpureus.
 althæifolius.
 tuberculatus.
 cæsius, vars., named.
 Chamæomorus (Wales).
 Dryas depressa.

Rosa rubella.
 Doniana.
 Robertsoni.
 Smithii.
 lævigata.
 Moorei.
 occidentalis.
 cordifolia.
 Grovesii.
 pomifera.
 cærulea.
 suberecta.
 farinosa.
 scabriuscula.
 sylvestris.
 obovata.
 permixta.
 sylvicola.
 Briggsii.
 Hystrix.
 sepium.
 Billietii.
 cryptopoda.
 pulverulenta.
 surculosa.
 sphærica.
 senticosa.
 biserrata.
 frondosa.
 dumetorum.
 pruinosa.
 incana.
 tomentella.
 obtusifolia.
 latebrosa.
 aspernata.
 collina.
 concinna.
 decipiens.
 subcristata.
 Hailstoni.
 implexa.
 coriifolia.
 Watsoni.
 celerata.
 Borreri.
 Bakeri.
 marginata.
 systyla.
 leucochroa.
 Desvauxii.
 opaca.
 Monsoniæ.
 bibracteata.
 austriaca.
 Coloneaster vulgaris.
 Mespilus germanica.
 Pyrus torminalis.
 latifolia.
 scandica.
 semipinnata.
 fennica.

Pyrus Pyrastrer.
 Achras.
 Briggsii.
 Lythrum Hyssopifolia.
 Epilobium anagallidifolium.
~~Æ~~nothera biennis. OE
 odorata.
 Isnardia palustris.
 Circeæ intermedia (lutetiana).
 intermedia (alpina).
 Myriophyllum pectinatum.
 Callitriche verna (fruit).
 obtusangula.
 truncata.
 autumnalis.
 Ribes sylvestre.
 Smithianum.
 spicatum.
 Sedum teretifolium.
 micranthum.
 dasyphyllum.
 sexangulare.
 albescens.
 rupestre.
 Forsterianum.
 Sempervivum tectorum (*quasi-sponte*).
 Saxifraga stellaris, var. vivipara.
 Geum, vars. (Irish).
 hirsuta.
 umbrosa.
 cernua.
 cæspitosa.
 Sternbergii.
 decipiens.
 sponhemica.
 Astrantia major.
 Eryngium campestre (Kent).
 Helosciadium repens.
 Moorei.
 Trinia vulgaris.
 Sium latifolium.
 Bupleurum aristatum (Sussex).
 Cenanthe silaifolia (root-leaves).
 Siler trilobum.
 Meum Athamanticum.
 Peucedanum palustre.
 Tordylium maximum.
 Caucalis latifolia.
 Chærophyllum sativum.
 Coriandrum sativum.
 Cornus suecica.
 Lonicera Caprifolium.
 Linnæa borealis.
 Galium erectum.
 Mollugo, vars. b and c.
 nitidulum.
 elongatum.
 anglicum.
 Vaillantii.
 Asperula arvensis.
 taurina.
 Valeriana pyrenaica.

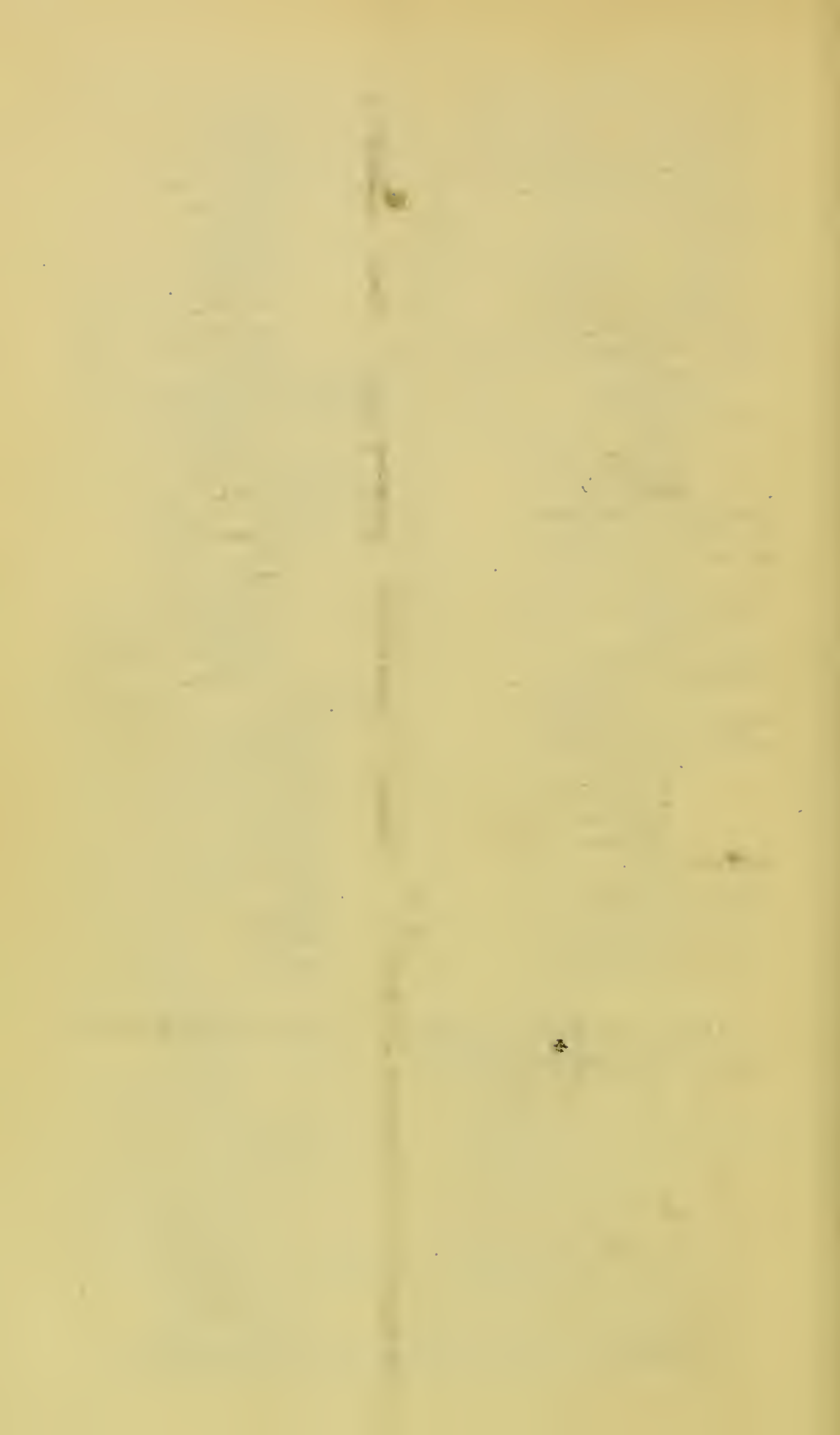
- Valerianella carinata.
 mixta.
 ericarpa and b. glabra.
 Carduus pycnocephalus, *Jacq.*
 polyanthemos.
 litigiosus.
 tuberosus.
 setosus.
 hybridi (any).
 Arctium intermedium.
 nemorosum.
 Saussurea alpina.
 Centaurea solstitialis.
 paniculata.
 Matricaria inodora, vars. b and c.
 Anthemis anglica.
 Diotis maritima.
 Filago apiculata.
 Gnaphalium pilulare.
 luteo-album.
 norvegicum.
 hyperboreum.
 Senecio vulgaris, var. hibernica.
 paludosus.
 palustris.
 maritima.
 Bidens radiata.
 hybrida.
 Inula salicina.
 Aster salignus.
 Hypochaeris Balbisii.
 Picris arvalis.
 Tragopogon grandiflorus.
 porrifolius (*sub-sponte*).
 Taraxacum lævigatum.
 Lactuca Scariola.
 Mulgedium alpinum.
 Sonchus glabra.
 palustris.
 Crepis setosa.
 succisifolia.
 nicaensis.
 Hieracium. (Any named by competent
 authority, except—
 Pilosella.
 murorum.
 vulgatum (type).
 umbellatum.
 boreale.
 Phyteuma spicatum.
 Campanula latifolia purpurea.
 persicifolia (*sub-sponte*).
 Rapunclus.
 Vaccinium uliginosum.
 Arctostaphylos alpina.
 Arbutus Unedo (*sponte*).
 Loiseleuria procumbens.
 Menziesia polifolia.
 cærulea.
 Pyrola rotundifolia.
 secunda.
 uniflora.
 Monotropa hirsuta.
 Erythæra latifolia.
 Cicendia pusilla.
 Gentiana nivalis.
 germanica.
 Cuscuta Epilinum.
 Solanum miniatum.
 Verbascum pulverulentum.
 Lychnitis.
 Blattaria.
 hybrida (any).
 Scrophularia Ehrharti.
 Scorodonia.
 Linaria Pelisscriana.
 repens, var. b.
 speciosa.
 purpurea (*sub-sponte*).
 Veronica verna.
 spicata.
 hirsuta.
 tonella.
 Euphrasia officinalis, vars.
 Bartsia rotundata.
 Rhinanthus major.
 Melampyrum cristatum.
 ericetorum.
 Orobanche arenaria.
 cærulea.
 caryophyllacea.
 elatior.
 Picridis.
 amethystea.
 Mentha alopecuroides (*sponte*).
 sylvestris, vars. b and c.
 vulgaris.
 pubescens.
 citrata, flowers (*quasi-sponte*).
 hirsuta, var. b.
 sativa, var. subglabra, *Baker*.
 rubra.
 gracilis.
 cardiaca (*quasi-sponte*).
 pratensis.
 gentilis, vars.
 arvensis, vars. b, c, d, e, f.
 erecta.
 Thymus Serpyllum, forms of.
 Chamædrys.
 Origanum macrostachyum.
 Calamintha Briggsii.
 Salvia clandestina.
 pratensis.
 Ballota ruderalis.
 Stachys germanica.
 Galeopsis intermedium.
 ochroleuca.
 bifida.
 Lamium intermedium.
 decepiens.
 Ajuga pyramidalis.
 Teucrium Botrys (*Sanderstead*).
 Scordium.

- Pulmonaria officinalis.
 Lithospermum purpureo-cæruleum.
 Myosotis strigulosa.
 alpestris (England).
 umbrosa.
 Mittenii.
 Anchusa officinalis.
 Asperugo procumbens.
 Pingucula graniflora.
 alpina.
 Utricularia neglecta (flowers).
 minor (flowers).
 intermedia (flowers).
 Bremii.
 Primula scotica, var. b.
 Cyclamen hederifolium.
 Lysimachia thyrsiflora.
 punctata.
 ciliata.
 Anagallis cærulea.
 Armeria duriuscula.
 Statice pyramidalis.
 Dodartii.
 caspia.
 Plantago Timbali.
 hirsuta.
 arenaria.
 Amaranthus Blitum.
 Salicornia procumbens.
 radicans.
 Chenopodium cymosum.
 ficifolium.
 urbicum.
 intermedium.
 botryoides.
 glaucum.
 Atriplex erecta, vars. a and b.
 prostrata.
 Smithii.
 triangularis.
 rosea, L.
 Rumex conglomeratus, forms of.
 rupestris.
 viridis, forms of.
 Warrenii.
 palustris.
 pulcher.
 obtusifolius, forms of.
 conspersus.
 elongatus.
 trigranulatus.
 aquaticus.
 maximus.
 alpinus.
 hybrida (any).
 Polygonum agrestinum.
 microspermum.
 rurivagum.
 littorale.
 maritimum.
 elatum.
 maculatum.
 viviparum.
- Hippophaë rhamnoides.
 Daphne Mezereum (leaves).
 Asarum europæum (*sponte*).
 Aristolochia Clematidis.
 Euphorbia Peplis.
 stricta.
 hiberna.
 pseudo-Cyparissias.
 Cyparissias.
 Lathyris.
 coralloides.
 dulcis.
 Mercurialis ambigua.
 Ceratophyllum submersum.
 Parietaria fallax.
 Urtica pilulifera.
 Dodartii.
 Ulmus glabra.
 montana, vars. b. and c.
 Quercus intermedia.
 Betula alba, vars. a, b, and c.
 Populus alba (female flowers).
 canescens (female flowers).
 tremula, vars. a and b.
 Salix viridis.
 Russelliana.
 Woolgariana.
 Lambertiana.
 Doniana.
 Helix.
 intricata.
 stipularis.
 pseudo-stipularis.
 rugosa.
 acuminata.
 oleifolia.
 sphacelata.
 phylicifolia, vars. named.
 nigricans, vars. named.
 ambigua and vars.
 repens, vars. named.
 rosmarinifolia.
 angustifolia.
 Lapponum and vars.
 Arbuscula and vars.
 Myrsinites, vars.
 Grahami.
 Bakeri.
 Moorei.
 Sadleri.
 Pinus sylvestris (*sponte*).
 pinaster.
 Taxus fastigiata.
 Typha media.
 angustifolia.
 Sparganium affine.
 minimum.
 Arum italicum.
 Potamogeton pseudo-fluitans.
 linearis.
 plantagineus.
 sparganiifolius.
 Lonchitis.

- Potamogeton nitens.*
 acuminatus.
 decipiens (flowers).
 longifolius.
 zosterifolius.
 acutifolius.
 trichoides.
 pectinatus (type).
 filiformis.
- Zannichellia (any).*
Ruppia spiralis.
Zostera nana.
Naias flexilis.
Zcheuchzeria palustris.
Sagittaria sagittifolia (winter bulbs).
Alisma lanceolatum.
 natans.
- Stratiotes aloides (male flowers and fruit).*
- Orchis hircina.*
 purpurea.
 militaris.
 Simia.
 laxiflora.
 incarnata.
- Neotinea intacta.*
Ophrys arachnites.
Spiranthes æstivalis.
 gemmipara.
- Epipactis ovalis.*
 violacea.
- Cephalanthera rubra.*
Epipogon aphyllum.
Corallorhiza innata.
Liparis Loeselii.
Malaxis paludosa.
Cypripedium Calceolus.
Sisyrinchium Bermudiana.
Trichonema Columnæ.
Gladiolus illyricus.
Iris citrina.
 Bastardi.
 tuberosa.
- Crocus aureus.*
 biflorus.
- Narcissus Bromfieldii.*
 major.
 posticus.
 Tazetta.
- Leucojum vernalis.*
Polygonatum verticillatum.
 officinale.
 intermedium.
- Lloydia serotina.*
Ornithogalum nutans.
Muscari racemosum.
 comosum.
- Allium Ampeloprasum, vars. a and b.*
 Babingtonii.
 vineale, var. a.
 complanatum.
 Schænoprasum.
 carinatum.
- Allium paradoxum.*
 Moly.
- Simethis bicolor.*
Luzula sudetica.
Juncus castaneus.
 filiformis (Scotland).
 macrocephalus.
 Kochii.
 compressus.
- Scirpis uniglumis.*
 parvulus.
 Holoschænus (root-leaves).
 pungens.
- Eriophorum alpinum.*
 gracile.
- Kobresia caricina (England).*
Carex rupestris.
 incurva.
 Ehrhartiana.
 pseudo-divulsa.
 Boeninghauseniana.
 lagopina.
 alpicola.
 bracteata.
 alpina.
 Buxbaumii.
 stricta.
 Watsoni.
 uliginosa.
 Gibsonii.
 Micheliana.
 stictocarpa.
 irrigua.
 limosa.
 ornithopoda.
 ericetorum.
 tomentosa.
 ustulata.
 frigida.
 punctata.
 speirostachya.
 ebracteata.
 Kochiana.
 involuta.
 pulla.
 Grahami.
- Spartina alterniflora.*
Chamagrostis minima.
Digitaria humifusa.
Echinochloa Crus-galli.
Setaria verticillata.
Hierochloa borealis (with root-leaves).
Anthoxanthum Puelii.
Alopecurus pronus.
 Watsoni.
- Sesleria flavescens.*
Lagurus ovatus.
Polypogon littoralis.
Agrostis interrupta (England).
Calamagrostis lanceolata.
 Hookeri.
 tenella.
- Corynephorus canescens.*

- Aira cæspitosa*, vars. b. and c.
 montana.
Avena strigosa.
 fatua, vars. a, b, and c.
Koeleria cristata, var. c.
Poa bulbosa.
 stricta.
 laxa.
 glauca.
 Balfourii.
 Parnellii.
Cynosurus echinatus.
Festuca ovina, vars. b., c., and d.
 arenaria.
 arundinacea.
Bromus Benekenii.
 rigidus.
 pubescens.
 Lloydianus.
 patulus.
Brachypodium glabrescens.
 pubescens.
Triticum biflorum.
 pungens.
 acutum.
Lolium arvense.
 linicola.
Hordeum sylvaticum.
Trichomanes radicans.
 Andrewsii.
Adiantum Capillus-Veneris.
Asplenium germanicum.
 anceps.
 microdon.
 acutum.
 serpentini.
 fontanum.
Athyrium molle.
 incisum.
Woodsia hyperborea.
 ilvensis.
Cystopteris dentata.
 Dickieana.
- Cystopteris alpina*.
 montana.
Aspidium Lonchitis.
 lobatum.
Nephrodium abbreviatum.
 pumilum.
 rigidum.
 cristatum.
 remotum.
 uliginosum.
 collinum.
 nanum.
 glandulosum.
Polypodium flexile.
Gymnogramme leptophylla.
Ophioglossum ambiguum.
 lusitanicum.
Botrychium rutaceum.
Lycopodium annotinum.
Isoetes echinospora.
 Hystrix.
Equisetum pratense (fruct.).
 alpestre.
 subnudum.
 paleaceum.
 variegatum.
 arenarium.
 Wilsoni.
 trachyodon.
Chara flexilis.
 syncarpa.
 translucens.
 mucronata.
 gracilis.
 tenuissima.
 glomerata.
 intricata.
 alopecuroides.
 crinita.
 fœtida.
 hispida.
 tomentosa.
 fragilis.

Any of the "Excluded Species," in addition to those named in the above List, will be acceptable.



THE
BOTANICAL EXCHANGE CLUB.

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THE BOTANICAL EXCHANGE CLUB.

NOTES ON THE PLANTS GATHERED IN 1877.

EDITED BY T. R. A. BRIGGS.

Ranunculus fluitans, L., b. *Bachii*. River Blythe, near Coleshill, &c., Warwickshire (v. c. 38). August 11, 1877. Confirmed by Hiern.—J. E. BAGNALL. No; true *R. fluitans*.—C. C. BABINGTON.

R. peltatus, Fries, a. *truncatus*. Pond, Arlington, E. Sussex, June, 1877.—J. H. A. JENNER. Sutton Park, Warwickshire, June, 1877.—J. E. BAGNALL.

“*Ranunculus*, near *elongatus*, Hiern, Mon.” Tweed, near Sprouston, Roxburgh, July, 1877. This comes very near *elongatus* of Hiern, Mon., but I think it a state of *floribundus*, the nearly glabrous carpels showing also an approach to *triphyllos*.—ANDREW BROTHERSTON. Weak *peltatus*.—C. C. BABINGTON.

Fumaria pallidiflora, Jord., b. *Boræi*. Old quarry, near Richmond, Yorkshire, 1877.—DR. ST. BRODY. I incline to think this true *Boræi*.—C. C. BABINGTON.

Brassica Rapa, &c. Specimens from Mr. H. C. Watson sent to show descent of *B. Briggsii* unchanged in garden for some years; differences between early leaves of the turnip and swede, &c. A most valuable set.—C. C. BABINGTON.

Sisymbrium Irio, L. Berwick-on-Tweed, June and October, 1877. Recorded from the same station by Ray. Confined to a small space both on the walls and on the ground, but there in profusion.—ANDREW BROTHERSTON.

Alyssum incanum. Waste places, site of camp, Lewes, E. Sussex, June, 1877.—J. H. A. JENNER. Among sown clover, near Pirford, Surrey, 1870.—H. C. WATSON.

Viola permixta, Jord. Neighbourhood of Plymouth, 1877.—T. R. ARCHER BRIGGS. Wood, Hurtmore, Godalming, Surrey, April, 1877.—Col. by T. CHURTON; com. by H. and J. GROVES. Hedgebank, near Welwyn, Herts, April, 1877.—T. B. BLOW. Cherry Wood, Fownhope, Herefordshire, February 20, 1877. In abundance and in full flower at this early date. The soil is lime-

stone, and true *hirta* is abundant in parts of the district. This Cherry-wood plant is slightly scented, as *odorata*. The same, or a violet closely resembling this, is abundant in copses on the sandstone at Breinton, Herefordshire, where no true *hirta* that I know of occurs.—AUGUSTIN LEY. I continue to have much doubt and difficulty about these plants. Jordan finds a difference in the form of the leaves between *V. permixta* and *V. sepicola*. I do not find any difference between the specimens sent and all named *permixta*.—C. C. BABINGTON.

V. lactea, Sm. Gravelly heath, Staplers, Isle of Wight, June 7, 1877.—FRED. STRATTON. Lizard Down and Debigna Wood, W. Cornwall, June, 1877.—J. CUNNACK. I would rather label some of Mr. Stratton's specimens as the var. *b. intermedia*, Wats. Still I believe *lactea* is only a variety of Linnean *canina*, as Babington makes it.—T. R. A. BRIGGS.

V. tricolor, var. Sandy ground, St. Martin's, Scilly Islands, July 3, 1877.—J. RALFS. It is certainly, as Mr. Baker thought, very like *V. parvula*, Tin., but seems to be too much branched. My Sicilian specimens of *V. parvula* are nearly simple, as described by Gussone; ours are all much branched. But other specimens from Sicily, named and distributed by Huet de Pavillon, are exceedingly like ours and branched.—C. C. BABINGTON.

V. Curtisii, Forst. Lytham sandhills, Lancashire, June, 1877. A hitherto (so far as I can find out) unrecorded locality, but, as the various examples will show, represented here most abundantly in well nigh every variety of form, and likewise gradation of colour. The most frequent are the wholly purple, or wholly yellow—the latter much resembling *V. lutea*, Huds., but smaller. The species is far more abundant at Lytham than at Southport or New Brighton sandhills; indeed, though the latter place is mentioned in all the floras as a habitat of *V. Curtisii*, a diligent though fruitless search in the summers of 1868 and 1869 causes me to believe it to be now extinct in this locality.—J. C. MELVILLE.

Polygala depressa, Wend. Aberdour, Fife, July 26, 1877.—D. DOUGLAS. Mr. Douglas sent me a specimen of this, which I named *P. oxyptera*. On seeing a number of specimens I am now convinced I was wrong, and that it is *P. depressa*, but a form approaching *P. oxyptera*.—J. T. BOSWELL.

Hypericum linarifolium, Vahl. Christow, on rocks a mile or more from River Teign, June, 1877. Rocks near River Teign, Trusham, June 20 and September, 1877.—W. MOYLE ROGERS.

Tilia grandifolia, Ehrh. Very abundant in the woods, clothing the gorge of the Teme at Downton Castle, Herefordshire. It has all the appearance of being native here, growing mixed with oak and other native timber. The valley of the Teme at Downton bears great resemblance to that of the Wye, at Symond's Yat, where this lime is also abundant.—AUGUSTIN LEY.

Geranium nodosum, L. Abundantly naturalized near Malvern, Worcestershire, July, 1877.—J. C. MELVILLE.

G. Robertianum, L., *b. modestum*. Shady rocky ravine, Christow, S. Devon, June 23, 1877.—W. MOYLE ROGERS. Although having

the glabrous carpels, this plant seems to me otherwise too hairy to quite agree with *G. modestum*, Jord.—T. R. A. BRIGGS.

Trifolium repens, L., var. *Townsendii*. Tresco and St. Martin's, Scilly, W. Cornwall.—J. RALPHS. A plant sent from Gunwalloe Lizard by Mr. Cunnack, as this, is only *repens* with slightly purplish flowers.—T. R. A. BRIGGS.

T. suffocatum, L. Rocky ground, Trusham, S. Devon, May 31, 1877.—W. MOYLE ROGERS. Remarkable from occurring in an inland locality, as noticed by the contributor in 'Journ. of Bot.'

"*Rubus derasus*." Plantation, Speke, Lancashire, September, 23, 1876.—J. HARBORD LEWIS. I do not consider this to be the plant so named in my 'Manual,' which I now call *R. adscitus*, Genev. I think it is *R. carpinifolius*. I cannot find that I have ever had a specimen from Mr. Harbord Lewis. The presence of a few setæ and aciculi renders this determination a little doubtful, but probably we may easily lay too much stress upon that character. I think it very likely that all my *Sylvatici* may sometimes have a few setæ and aciculi.—C. C. BABINGTON.

R. hirtifolius, Wirtg.? Hedge, Derriford, Egg Buckland, S. Devon, July 17, 1877. Apparently identical with a bramble labelled *hirtifolius*, Wirtg., in Mr. Baker's collection of Continental *Rubi*.—T. R. A. BRIGGS. I have a specimen of *hirtifolius* (Wirtg. Herb. Rub., ed. 1, No. 173), which is very much like this. But Focke thinks that published specimen doubtful. He thinks that it may possibly be a form of the *R. pyramidalis*, Kaltenb., but I can hardly agree with him, with his own specimen of the latter (*Rub. Select.*, 65) before me. That has, as he describes it, a truly pyramidal panicle with patent branches; not like the Derriford plant and the above No. 173. By "folia subtus subvelutina" Focke appears to mean what I should describe as "hairy only on the veins." The Derriford plant seems to be very near to *R. amplificatus*, Lees = *R. stercacanthus*, Müll.; neither of which are, I think, noticed by Focke. I was probably wrong in identifying *R. umbraticus*, Müll., with *R. amplificatus*, as Focke is probably correct in joining that to *R. pyramidalis*, Kaltenb. My specimens of *R. umbraticus* are from Wirtgen (*H. R.*, ed. i. iv., 82), and Boulay (No. 9), both apparently authenticated by Müller. I need hardly add that my *R. pyramidalis* is a totally different plant, which Focke considers as near to his *R. myricæ*, but can hardly be correct in doing so. But I have not seen any specimen of *R. myricæ*.—C. C. BABINGTON.

"*R. macrophyllus*, Weihe, a. *glabratus*, fide Babington." Form with 3-nate leaves. Hedge, Harrietfield, Berwick, October 6, 1877. Extending for a considerable distance along a hedge. The two seasons that I have seen this plant all the leaves on the barren stem have been 3 nate. The same form on the sea coast at Fenham Mill, Northumberland.—ANDREW BROTHERSTON.

R. Bloxamii, Lees. Roadside between Marsh Mill and Plympton St. Mary Church, S. Devon. A plant with quite a restricted distribution, yet abundant in some spots. A specimen from Crabtree was labelled *Bloxamii* by the late Rev. A. Bloxam.

July 9, 1877.—T. R. A. BRIGGS. Of course this plant from Marsh Mill is not typical. A specimen of the same from Crabtree collected in July, 1865, is marked in my herb. as authentic *R. rhenanus*, Müll., on the authority of Genevier. I cannot find any description of *R. rhenanus*, and have no foreign specimen of it. It differs in several respects from true *R. Bloxamii*, of which I have a good series before me from Lees and Bloxam, by its much more hairy stem,—indeed, hairiness throughout,—but especially by its beautiful pyramidal, open, nearly naked panicle, with long corymbose few-flowered branches which are quite simple in their lower part. It should not go out as *R. Bloxamii*, without note or comment, as it would convey a wrong idea of that plant.—C. C. BABINGTON.

“*R. scaber*, Weihe?” Neighbourhood of St. Budeaux, S. Devon, 1877.—T. R. A. BRIGGS. I think that this may be correct. Its very slightly-armed stem is remarkable, and in that respect I have nothing like it.—C. C. BABINGTON.

R. Koehleri, Weihe, var. *caratifolius*, Weihe, *vide* Babington.” Field-border, Sellack, Monmouthshire, July 13, 1877.—AUGUSTIN LEY.

“*R. fusco-ater*, Weihe.” Broomsgrove Lickey, Worcester, October, 1877.—J. FRASER. This plant is *R. Koehleri* γ . *pallidus*.—C. C. BABINGTON.

“*R. fusco-ater*, Weihe.” Heslington, near York, September, 1877.—GEO. WEBSTER. *R. Koehleri*, α .—C. C. BABINGTON.

“*R. tuberculatus*, Bab.” Kew, Surrey, July, 1877.—J. G. BAKER. Not my plant, nor much like it. It is very like *R. Balfourianus*, especially resembling a plant so named by me in the Herb. Borrer from Eridge Wood, near Tonbridge Wells; indeed almost the only difference is found in the more furrowed stem of the Kew plant now issued. The lower part of the stem of typical *R. Balfourianus* is not furrowed, although its upper part often is so. I have never seen it with so furrowed a stem as in this from Kew.—C. C. BABINGTON.

Rosa fetida, Bast. Hedge, Thames Ditton, Surrey, September, 1877.—H. GROVES. A form of *tomentosa* allied to *scabriuscula* and *sylvestris*.—T. R. A. BRIGGS.

R. micrantha, Sm. Hedge on roadside near E. Muirdean, Roxburgh, October, 1877. Bank on roadside between Kelso and Newthorn, Berwickshire, August and October, 1877. Roadside between Kelso and Yetholm, Roxburgh, November 2, 1877 and 1878. I send specimens of this from three stations; those from the two last named have hairy styles.—ANDREW BROTHERSTON.

R. senticosa, Ach. Near Knowle, Warwickshire, July 28, 1877. It occurs in some abundance, but I have only been able to send a very limited supply owing to the paucity of flowers this year.—J. E. BAGNALL.

R. decipiens, Dum. Near Sutton, Warwickshire, 1877. This was first found in the county by the Rev. A. Bloxam near Harboro' Magna. The specimens are from a new station, where I found several bushes. It is not what I should consider the typical form,

as the calyx is not glandulose, but is that mentioned in Baker's monograph as occurring in Leicestershire and Cheshire. In this respect Mr. Bloxam's plant is similar.—J. E. BAGNALL.

R. systyla, Bast. Hedge near Shirley, S. Hants, August, 1877.—J. GROVES. Similar to the Devon *systyla*, considered by Déséglise to be rightly so named.—T. R. A. BRIGGS.

R. leucochroa, Desv. Near River Teign, Trusham, 1877.—W. MOYLE ROGERS. A well-marked rose that abounds in Devon and Cornwall.—T. R. A. BRIGGS.

Pyrus torminalis, Ehrh. Bradfield, Essex, September, 1877.—H. E. FOX. A remarkable form with leaves very deeply lobed.

Saxifraga hypnoides, L., var. Dry limestone rocks, Black Head, Co. Clare, Ireland, May 13, 1876. A variety mentioned in Cyb. Hib., having the leaves clustered in a singularly dense manner, nearly glabrous, the leaves and sepals broader and blunter than in *hypnoides* of the north of Ireland. The fls. small, but the stamens larger and rounder. In some quantity on bare dry limestone rocks.—S. A. STEWART.

Tordylium maximum, L. Ditch-banks, Tilbury, Essex, July, 1877.—EYRE DE CRESPIGNY. This would seem at least established in the locality from the further supply sent by the discoverer (see B. E. C. Rep., 1876, p. 20).—T. R. A. BRIGGS.

Valerianella carinata, Lors. Helston, Cornwall, July, 1877.—J. CUNNACK. Stone-dyke, Penzance, June 4, 1877.—W. B. WATERFALL. Several places near Plymouth.—T. R. A. BRIGGS. Hedge-bank, near Bovey Tracey, Devon, May 26, 1877.—W. MOYLE ROGERS. Hedge-bank, Dundonald, Co. Down, Ireland, June 19, 1877.—S. A. STEWART. Becston Tor, near Wetton, N. Staffordshire, June 14, 1877. Riversdale, Derbyshire, June 12, 1877. I am convinced that this is as native as *V. olitoria*, Mœnch., in the limestone dales of Derbyshire and N. Staffordshire. This year I found it in two spots in Ravensdale, Derbyshire, growing on the limestone crags in company with *V. olitoria*, amid such purely native vegetation as *Potentilla verna*, &c. Similarly, and again mixed with *V. olitoria*, in the limestone dales near Wetton, N. Staffordshire; and I used to find it in precisely similar situations near Buxton in 1868–70. In all these cases the two allied species seemed to be inseparable companions. The occurrence of the common one was a sure sign that the rarer was somewhere near.—AUGUSTIN LEY. I quite endorse the Rev. A. Ley's remarks as to this being as much a native as *V. olitoria*. In the neighbourhood of Plymouth it is not restricted to a limestone soil.—T. R. A. BRIGGS.

V. eriocarpa, Desv. Dry hedge-bank, Rame, E. Cornwall. At least established here, June 14, 1877. T. R. A. BRIGGS. East Green, Penzance, W. Cornwall, May 29, 1877.—W. B. WATERFALL.

Carduus tenuiflorus, Curt., form of; *C. pygnocephalus*, Jacq. (verus). On limestone rocks above the coast, Hoe, Plymouth, June, 17, 1877. On receiving a specimen from me of this peculiar form of *C. tenuiflorus*, Mr. H. C. Watson remarked, in a letter:—

"By the tomentose pericline this should go to *C. albidus*, Bieb., fide DC. Prodr., which so distinguishes *C. albidus* from *C. pycnocephalus*. Both are there placed as vars. under *C. tenuiflorus*. But, setting aside the tomentose involucre, your specimen is nearer *pycnocephalus*."—T. R. A. BRIGGS.

"*C. nutanti-crispus*?" Downs, Lewes, Sussex.—J. H. A. JENNER. "*C. nutanti-crispus*." Lutterworth, Leicestershire, September, 26, 1877.—F. T. MOTT. Nearly typical *acanthoides*. The down on the under side of the leaves is usually more abundant than it is said to be in my 'Manual.'—C. C. BABINGTON.

Senecio palustris, DC. Fen, with *Cladium Mariscus*, *Rhynchospora alba*, *Ranunculus Lingua*, *Nephrodium Thelypteris*, &c., East Norfolk, July, 1877. About twenty plants were seen, some having only radical leaves, others in flower and fruit.—A. BENNETT.

Sonchus lacerus. Kew, Surrey, August, 1877.—J. G. BAKER. An interesting form of *S. oleraceus*.—C. C. BABINGTON.

Hieracium pratense, Tausch. Roadside east of Edinburgh, July 11, 1877. Very abundant. Plants in my garden produce in July flowers like the specimens; in September they again flower, and then produce a few on the stolons, as well as in the usual way.—A. CRAIG-CHRISTIE.

H. lasiophyllum, Koch. Craig Breidden, Montgomeryshire, on limestone rocks, June, 1877.—AUGUSTIN LEY. Differs considerably from my plant. Far nearer *H. pallidum*, if not really it.—C. C. BABINGTON.

H. juranum, Fr. *H. Borreri*, E. B., ed. iii. Cultivated at Balmûto (said to be from Harehead Wood, Selkirk, Dickson). From Messrs. Borrer and Watson, October, 1877.—J. T. BOSWELL.

H. Dewari, Boswell in Trans. Bot. Soc. Edin., 1878. (See B. E. C. Rep., 1876, pp. 26, 27). I suppose I have the Loch Long plant ticketed as found by myself at Arroquhar, Dumfriesshire, August 23, 1842, marked as *H. inuloïdes* by me, but corrected *H. strictum* by Backhouse. I find no trace of ever having called it *H. Lapeyrousi*. I have also a specimen from Killin (August 1, 1844), formerly called *H. denticulatum* and *H. strictum*; and one from Inverarnan, Loch Lomond, similarly named; which I believe are *H. Dewari*. Also one from Glen Malienne, Antrim, gathered by I. Carroll, and called *H. strictum* by Backhouse, which I suppose may be *H. Dewari*. One named *H. strictum*, by Mr. T. Drummond, from Aberdona, Clackmannan (August 12, 1875), is apparently correct.—C. C. BABINGTON.

Solanum melanocerasum, Bernh., and *S. villosum*, Lam. These varieties of *Solanum nigrum* are both common about Kew. For descriptions see 'Boreau, Fl. du Cent.', vol. ii., p. 466-7. *S. nigrum*, as there restricted, I have never seen.—J. G. BAKER.

"*Linaria vulgari-repens*." Found at Sulham, near Reading, Berks, August, 1877. Two varieties growing plentifully and near together, but quite distinct, on chalk; one kind white-striped with lilac and yellow throat, the other white, except yellow throat; the sepals of both shorter than the spur, and generally wrinkled with a ring, but some with a wrinkled border.—MISS S. M. PAYNE.

Mentha alopecuroides, Hull. A large patch on both sides of the College water, a short distance above Heathpool, Cheviotland; probably an escape from some of the shepherd's gardens, October, 1877.—ANDREW BROTHERSTON.

M. pubescens, Willd. Brookside, near Mitcheldean, West Gloucester, September 13, 1877.—AUGUSTIN LEY. *Mentha pubescens* I call *M. hirsuta*, L., and do not separate the forms given in the 'Students' Flora,' even if they are distinguishable from *M. aquatica*. Is *hirsuta* a slip of the pen for *aquatica*? Of course if *hirsuta* and *pubescens* be the same, a plant cannot be nearer one than the other.

M. gracilis, b. "*Cardiaca*." Shrewley Common, Warwickshire, September 12, 1877.—R. L. BAKER. Haseley Common, Warwickshire, September, 1877.—H. BROMWICH. I think not *M. Cardiaca*.—C. C. BABINGTON.

"*Thymus Serpyllum*, approaching *Chamadrys*."—Barnes, Kelso, Roxburgh, August, 1876. A very curious intermediate. I called it *Chamadrys* when I saw it first, but now think it is *eu-Serpyllum*.—J. T. BOSWELL. I doubt if the two bits are from the same plant.—C. C. BABINGTON.

Stachys annua, L. Downs near Sevenoaks, Kent, August 4, 1873. Coll. by Jas. Fletcher; com. by W. H. Beeby. The enclosed specimen was collected by my friend, Mr. John Fletcher, who is now in Canada. He writes me that it was growing abundantly on the open downs.—W. H. BEEBY.

Teucrium Botrys, Linn. Chalky field in the parish of Selsdon, near Croydon, Surrey. Coll. by Mr. J. Flower, of Croydon, in 1877; com. by A. Bennett. Found in good quantity. Selsdon adjoins Sanderstead, whence the plant was reported many years ago.—A. BENNETT.

Salicornia radicans, L. Dawlish Warren, S. Devon, August, 1877.—W. MOYLE ROGERS.

Rumex—hybrid between *conglomeratus* and *pulcher*? approaching *pulcher*. Seed from Tothill, Plymouth (see B. E. C. Rep., 1872-4, p. 34), September, 1877.—J. T. BOSWELL: I wish Dr. Boswell had given us a root-leaf of this, as Mr. Briggs had not seen any, and as he has the plant in cultivation.—C. C. BABINGTON.

Rumex sylvestris, Wallr., var. Kew, Surrey, August, 1877. Racemes much more slender than in type, very few flowers fertilized, enlarged petals subentire or faintly toothed. Several tufts intermixed with ordinary form.—J. G. BAKER. This, with the few fertilized flowers, has much the look of a hybrid dock. T. R. A. BRIGGS.

"*R. maximus*, Schreb.?" River-side, Braxted, Essex; leaves, July 12; fruits, August 30, 1877. The specimens were taken from plants cut about by the scythe and otherwise damaged by cattle, so that suitable portions for drying were not obtainable.—E. G. VARENNE. *R. maximus*, Schreb. Anglor. River-banks, Lewes, E. Sussex, August, 1877. Some of the plants sent are from Mr. Warren's original locality.—J. H. A. JENNER. Marsh, St. Mary's, Scilly, W. Cornwall, June 30, 1877.—T. R. A. BRIGGS.

Salix Russelliana, Sm., fide Leefe. Tweedside, below Trows Crags, Roxburgh, May 29 and September 13, 1876; June 12, 1877. Mr. Leefe, after seeing a specimen, replied:—" *S. Russelliana* in my opinion, though the axis of the aments is more woolly and the leaves broader than usual." *S. Russelliana*, Sm., male and female; Peating Bog, Roxburgh, May, 1876, and September, 1877. Banks of Teviot, near Kelso, Roxburgh, May and September, 1877. This without the catkins would pass for *alba*. I send a series of *Russelliana* that have all been seen and examined by the Rev. J. E. Leefe, who, as will be seen, includes a wide range of forms under that name—from very near *fragilis* on one hand to *alba* on the other.—ANDREW BROTHERSTON.

Salix (sp. ?) Peating Bog, Roxburgh, April, 1876. I send this without a name. It seems to have touches of *stipularis*, *Smithiana*, and *ferruginea*, but in some important points does not agree with any of them. The following are some remarks by Mr. Leefe on it:—"This is a peculiar form, leaves resembling *ferruginea*, except as to stipules, and there is a broad leaf which looks suspicious of something else. The catkins resemble *stipularis*, but the germen is manifestly stalked. Pedicel sometimes as long as style. Worthy of further observation. I do not venture to call it *stipularis*." After sending fresh specimens of catkins I had the following reply:—"I see I felt some doubt about this when you first sent it to me. On the whole I should refer it to *stipularis*." As I wished to get his further opinion before sending specimens to B. E. Club, I sent more specimens, and he replied:—"The stipules are not those of *stipularis*, Sm., and the ovarium does not appear to be sessile: I should name it doubtfully *Smithiana*, Willd."—ANDREW BROTHERSTON. I should call this *ferruginea*.—J. T. BOSWELL.

"*Salix* near *rugosa*." Bowmont Forest, Roxburgh, May, 1877; October, 1876. Mr. Leefe says of this:—"I think *S. rugosa*. I have leaves like this from Yorkshire. It varies much in the form and length of the leaves."—ANDREW BROTHERSTON. I am quite puzzled with this. The very long styles—longer than even those of *S. ferruginea*, on the one hand; and the leaves most like those of *cinerea* in texture, also in the venation and condition of the lower surfaces, on the other hand, make up a plant unlike anything I have seen.—J. T. BOSWELL.

S. Bakeri, Lond. Cat. Cultivated at Balmuto. From Rev. J. E. Leefe, October, 1877.—J. T. BOSWELL.

Potamogeton salicifolius, Wolfg., teste Prof. Babington. In the Wye, Sellack, Herefordshire, July 15, 1877. The name of this is given on the authority of Prof. Babington. I have had it in my herbarium ever since 1866, without knowing what to name it. In the last and the present year I found it again, and sent it up to him. He tells me he feels satisfied that it is the *P. salicifolius* of his 'Manual.' It grows in the Wye in shallow, moderately swift water, and though flowering freely, I have been unable to find any fruit perfected.—AUGUSTIN LEY.

Najas flexilis, Rostk. Loch Cluny, in 6–12 feet of water, Perth, September 2, 1876. The discovery of this plant by Mr. Sturrock,

of Blairgowrie, in the summer of 1865, is fully described in the 'Scottish Naturalist.'—H. M. DRUMMOND-HAY.

Alisma Plantago, L., b. *lanccolatum*. Ditches, Lewes, E. Sussex, August 25, 1877.—J. H. A. JENNER.

Juncus compressus, Jacq. Tweedside, Makerstoun, Roxburgh, July, 1873. Growing close to the edge of the Tweed, in fissures of igneous rock, above twenty miles from the sea. This is the only spot in the district where I have detected the typical inland plant.—ANDREW BROTHERSTON. Confirmed by Dr. Boswell.

Carex ericetorum, Pollich. Icklingham Heath, between Thetford and Barton Mills, W. Suffolk; growing plentifully among *Calluna*, with *C. præcox*, &c., on high ground, overlying chalk, May, 1877. More abundant than *C. præcox*, and easily recognised. I also gathered it on the grassy sides of the road beyond the heath for $1\frac{1}{2}$ miles, and found one specimen on Risby Heath.—A. BENNETT.

Anthoxanthum Puelii, Lec. & Lam. Whittington, Staffordshire, August, 1877. In abundance in a field, probably introduced with grass seeds. Mr. W. Matthews, of Birmingham, and the Rev. J. H. Thompson found it in another grass field near Churchill, Worcestershire, about two miles from this locality.—J. FRASER.

Calamagrostis Hookeri. Gravelly lake shore, Scawdey Islands, Lough Neagh, June 30, 1877.—S. A. STEWART.

Avena strigosa, Schreb. Fields, Kelso, Roxburgh, September, 1873; September, 1877. Besides the typical plant I send a few specimens with dark-coloured seeds. Both vars. were equally plentiful in 1873, growing intermixed. The difference in colour is not owing to the stage when gathered. I sowed some seeds of each sort, and both came true. This species is confined to the light soils in this district, whilst *A. fatua* is generally found on the heavy soils.—ANDREW BROTHERSTON.

A. fatua, L., c. *pilosa*. Burntisland, Fife, October, 1877.—J. T. BOSWELL.

Bromus mollis, L., a coast form of this, combining characters of *glabrescens* and *Lloydianus*. In earth on a wall-top above the coast, Rame Head, E. Cornwall, June 14, 1877.—T. R. A. BRIGGS.

Triticum acutum, DC. Leith Links, Edinburgh, August 23, 1877.—D. DOUGLAS. Rightly named.—J. T. BOSWELL. Certainly not *acutum*. Why not *T. repens*?—C. C. BABINGTON.

Asplenium septentrionale, Hull. Between Chudleigh and Dartmoor, on rocks facing north, S. Devon, July, 1877.—W. MOYLE ROGERS.

Ophioglossum vulgatum, L., b. *ambiguum*. St. Martin's, Scilly, W. Cornwall, June, 1877. The smaller specimens were gathered in the short grass in open places, the larger ones amongst the furze.—J. RALFS.

Chara flexilis, L. Pond near Woodford, S. Essex, June, 1877.—H. GROVES. This I had from Mr. Groves from the same place.—C. C. BABINGTON.

C. syncarpa, Thuill. Pool, Ashtead, Surrey, June 2, 1877.—J. GROVES. I am not quite prepared to say that this is the typical

plant. May be *C. opaca*. We must attend to the fresh state to see if the characters are correct, viz. :—

1. *syncarpa*. Nucules and globules coated with mucilage, spires of nucules broad flattened, faintly separated.
2. *capitata*. Similar, but nucules with rather acute prominent spires.
3. *opaca*. Nucules and globules naked, spires prominent.—

C. C. BABINGTON.

C. translucens, Pers. Pond near Woodford, S. Essex, June, 1877.—H. GROVES.

C. intricata, Roth. Pond, Kelvedon, Essex, June 10, 1877.—E. G. VARENNE.

C. crinita, Wallr. Swan Pool, Falmouth; coll. by W. Curnow for Mrs. E. A. Lomax, August, 1877. Differs considerably from my specimens from Burdock Pool. I think it may be only a form of *C. fætida*.—C. C. BABINGTON.

C. fætida, Braun. The Lizard, W. Cornwall, September, 1877. Coll. by Mr. Curnow for Mrs. E. A. Lomax. *C. fætida* from the Lizard is curious, and worth more attention. It may be different, but I cannot now settle that point. It is apparently the plant from near Kynance Cove, which I named *C. fætida*, var. *densa* of Cosson last year. It is more like Cosson's figure (Atl. Fl. de Paris, p. 37, f. 8) than the Kynance Cove plant.—C. C. BABINGTON.

"*C. hispida*." Shallow pool on downs, Lizard, W. Cornwall; August 25, 1877.—W. B. WATERFALL. *C. polyucantha*, I believe. I so named what is apparently the same plant for Mr. Ralfs from "rivulet on Lizard Downs" last year.—C. C. BABINGTON.

C. aspera, Willd. Canal, near Pirbright, Surrey, August, 1877.—H. & J. GROVES. I so named this plant for Mr. Groves last year. It is, I believe, the *C. aspera*, v. *capillata* of A. Braun.—C. C. BABINGTON.

C. fragilis, Desv. Stream near Lyndhurst, S. Hants, June 26, 1876.—J. GROVES.

C. fragifera, Durieu. Pond, Lizard Downs, July 31, 1877.—J. RALFS. Chy-an-hal, near Penzance, 1867.—J. RALFS, also W. Curnow for Mrs. E. A. Lomax. I have now an admirable series of this beautiful plant. "*C. fragilis*, stagnant pool near Land's End," from Mr. Waterfall, is, I quite think, *C. fragifera* [as also is probably a plant which Mr. Townsend got at Tresco, in Scilly, in 1862].—C. C. BABINGTON.

T. R. ARCHER BRIGGS.

April, 1879.

REPORT OF THE PLANTS GATHERED IN 1878.

EDITED BY J. G. BAKER.

Thalictrum saxatile. Received this year from Mr. J. H. Jenner from Newmarket, and from Dr. Boswell from the Gog Magog Hills, the specimens from a plant grown in his garden at Balmuto.

Ranunculus fluitans. River Eamont, Cumberland, Rev. W. Wood; gathered by W. Hodgson. New to subprovince 25.—A form with floating leaves from the Teviot, near Roxburgh Castle; gathered by Mr. A. Brotherston.

R. intermedius, Hiern. Trevethick Moor, Penzance.—J. RALFS.

Caltha Guerangerii. Swampy spots in a wood at Lea Mill Bridge, South Devon.—T. R. A. BRIGGS.

Papaver strigosum. Myton, Warwick, H. Bromwich; Wolverhampton, Dr. Fraser; and Kew, Surrey, G. Nicholson.

P. Lecoquii. Roadside at Kelso, Roxburgh.—A. BROTHERSTON.

Sisymbrium pannonicum. Sandy fields at Crosby, Lancashire.—J. COMBER.

Barbarea stricta was very plentiful this year along the Surrey side of the Thames between Richmond and Kew.

B. intermedia. Wall at Knackersknowle, and near the fort at St. Budeaux, S. Devon.—T. R. A. BRIGGS.

Viola permixta. Hedge-bank at Merstham, Surrey, W. H. Beeby; and a bank near Woolhope, and a boggy wood at Brunton, Herefordshire, Rev. A. Ley.

Drosera intermedia. "A curious stalked form of this species, which I have named in manuscript *subcaulescens*, was found this summer in one place near Wybunbury Bog, Cheshire. It grew in floating masses in a peat-ditch filled with water, in the very wettest portion of the moss, where it was almost impossible to walk, the roots in some cases floating also, as in *Utricularia*, and almost or quite free from adherence of earthy matter."—J. C. MELVILLE.

Polygala vulgaris var. *grandiflora*. Specimens so named were sent from Cwm Idwal, Carnarvon, Rev. A. Ley; and chalk débris near Dover, A. Bennett. These I asked Mr. A. W. Bennett to examine, and he reports:—"The specimens marked *Polygala vulgaris* var. *grandiflora* from Cwm Idwal, collected by Mr. A. Ley, are nothing but rather large-flowered specimens of the ordinary form. Those with the same name, gathered by Mr. A. Bennett near Dover, more resemble the Ben Bulben variety, both in the smaller lower leaves and fleshy habit, and in the apiculate wiry sepals. Still, no one who saw them together would say that the Kentish plant exhibited more than an approach towards the remarkable Irish variety."

Lychuis Githago. Mr. T. Leighton, of Kew, sends through Mr. G. Nicholson a form gathered on the chalk downs near Epsom in which the sepals are regularly no longer than the petals, both being about an inch long.

Malva borealis, Wallm. (*M. Henningii*, Goldb.) This species is now becoming one of the common mallows of the neighbourhood of London. From what we in England call *M. rotundifolia* of Linnæus, which is the *M. vulgaris* of Fries and many other continental authors, it differs by its much smaller flowers and fruit-carpels marked on the back by distinct transverse ridges. It comes much nearer to the common South European *M. parviflora* of Linnæus, but in this latter the calyx is more markedly accrescent in the fruiting stage, and the dorsal ridges of the fruit-carpels are more strongly pronounced and produced into marginal teeth. I have not seen any British specimens of the true *parviflora*. This year Mr. Nicholson has contributed specimens of three varieties of *borealis*, all gathered in the neighbourhood of Kew, with characters as follows:—

1. The type, as issued by Fries in his 'Herbarium Normale' under the name of *M. rotundifolia*, and figured by Reichenbach under the same name in his 'Icones,' tab. 4835, with slightly hairy fruit, a quarter of an inch in diameter, and a relatively small calyx with sepals hardly at all incurved at the tip.

2. A form, a smaller fruit (one-sixth to one-fifth of an inch in diameter) not particularly hairy, with a calyx as large as in the type, which wraps over it so as nearly to hide it. This is probably *M. microcarpa*, Reich. Ic., tab. 4833, but not the plant so called by Desfontaines, which is a *parviflora* form.

3. A form with densely hispid fruit as large as in the type, but with the sepals incurved and wrapped over it as in the second variety.

Scleranthus biennis. Sandy pastures at Milverton, Warwick.—H. BROMWICH.

Lavatera sylvestris. A good supply of Scilly specimens this year from Mr. Ralfs and others.

Geranium striatum. Shady hedge-bank at Penzance, W. B. WATERFALL; and the Cumberland side of Ulleswater Lake, Rev. A. WOOD, gathered by W. HODGSON.

G. Robertianum. Small-flowered forms with more or less fleshy leaves this year, from the east side of Vazon Bay, Guernsey, Dr. FRASER; shingly beach at Pett, E. Sussex, J. H. JENNER; sea-beach west of St. Leonard's, Sussex, C. BAILEY; rocky ground near Torquay, Mrs. LOMAX; and Stokes Bay, Hants, H. & J. GROVES.

Trifolium supinum and *spumosum*. Waste ground on the Surrey side of the Thames, near Kew.—G. NICHOLSON.

Potentilla norvegica. A good supply sent by Dr. Arnold Lees with the following note:—"This occurs in two West Yorkshire localities, some twelve miles apart, in both of which it has been known for over a dozen years. It continues to spread along certain lines of waterway. Along the banks of the canal, and River Aire, from Lake Loch Stanley towards Castleford, in the vice-county of S. W. York, it is found for miles; and also grows in profusion in the stonework of the canal between Armley Mills and Kirkstall in the vice-county of Mid-west York. It was first recorded in print in 1866 ('Naturalist,' O.S., vol. ii., p. 80), by the

late T. W. Gissing—a Wakefield botanist—under the name of *Arenonia agrimonoides*, as ‘pretty abundant by the canal running from Stanley to the Calder.’ Now, in 1878, this humble alien weed offers an example of perfectly successful colonisation only paralleled by *Anacharis* or *Impatiens fulva*. It was probably originally introduced with baulks or props of Norway pine used about the canal locks or in adjoining coal-pits, but it has now become as ineradicable as the indigenous weeds to be found with it by the towing-paths where it occurs, and in future editions of our descriptive manuals deserves a place much more than many other species of less recent introduction. It is a most prolific seeder, and the seeds germinate wherever they fall, apparently whether fully ripened on the parent plant or not.”

Rosa involuta. A variety with naked peduncles and calyx-tube, nearly simple leaf-serration and leaves hairy only on the ribs beneath, from Apes Tor, Alstonfield, Stafford, Rev. W. H. PURCHAS.

R. sepium. One of the most valuable contributions this year is a good supply of this species from a hedge near Puttenham, in Surrey, from Messrs. H. & J. Groves. This for the first time settles it down firmly as an English plant. I got it near Hind Head many years ago, but saw only a couple of bushes. So far as I know it has never been seen in Warwickshire since Mr. Bree gathered it a generation ago.

R. aspernata, Desegl. Trusham, Rev. WM. ROGERS; Woodlands, near St. Budeaux, S. Devon, T. R. A. BRIGGS.

R. latebrosa, Desegl. Solihull, Warwick, J. BAGNALL; and Tamerton Folliott, S. Devon, T. R. A. BRIGGS. This and the last came under *R. verticillacantha*, as understood in my monograph.

R. Borveri. Tettenhall, Warwick, Dr. FRASER.

R. tomentella. Gayton and Rothershope, Northamptonshire, G. C. DRUCE.

R. obtusifolia. Barnes Common, Surrey, G. NICHOLSON; Chudley, S. Devon, Rev. WM. ROGERS; and Sellack and King’s Capel, Hereford, Rev. A. LEY.

R. coriifolia. Glen Lochay, Perth, Rev. E. F. LINTON; and High Ridge Fall, Roxburghshire, A. BROTHERSTON.

R. Watsoni. Edenmouth, Roxburghshire, A. BROTHERSTON. Peduncles sometimes setose.

R. implexa. Hedge near Shepperton, Surrey, H. & J. GROVES.

R. surculosa. Ham Common, Surrey, G. NICHOLSON. A form with globose fruit, like luxuriant *spharica*.

R. biserrata. Trusham, S. Devon, Rev. WM. ROGERS.

R. Bakeri. Hedge near Old Park, Warwick, H. BROMWICH; and Holgate, York, G. WEBSTER.

R. arvensis, var. *pubescens*, Desv. Ham Common, Surrey, G. NICHOLSON.

Rubus mucronulatus. Mr. G. Nicholson sends, from the neighbourhood of Kew, specimens of a London bramble which is regarded by Babington as a variety of *mucronulatus*, a stronger-growing plant than the type, with many setæ on the barren stem,

end-leaflets round (not obovate) with a decided cusp, panicle with more numerous and stronger prickles, and denser, more numerous flowers with shorter pedicels. I know of no special name for this, but it is a well-marked form that comes in between *mucronulatus*, *villicaulis*, and *fuscoater*. The true *mucronulatus*, which Dr. Boswell sends this year from the neighbourhood of Aberdour, in Fife, we do not get anywhere in the neighbourhood of London.

R. villicaulis. Mr. Bagnall sends a plant from New Park, Middleton, Warwickshire, which Bloxam named *R. heteroclitus*, Wirtgen. This seems to me a slight variety of *R. villicaulis*, and another plant from Mr. Bagnall from the same locality named *adscitus* by Bloxam to be typical *villicaulis*, as we understand it in England.

R. ramosus, Blox. Minworth, Warwick, J. BAGNALL; and Bircham, Egg Buckland, South Devon, T. R. A. BRIGGS. This seems to me a well-marked bramble, allied to *rhamnifolius*. I have never met with it about London, or in the north of England.

R. Hystrix. Wormley Wood, Broxbourne, Herts, Dr. CRESPIGNY.

R. pyramidalis. Easton Bishop, Hereford, Rev. A. LEY.

R. diversifolius, Lindl. A form with ascending sepals from hedges at Heslington, near York, G. WEBSTER.

R. corylifolius var. *R. degener*, Muller. Under this name, for which I am indebted to Genevier, I have distributed a few specimens, from hedges at Kew, of a bramble that comes in between *Balfourianus* and *corylifolius* var. *intermedius*. It has angular barren stems, copious large prickles on the rachis of its panicle, and ascending fruit-sepals.

Lythrum hyssopifolium. This I gathered last year in small quantity on the Surrey side of the Thames above Kew Bridge.

Helosciadium nodiflorum var. *ochreatum*, DC. (*Sium hybridum*, Merat.) Barnes Common, Surrey, G. NICHOLSON. This is a dwarf form of *nodiflorum* with small obtuse leaflets, one to three lanceolate bracts, and flower-umbels on peduncles one-quarter to one-half of an inch long. From *H. repens*, which is very rare in Britain, with which it is sometimes confounded, it differs by its assurgent flowering stems and shorter peduncles.

Sedum Forsterianum. Limestone rocks, Downton, Hereford, Rev. A. LEY.

Valerianella eriocarpa. A good supply from the neighbourhood of Penzance from Messrs. CUNNACK and WATERFALL.

Galium Bakeri. Myton Wood, near Leamington, Warwick, H. BROMWICH.

Carduus setosus. Borders of fields near Finchley Road Station, Middlesex, Dr. CRESPIGNY.

C. pycnocephalus, L. Limestone cliff under the Hoe, Plymouth, South Devon, T. R. A. BRIGGS. This is what I understand as the true *pycnocephalus*, as defined by those authors (such as Grenier and Godron), who separate it as a species from our common English *C. tenuiflorus*, Curt.

Hieracium "rigidum." From the river-banks, Bishop Auckland, Durham, J. P. SOUTTER. I should call *crocatum* and his "*H. gothicum*" from the same station *tridentatum*, of which latter Mr.

Nicholson has contributed a good supply this year from Hampstead Heath.

Specularia hybrida. Stackyard at West Newton, Cheviotland. A. BROTHERSTON. New to Northumberland.

Teucrium Botrys. A supply sent again this year by Mr. Beeby from the Sanderstead station.

Mentha pubescens. Pengersick Castle, J. CUNNACK; and stream on Pra Sands, near Helston, Cornwall, J. RALFS. This is the first time we have had a supply of this interesting mint, which was gathered a generation ago in the neighbourhood of Penzance by Mr. Borrer, but has been long sought for in vain by the resident botanists.

Acanthus mollis. Thoroughly established on a hedge-bank at Treath Manaccan, Cornwall, growing with *Allium Ampeloprasum*, W. B. WATERFALL.

Orobanche elatior. It seems quite clear now that the Epsom *Orobanche*, which has been called *luorum*, is only *elatior* pure and simple. Mr. A. Bennett sends it this year from "fields between the town and downs, proceeding from the back of the grand stand towards the town of Epsom."

Solanum nigrum. A form with the fruit bright green when ripe (*S. luteo-virescens* of Gmelin), from rubbish-heaps at Mortlake, Surrey, G. NICHOLSON.

Veronica Buxbaumii. A variety with very hairy stems, flowers smaller than usual, and fruit-carpels not ribbed till the plant is dried, from waste ground at Kew, G. NICHOLSON.

Symphytum asperrimum. The introduced British plant which has been so called by Babington in 'Flora Bathoniensis,' and Dr. Boswell in 'English Botany,' of which Mr. Flower sends us a good supply this year from the long-known station in the neighbourhood of Bath, and Rev. W. H. Purchas from Grange Mill, near Wirksworth, Derbyshire, is evidently not the true wild *S. asperrimum*, M. B., of the Caucasus, but a garden hybrid between that species and *S. officinale*, which is often planted for forage, and which is most likely *S. peregrinum*, Ledeb., Fl. Ross., vol. iii., p. 114. *S. asperrimum* is a plant that grows five or six feet high, with stems densely clothed with very short, rigid, bristly pubescence, many of the bristles springing from white calcareous tubercles, leaves rough over the face with bristle-pointed white tubercles, like *Anchusa italica*, lower leaves of the flowering branches ovate and contracted suddenly at the base, and a flower-calyx not more than one-eighth of an inch long, with linear-oblong obtuse teeth not longer than the tube. The naturalised hybrid has much less bristly stems, leaves without white tubercles on the face, lower leaves of the flowering branches both absolutely narrower and narrowed more gradually at the base, and a flower-calyx like that of *officinale*, with acute linear teeth twice as long as the tube. Mr. Flower tells me that the Bath plant grows sometimes to the height of a man, so that it is not inferior to the true *asperrimum* in stature, although in its leaves and flowers it seems much nearer to *officinale*. We have the true *asperrimum* in the Kew herbarium from the neighbourhood of Stirling, gathered by G. Thomson.

S. orientale, L. Roadside at How Capel, Hereford, where it has been established for several years, Rev. A. LEY.

Lysimachia ciliata. In sending a supply of this from the old station at Sebergham, in Cumberland, Rev. R. Wood writes:—"I have known it there for at least sixty-five years. There is still a considerable patch."

Plantago Timbali, Jord. Hay-field at Kelso, Roxburghshire, A. BROTHERSTON; and forage-field at Penzance (coll. W. Curnow). J. RALFS.

Amaranthus retroflexus. Waste ground at Richmond, Surrey, G. NICHOLSON.

Chenopodium opulifolium. Mud-heaps at Mortlake, Surrey, G. NICHOLSON.

Urtica pilulifera. The lower branches of several vigorous plants growing on rubbish-heaps at Kew had the deeply serrated leaves of typical *pilulifera*, whilst the upper part of the plant showed the entire or subentire leaves of var. *Dodartii*, G. NICHOLSON.

Polygonum alpestre, C. A. Meyer. On the Surrey side of the Thames, near Kew Bridge, where it was first gathered by Mr. Naylor in 1872, G. NICHOLSON. It is identical with *P. cognatum*, Meisn., and is common through Western Asia.

Rumex. Dr. Trimen has kindly examined the critical forms of *Rumex* received this year, and reports on them as follows:—"An interesting series of specimens is sent by Rev. Augustin Ley from the banks of the tidal river Wye at Tintern, collected at the end of July, 1878. This Dock-vegetation in Monmouthshire is apparently much the same as that of the tidal Thames.

"*Rumex*, form of *conglomeratus*, Murr." This is a rather slender form with ascending branches, but scarcely var. *Borreri*.

"*Rumex*, hybrid. Tidal banks, Tintern." These are various forms of *R. pratensis* (*crispus* × *obtusifolius*).

"*Rumex elongatus*, Gussone? Muddy tidal banks, Tintern, 30th July, 1878." A fine series of large specimens of this; quite the same as the Thames plant. Whatever may be its proper name, it cannot be separated as a species from *R. crispus*. In some of Mr. Ley's specimens the petals are denticulate, as in *R. crispus*, and one has the lower leaves slightly crisped. There is a suggestion of *R. Hydrolapathum* about this river-side Dock, but I do not think it is a hybrid between that species and *R. crispus*.

"*Rumex* hybrid, *pulcher* × *obtusifolius*. Waste ground, West Head, East Cornwall, near the sea, 12th July, 1878." Portions of a large plant. I agree in the naming, but have not seen English specimens of this intermediate before. *R. obtusifolius* predominates.

"*Rumex* hybrids. Waste ground by the sea, West Head," and "Hedgerow near Millbrook, East Cornwall, 12th July." These are *R. pratensis* more or less typical. "Field near Cawsand, E. Cornwall." The same; a curious form, close to *R. crispus*, and with the tubercles almost entirely suppressed.

There are now on record a number of intermediate and probably

hybrid forms of *Rumex* in England. The species which seem most prone to cross are *R. pulcher*, *R. crispus*, and *R. conglomeratus*. I have seen English specimens of apparently the following hybrids:—

<i>Rumex pulcher</i>	× <i>rupestris</i> .
„ „	× <i>obtusifolius</i> .
„ „	× <i>conglomeratus</i> .
„ „	× <i>nemorosus</i> ?
„ „	× <i>crispus</i> .
„ <i>crispus</i>	× <i>obtusifolius</i> (<i>R. pratensis</i> , M. & K.)
„ „	× <i>nemorosus</i> .
„ „	× <i>domesticus</i> (<i>R. conspersus</i> , Hartm.)
„ <i>conglomeratus</i>	× <i>maritimus</i> (<i>Warrenii</i>).
„ „	× <i>sylvestris</i> .

Of these *R. pratensis* (*crispo-obtusifolius*) is by far the most common. This is an exceedingly variable plant, showing a series of forms completely connecting its two supposed parents. Probably the plants are often again crossed by either *crispus* or *obtusifolius*, and secondary hybrids result; it is convenient for further distinguishing these forms to call them *crispo-pratensis* or *obtusifolio-pratensis*.—H. TRIMEN, 28th February, 1879.

Rumex maximus. A supply this year from ditch-sides at Lewes, Sussex, J. H. JENNER; Kelvedon, Essex, E. G. VARENNE; and St. Mary's, Scilly (coll. W. Curnow), J. RALFS.

Wulfia arhiza. A good supply this year from a new station, a pond near the canal between Hanwell and Brentford, Middlesex, G. NICHOLSON.

Potamogeton Zizii, C. & S. A plant sent by Mr. Brotherston from Cauldshiels Loch, near Melrose, Roxburghshire, matches German specimens so labelled in the Kew herbarium by Dr. A. Braun. *P. Zizii* appears to be a large deep-water form of *heterophyllus*, simulating *P. lucens* in general habit, and destitute of floating leaves. The same plant is in Borrer's herbarium from Llyn Maclog, in Anglesea, gathered by Wilson.

Zannichellia polycarpa. Brackish ditch in the Peoples' Park at Belfast, S. A. STEWART. An interesting addition to the Irish flora.

Zostera angustifolia. Dr. Trimen points out that a plant gathered by Mr. Waterfall at Plymouth, and labelled *Z. nana*, is properly *angustifolia*, and that the true *nana*, of which Mr. Ralfs has sent a good supply from Cornwall, may be readily distinguished in the absence of flowers by its strictly 1-nerved leaves.

Najas flexilis. A supply sent this year by Mr. Stewart and Dr. Boswell from the Scotch station.

Allium carinatum. Sandy banks of the Esk, above Musselburgh, in large quantity, A. CRAIG-CHRISTIE.

“*Iris Pseudo-Acorus*, Boreau, Flore du Centre de la France. (*I. Pseudacorus*, Linn., var. *genuina*, Syme Eng. Bot.) Banks of Thames, Kew, Surrey, and fish-pond, Sion House, Isleworth, Middlesex. This is a very distinct *Iris*, and easily distinguished from the prevailing form (*I. acoriformis*, Boreau,

with which it is probably frequently confounded) by the following characters:—*I. Pseudacorus*, Boreau. Outer perianth-segments of a uniform clear yellow colour; blade broadly obovate; claw rather short; stigmas long and narrow.—*I. acoriformis*, Boreau. Blade of outer perianth segments nearly orbicular, a deeper blotch at base; claw long, greenish yellow marked with prominent violet-purple veins; stigma shorter and broader than in last-named, and the yellow of the flower almost a shade less deep.”—G. NICHOLSON.

Carex muricata var. *pseudo-divulsa*. Name authenticated by Dr. Boswell. “(Root from Lauder, Berwickshire), June, 1878. I brought the plant several years ago from a wood near Lauder, and planted it alongside a plant of the common *C. muricata* of the district. At all times they look very different, this being much the strongest grower, and also a good deal earlier in flowering than *muricata*.”—A. BROTHERSTON. Mr. Charles Bailey sends the same plant from a lane at Pepplesham, near St. Leonard’s, Sussex.

C. punctata. Dr. Trimen points out that a plant so labelled, gathered by Mr. Stewart on rocky shore at Dingle, Kerry, is properly a small form of *distans*.

Panicum Crus-galli. Tweed-side, Roxburghshire, abundant in 1878; introduced with foreign wool.—A. BROTHERSTON.

Leersia oryzoides. Ditch on Shalford Common, near Godalming, Surrey, A. BENNETT. A new station.

Bromus Benckenii. “Garden grown; root from Eaton Bishop, Herefordshire, July, 1878, A. LEY. This appears to be correctly referred to *B. Benckenii*, Lange, differing from that plant mainly in its greater luxuriance and more ample panicle, the result probably of garden cultivation. Specimens of the original wild plant, with notes on its locality and distribution, would be of great interest.”—H. TRIMEN.

Ophioglossum vulgatum, L., β *ambiguum*, C. & G. “Pasture at the west end of the Calf of Flotta, Orkney, August 2, 1878. Discovered on the above date by Mr. Wm. A. Irvine Fortescue. I have seen two specimens of this plant from near the Black Crag, Stromness, where Miss Patricia Deuchar first found it in 1877. These two stations and Dr. Boswell’s one at Veness, and that at Swanbister, in Orphir, are all at the seashore.”—H. HALCRO JOHNSTON, December 31, 1878.

MR. CHARLES BAILEY having kindly undertaken the general management of a new Exchange Club, all subscriptions must for the future be paid to him, and parcels and other communications addressed to him, care of Messrs. Ralli Brothers, Peter Street, Manchester. I also take this opportunity of informing many of my correspondents that I am leaving 23, Gloucester Road, Kew, and that my only address will now be Royal Herbarium, Kew.

J. G. BAKER.

THE
BOTANICAL EXCHANGE CLUB.

LIST OF DESIDERATA

FOR
1878.

CLUB REGULATIONS AND LIST OF MEMBERS.

LONDON:

PRINTED BY T. P. NEWMAN, 32, BOTOLPH LANE,
EASTCHEAP, E.C.

1878.

REGULATIONS OF THE CLUB.

1. THE object of the Botanical Exchange Club is to facilitate the exchange of dried specimens of British plants, especially of critical species and varieties. Anyone wishing to become a member will be admitted on payment to the Secretary of an annual subscription of Five Shillings, and on sending a parcel of dried plants in accordance with the subsequent rules. He will then be entitled to share in the distribution of specimens made in the early part of the year following that in which his subscription and parcel were sent.

2. Specimens sent for distribution must be carefully dried; must not exceed in size half-a-sheet of demy (16 by 10 inches); and must illustrate the species they represent as completely as possible. Plants more than sixteen inches long should be once or twice folded, if by so doing the roots can be preserved. (In the *Cyperaceæ*, *Gramina*, and smaller Ferns no specimens should be sent without roots, except in the case of very rare species, which might be in danger of extermination.) No plant must be sent that is not included in the List of Desiderata for the current year, unless it be additional to those enumerated in the 7th edition of the 'London Catalogue of British Plants,' or be from an unrecorded station, or be an unrecorded variety.

3. *Each specimen* must have a label, bearing the number and name of the species as given in the 7th edition of the 'London Catalogue'; also the locality and county where, and the date when, the specimen was collected, and the collector's name. The label should be affixed to the specimen by cutting a transverse slit in the base of the label through which the specimen may be pushed. Any facts connected with a species which the sender thinks important and suitable for the 'Report' should be communicated on a separate piece of paper, *written on one side only*. Such piece of paper should be about seven inches wide, and the notes on each species should be dated and signed by the writer. Specimens sent not in accordance with Rules 2 and 3 will be destroyed.

4. Each parcel should be accompanied by a list of the plants the member wishes to receive from the Club. This list is to be made by drawing a short line before their names in the 7th edition of the 'London Catalogue.*' Species especially wished for should have a ! before the horizontal line. The name of the member and address to which the return parcel is to be sent, and any special directions as to how the parcel is to be sent, should be written on the outside of the 'Catalogue.' When the same copy of the 'Catalogue' is used a second time the species which are no longer wanted, but which were marked the first time, should have a perpendicular line drawn through the horizontal line. Manuscript lists of desiderata will not be received.

5. Parcels may be sent (*carriage paid*) to any of the following gentlemen not later than the 31st of December:— Dr. BOSWELL, Bahmuto, Kirkcaldy, Fife; Mr. T. R. A. BRIGGS, Richmond Villa, Saltash Road, Plymouth; Mr. J. G. BAKER, Kew Herbarium; and Mr. CHARLES BAILEY, care of Ralli Brothers, Peter Street, Manchester. Those that arrive after that date will not be available for the distribution for the current year. Members sending more valuable parcels will have their return parcels selected before those who send inferior ones.

6. Members who do not send parcels, but who have been members of the Botanical Exchange Club previous to 1872, and paid their subscription for the current year before December 31st, will share in the annual distribution; but the specimens for such non-contributing members will not be selected until the parcels of all the contributing members have been made up, and they cannot be selected according to lists of desiderata; but *general* instructions, such as the desire to receive plants of particular districts, natural orders, or genera, will be attended to by the distributor. In future no new members will be received by the Botanical Exchange Club except those who contribute specimens of plants.

* Published by Mr. R. Hardwicke, 192, Piccadilly, London, W. (Price 6d., post free 7d.)

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Waterfall, W. B.	-	-	-	14, Sea View Terrace, Plymouth.
Webb, F. M.	-	-	-	Royal Botanic Gardens, Edin- burgh.
Webster, G.	-	-	-	Holgate, York.
Whittaker, J.	-	-	-	Morley, Derby.
White, C. F., F.L.S.	-	-	-	42, Windsor Road, Ealing.

LIST OF DESIDERATA FOR 1878.

N.B.—Of any of the species in the following List, specimens varying in number from 10 to 50, according to its degree of rarity, will be acceptable.

<p>Thalictrum majus, var. a Kochii saxatile riparium Morisonii nigricans angustifolium</p> <p>Anemone apennina ranunculoides</p> <p>Ranunculus Bachii elongatus radians marinus salsuginosus tripartitus ophioglossifolius reptans vulgatus tomophyllus parvulus chærophyllus</p> <p>Caltha minor radicans</p> <p>Delphinium Ajacis Consolida</p> <p>Aconitum Napellus Pæonia corallina Epimedium alpinum Nuphar intermedia punila Papaver strigosum Glaucium violaceum phœniceum Chelidonium laciniatum (<i>sponte</i>) Fumaria Boræi muralis</p>	<p>Sinapis incana Brassica Napus sylvestris</p> <p>Sisymbrium Irio Matthiola incana Arabis stricta ciliata hispida Turrita</p> <p>Barbarea arcuata intermedia</p> <p>Nasturtium siifolium Armoracia rusticana (fruit) Cochlearia (any abnormal forms)</p> <p>Draba inflata Camelina sativa sylvestris</p> <p>Subularia aquatica Helianthemum Breweri vineale grandiflorum</p> <p>Viola sepincola calcarea arenaria intermedia stagnina Curtisii, vars. a, b, and c</p> <p>Drosera obovata Polygala grandiflora oxyptera austriaca uliginosa</p> <p>Dianthus glaucus Caryophyllus</p> <p>Lychmis alpina (England)</p>
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- Holosteum umbellatum
 Cerastium holosteoides
 pentandrum
 alpestre
 serpentini
 pubescens
 nigrescens
 Andrewsii
 trigynum
 Arenaria Lloydii
 norvegica
 ciliata
 Alsine hybrida
 uliginosa
 Sagina alpina
 nivalis
 Spergularia media
 Herniaria glabra
 Scleranthus biennis
 Elatine Hypopiper (fruit)
 Hypericum angustifolium
 linarifolium
 hircinum (*sub-sponte*)
 elatun (*sub-sponte*)
 Althæa hirsuta
 Lavatera sylvestris
 Malva borealis
 parviflora, *L.*
 Geranium prostratum
 lancastricense (*sponte*)
 modestum
 purpureum
 Erodium chærophyllum
 Ononis repens
 reclinata
 Medicago sylvestris
 apiculata
 lappacea
 Trifolium sylvestre
 Townsendi
 filiforme (Scotland)
 Lotus angustissimus
 Oxytropis Halleri
 campestris
 Astragalus alpinus
 Vicia bithynica, var. *b.*
 Orobus (fruit)
 Lathyrus tuberosus
 palustris (fruit)
 acutifolius
 sphæricus
 Orobus niger
 Alchemilla conjuncta (*sponte*)
 Potentilla norvegica
 Sibbaldia procumbens
 Fragaria elatior (*sub-sponte*)
 Rubus Leesii
 Rubus suberectus
 plicatus
 affinis
 lentiginosus
 incurvatus
 inbricatus
 ramosus
 latifolius
 pubescens
 thyrsoides
 Grabowskii
 Colemanni
 Salteri
 calvatus
 carpinifolius
 villicaulis
 derasus
 adscitus, *Genev.*
 macrophyllus
 Schlectendalii
 amplificatus
 glaberrimus
 Borreri
 Bloxamii
 Hystrix
 pygmaeus
 scaber
 mutabilis
 Leightoni
 denticulatus
 Kœhleri (verus)
 infestus
 pallidus
 fusco-ater
 Briggsii
 Lejeunii
 pyramidalis
 humifusus
 foliosus
 Bellardi
 hirtus
 Balfourianus
 conjugens
 purpureus
 althæifolius
 tuberculatus
 cæsius, vars., named
 Chamæmorus (Wales)
 Dryas depressa
 Rosa rubella
 Robertsoni
 Smithii
 lævigata
 Moorei
 occidentalis
 cordifolia
 Grovesii

Rosa pomifera	Myriophyllum pectinatum
cærulea	Callitriche verna (fruit)
suberecta	truncata
farinosa	autumnalis
sylvestris	Ribes sylvestre
obovata	Smithianum
permixta	spicatum
sylvicola	Sedum Fabaria
Briggsii	teretifolium
Hystrix	micranthum
sepium	dasyphyllum
Billietii	sexangulare
cryptopoda	albescens
pulverulenta	minus
surculosa	Forsterianum
sphærica	Saxifraga stellaris, var. vivipara
senticosa	Geum, vars. (Irish)
biserrata	hirsuta
frondosa	umbrosa
pruinosa	cæspitosa
incana	Sternbergii
toментella	decipiens
obtusifolia	sponhemica
latebrosa	Eryngium campestre (Kent)
aspermata	Cicuta virosa
collina	Helosciadium repens
concinna	Moorei
decipiens	Ligusticum scoticum
Hailstoni	Bupleurum aristatum
implexa	Oenanthe silaifolia (root-leaves)
coriifolia	Siler trilobum
Watsoni	Meum Athamanticum
celerata	Peucedanum palustre
Borreri	Tordylium maximum
Bakeri	Caucalis latifolia
systyla	Chærophyllum sativum
leucochlora	Coriandrum sativum
Desvauxii	Cornus suecica
opaca	Lonicera Caprifolium
Monsoniæ	Linnaea borealis
bibracteata	Galium erectum
austriaca	Mollugo, vars. b and c
Cotoneaster vulgaris	nitidulum
Mespilus germanica	elongatum
Pyrus scandica	anglicum
semipinnata	Vaillantii
fennica	Asperula arvensis
Pyrastrer	taurina
Achras	Valeriana pyrenaica
Briggsii	Valerianella carinata (new stations)
Lythrum Hyssopifolia	eriocarpa and b. glabra
Epilobium anagallidifolium	Onopordum Acanthium
Eriogonum biennis	Carduus pycnocephalus, Jacq.
odorata	polyanthemos
Isnardia palustris	litigosus
Circæa intermedia (lutetiana)	tuberosus
intermedia (alpina)	setosus

Carduus hybrida (any)

— Arctium eu-minus
intermedium
nemorosum

Saussurea alpina

Centaurea paniculata

Matricaria inodora, vars. b and c.

Anthemis anglica

Diotis maritima

Artemisia campestris
gallica

Filago apiculata

Gnaphalium pilulare
luteo-album

norvegicum

hyperboreum

Senecio vulgaris, var. hibernica

paludosus

palustris

maritima

Bidens radiata

hybrida

Inula salicina

Aster salignus

Solidago angustifolia

Arnoseris pusilla

Hypochæris Balbisii

Pieris arvalis

Leontodon pratensis

— Tragopogon grandiflorus

Taraxicum lævigatum

Lactuca Scariola

Mulgædium alpinum

Sonchus glabra

palustris

Crepis setosa

succisifolia

nicæensis

Hieracium. (Any named by competent authority, except—

Pilosella

aurantiacum

murorum

vulgatum (type)

maculatum

umbellatum

boreale

Campanula persicifolia (*sub-sponte*)

Rapunculus

Vaccinium uliginosum

Arctostaphylos alpina

Arbutus Unedo (*sponte*)

Loiseleuria procumbens

Menziesia cærulea

Erica hibernica

Pyrola rotundifolia

secunda

Pyrola uniflora

Monotropa hirsuta

Erythæra latifolia

Cicendia pusilla

Gentiana verna

nivalis

— germanica

Cuscuta lassiacæ

Solanum miniatum

Verbascum pulverulentum

hybrida (any)

Linaria Pelisseriana

repens, var. b.

speciosa

purpurea (*sub-sponte*)

hybridæ (any)

Veronica verna

humifusa

spicata

hirsuta

tenella

Euphrasia officinalis, vars.

Bartsia rotundata

alpina

Rhinanthus major

Melampyrum cristatum

ericetorum

Orobanche arenaria

cærulea

caryophyllacea

elatior

Picridis

~~541~~ Mentha alopecuroides (*sponte*)

sylvestris, vars. b and c

crispa

vulgaris

pubescens

citrata, flowers (*quasi-sponte*)

hirsuta, var. b

paludosa

subglabra, *Baker*

rubra

gracilis

cardiaca (*quasi-sponte*)

pratensis

gentilis, vars.

arvensis, vars. b, c, d, e, f

erecta

Thymus Serpyllum, forms of
Chamædrydrys

Origanum macrostachyum

Calamintha Briggsii

Salvia clandestina

pratensis

Melittis Melissophyllum

Ballota ruderalis

- Stachys germanica
 Galeopsis intermedium
 ochroleuca
 bifida
 Lamium decipiens
 Ajuga pyramidalis
 Teucrium Botrys (Sanderstead)
 Myosotis strigulosa
 alpestris (England)
 Mittenii
 Anchusa officinalis
 Asperugo procumbens
 Pinguicula grandiflora
 alpina
 Utricularia neglecta (flowers)
 minor (flowers)
 intermedia (flowers)
 Bremii
 Primula scotica
 Cyclamen hederifolium
 Lysimachia punctata
 ciliata
 Armeria duriuscula
 Statice pyramidalis
 Dodartii
 Plantago Timbali
 hirsuta
 arenaria
 Amaranthus Blitum
 Salicornia procumbens
 radicans
 Chenopodium cymosum
 urbicum
 intermedium
 botryoides
 glaucum
 Atriplex erecta (E. B., iii.)
 prostrata
 triangularis
 pedunculata
 rosea, L.
 Rumex conglomeratus, forms of
 rupestris
 viridis, forms of
 Warrenii
 palustris
 obtusifolius, forms of
 conspersus
 elongatus
 aquaticus
 maximus
 alpinus
 hybridi (any)
 Polygonum agrestinum
 microspermum
 rurivagum
 littorale
 Polygonum maritimum
 elatum
 Hippophaë rhamnoides
 Daphne Mezereum
 Asarum europæum (*sponte*)
 Euphorbia Peplis
 hiberna
 pseudo-Cyparissias
 Cyparissias
 coralloides
 dulcis
 Mercurialis ambigua
 Ceratophyllum submersum
 Parietaria fallax
 Urtica pilulifera
 Dodartii
 Ulmus glabra
 montana, vars. b and c
 Quercus intermedia
 Populus alba (female flowers)
 canescens (female flowers)
 tremula, var. b
 Salix viridis
 Russelliana
 purpurea (male flowers)
 Woolgariana
 Lambertiana
 Doniana
 Forbyana (male flowers)
 Helix
 hippophæifolia
 stipularis
 Smithiana
 pseudo-stipularis
 ferruginea (male flowers)
 rugosa
 acuminata
 oleifolia
 sphaacelata
 phylicifolia, vars. named
 nigricans, vars. named, except
 genuina and Damascena
 ambigua and vars.
 repens, vars. named
 rosmarinifolia
 angustifolia
 Laponum and vars.
 Arbuscula and vars.
 Myrsinites, vars.
 Grahami
 Bakeri
 Moorei
 Sadleri
 Pinus sylvestris (*sponte*)
 Pinaster
 Taxus fastigiata
 Typha media

- Typha angustifolia
 Sparganium affine
 Arum italicum
 Potamogeton pseudo-fluitans
 linearis
 plantagineus
 sparganiifolius
 Lonchitis
 lanceolatum (floating
 leaves)
 acuminatus
 decipiens (flowers)
 longifolius
 prælongus
 zosterifolius
 acutifolius
 mucronatus
 trichoides
 pectinatus (type)
 filiformis
 macrostemon
 Zannichellia polycarpa (*Gay*)
 Ruppia spiralis
 Zostera nana
 Naias flexilis
 Zcheuchzeria palustris
 Alisma lanceolatum
 natans
 Stratiotes aloides
 Orchis hircina
 purpurea
 militaris
 Simia
 laxiflora
 incarnata
 Neotinea intacta
 Ophrys arachnites
 Spiranthes æstivalis
 gemmipara
 Epipactis ovalis
 violacea
 Cephalanthera rubra
 Epipogon aphyllum
 Corallorhiza innata
 Liparis Loeselii
 Cypripedium Calceolus
 Sisyrrinchium Bermudiana
 Gladiolus illyricus
 Iris citrina
 Pseudacoris, genuina
 Bastardi
 tuberosa
 Crocus aureus
 biflorus
 Narcissus Bromfieldii
 major
 poeticus
 Narcissus Tazetta (Cornwall)
 Leucojum vernum
 Polygonatum verticillatum
 officinale
 intermedium
 Lloydia serotina
 Ornithogalum pyrenaicum
 Muscari racemosum
 comosum
 Allium Ampeloprasum, vars. a and b
 Babingtonii
 vineale, var. a
 complanatum
 Schænoprasum
 carinatum
 paradoxum
 Simethis bicolor
 Luzula Borreri
 sudetica
 Juncus filiformis (Scotland)
 macrocephalus
 Kochii
 Scirpus uniglumis
 parvulus
 Holoschænus (root-leaves)
 pungens
 Eriophorum alpinum
 gracile
 Carex rupestris
 incurva
 paradoxa
 pseudo-divulsa
 Boeninghausenia
 lagopina
 alpicola
 bracteata
 alpina
 Buxbaumii
 stricta
 Watsoni
 uliginosa
 Gibsonii
 Micheliana
 stictocarpa
 irrigua
 ericetorum
 tomentosa
 vaginata
 ustulata
 frigida
 punctata
 speirostachya
 sterilis
 ebracteata
 involuta
 Grahami
 Chamagrostis miniua

Digitaria humifusa	Asplenium fontanum
Echinochloa Crus-galli	Athyrium molle
Hierochloa borealis	incisum
Anthoxanthum Puelii	Cystopteris dentata
Alopecurus pronus	Dickieana
Watsoni	alpina
Sesleria flavescens	montana
Agrostis interrupta	Aspidium Lonchitis
Calamagrostis Hookeri	lobatum
tenella	Nephrodium affine
Corynephorus canescens	abbreviatum
Aira cæspitosa, vars. b and c	pumilum
uliginosa	cristatum
montana	remotum
caryophyllea, vars. E. B. iii.	uliginosum
Avena strigosa	collinum
fatua, vars. b and c	nanum
Koeleria albescens	glandulosum
Poa stricta	Polypodium flexile
laxa	Gymnogramme leptophylla
glauca	Ophioglossum lusitanicum
Balfourii	Botrychium rutaceum
Parnellii	Lycopodium annotinum
Cynosurus echinatus	Isoetes echinospora
Festuca ovina, vars. b, c, and d	Hystrix
sylvatica	Equisetum pratense (fruct.)
arundinacea	alpestre
Bromus Benekenii	subnudum
rigidus	paleaceum
pubescens	variegatum
Lloydianus	arenarium
patulus	Wilsoni
Brachypodium glabrescens	trachyodon
Triticum biflorum	Chara flexilis
pungens	syncarpa
acutum	translucens
Lolium arvense	mueronata
linicola	gracilis
Trichomanes radicans	tenuissima
Andrewsii	glomerata
Adiantum Capillus-Veneris	intricata
Asplenium germanicum	alopecuroides
anceps	crinita
microdon	hispida
acutum	tomentosa
serpentini	fragifera

Any of the "Excluded Species," in addition to those named in the above List, will be acceptable, except—

Petasites fragrans
Linaria supina
 purpurea

Veronica peregrina
Poa sudetica
Ceratochloa unioloides

