

THE

BOTANICAL EXCHANGE CLUB.

REPORT OF THE CURATOR

FOR 1869,

AND

LIST OF DESIDERATA

FOR 1870.

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THE
BOTANICAL EXCHANGE CLUB.

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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. Any one wishing to become a member will be admitted on payment, to either of the Secretaries, of an annual subscription of Five Shillings; and on sending a parcel of dried plants in accordance with the subsequent rules will be enrolled as a "contributing member." He will then be entitled to share in the distribution of specimens made in January 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 16 inches long should be once or twice folded, if by so doing the roots can be preserved. (In the *Cyperaceæ*, *Graminæ*, 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 need be sent that is not included in the list of desiderata for the current year, unless it be additional to those enumerated in the 6th edition of the 'London Catalogue of British Plants.'

3. *Each specimen* must have a label, bearing the number and name of the species as given in the 6th 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 'Réport' should be communicated on a separate piece of paper, written on one side only. 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 6th edition of the 'London Catalogue.'* The name of the member and address to which the return parcel is to be sent should be written on the outside of the Catalogue. Manuscript lists of desiderata will not be received.

5. Parcels may be sent (*carriage paid*) either to Mr. J. G. Baker or to Dr. Boswell-Syme not later than the 31st of December; 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 paid their subscriptions for the year, and sent lists of desiderata 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.

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

REPORT FOR THE YEAR 1869.

BY THE CURATOR.

In sending out this Report of the Botanical Exchange Club, I must offer an apology to the members for its very late appearance. The parcels were received by me from Mr. Baker in the end of January. At that time the recent sudden death of Mr. J. E. Sowerby, who had had charge of the plates for the third edition of 'English Botany,' had brought upon me a large addition to my usual labours in connection with that work, which greatly delayed the examination and redistribution of the club parcels; but I can assure the members of the club that I have not altogether sacrificed their convenience to the claims of 'English Botany,' for as yet I have not found time to write the description of a single grass for the concluding volume of the book.

Thalictrum minus, L., *maritimum*. I have sent to all the members desiring it specimens of the flower and fruit of this plant, collected at Kirkealdy, Fife. In the third edition of 'English Botany' I divided *T. minus*, L., into *T. eu-minus* (with two varieties, *maritimum* and *montanum*) and *T. flexuosum*, Bernh. This is certainly wrong; *T. maritimum*, *T. montanum*, and *T. flexuosum* must stand in the same rank. Whether they should be considered as subspecies or as varieties, is a question I do not yet feel able to determine. *T. maritimum* I have in cultivation, both from roots and from seed. I should feel much obliged to botanists who would furnish me with ripe seed of *T. montanum* and *T. flexuosum*, which, I may mention, must, to ensure germination, be sown in the same autumn in which it ripens.

Ranunculus peltatus, Fries, form approaching *R. pseudo-fluitans*, Bab. A few specimens were sent to those supposed to be interested in Batrachian *Ranunculi*, which I believe to show a transition from one form into the other. They were collected in a rapid stream running into Loch Leven, a little to the north of the South Queich river. At the

mouth of this stream, in the still waters of the loch, the normal form abounds. I visited the locality in the end of May this year, and found the *Ranunculus* had disappeared from the stream, no doubt washed into the loch by the winter floods; and at the mouth of the stream I could find nothing but the ordinary *R. peltatus*.

Ranunculus reptans, L. Of this plant I collected on the shore of Loeh Leven sufficient specimens to supply all the members who asked for it, where it grows in company with *Littorella*, *Scirpus acicularis*, and *S. palustris*. In this situation it is very constant in appearance, but my faith in its distinctness, even as a subspecies, is considerably shaken by the following circumstances:—

In the sandy pastures by the side of the loch *R. Flammula*, var. *pseudo-reptans*, abounds; and in ditches by the side of cultivated fields the normal form of *R. Flammula*. At the end of May in the present year I find that the whole of the ground where *R. reptans* grows is under water. Can it be that *R. pseudo-reptans* is a depauperate, and *R. reptans* an inundatal form of *R. Flammula*? I have several pots of *R. reptans* subjected to different treatment, but hitherto the plant has not appeared, although, on disturbing the earth, I find the roots still alive,—the only exception being a pot submerged in a tank, in which case a few tufts of small radical leaves have appeared.

Ranunculus acris, var. *vulgatus*. A large supply of this plant has been sent from Wiltshire by the Rev. T. A. Preston; from Somerset and Gloucester, by Mr. J. F. Duthie; and from Cheshire, by the Hon. J. L. Warren. These specimens exhibit a complete transition from a horizontal rhizome, 4 or 5 inches long, to a nearly perpendicular one, of less than half an inch in length; and as in the leaves, flowers, and carpels they present no tangible nor constant difference, it seems impossible to separate *R. Steveni*, with a creeping rhizome (to which the form *R. vulgatus*, Jord., must be referred), from *R. Borœanus*, Jord., to which *R. tomophyllus* belongs. In *R. acris*, therefore, we have the very unusual feature of some forms possessing a distinctly creeping rhizome, while in others the rhizome does not creep, and dies rapidly off towards the base. Both Mr. Preston and Mr. Duthie have been good enough to send me living plants with creeping rhizomes, by observing which I hope to ascertain whether or no the direction and persistent vitality of the rhizome continues permanent under cultivation, or whether it be a feature depending on peculiarity of soil or on certain conditions of climate.

All the specimens I have yet seen with a creeping rhizome have come from the western counties of England, while, strange to say, M. Lloyd states that all the *R. acris* of the west of France is *R. Boræanus* with a premorse rootstock. A few days ago Mr. Preston sent me specimens of *R. vulgatus* with an elongate rhizome, but with the stems either perfectly glabrous or furnished with a few adpressed hairs.

Ranunculus parvulus, L. "From wet ground adjacent to a pond on a heath in the parish of Worplesdon, Surrey. This state of *R. Philonotis* ought to have been entered in the 'London Catalogue of British Plants' as a subvariety under *R. hirsutus*. It differs more from the type, whether called *R. Philonotis* or *R. hirsutus*, than do many other varieties which have been admitted into the 'Catalogue.' Indeed, the first-sight appearance of this dwarf or depressed form is so unlike the tall and upright state usually seen in cornfields, that a young botanist might well overlook their specific sameness."—H. C. WATSON.

Papaver dubium, L. I have contributed a few examples of a plant which seems intermediate between *P. Lamottei* and *P. Lecoqii*, having the much-divided leaves and bright scarlet flowers of the latter, and the permanently white sap of the former. Unfortunately, I was unable to procure the capsules, from the grain being cut when I went to look for them. This form occurred both near Burntisland and Kirkealdy. In the latter station it was associated with normal *P. Lamottei*, which there was much more abundant than the supposed intermediate form.

Cochlearia danica, L. "King's Quay, Isle of Wight. There are only two previously recorded stations in the Isle of Wight, viz. Freshwater and Bembridge."—FRED. STRATTON.

Nasturtium sylvestre var. In September, 1869, I gathered some specimens of *Nasturtium sylvestre* on the banks of the Tay below Perth which were remarkable for their very short silicles; perhaps, however, this was owing to arrested development of the later flowers, and certainly in many of the silicles the seeds were abortive, though not in all. There can be little doubt that it was specimens of *N. sylvestre* in this condition which at one time were believed to be *N. anceps*. It is now universally admitted that the true *N. anceps* has not occurred in Britain.

Matthiola incana, R. Brown. "Whether or not this plant is indi-

genous at Compton, Isle of Wight, is perhaps a matter of doubt. Evidence of the non-existence of the plant there many years ago may be drawn from the fact that no mention is made of it by any of the older botanists who visited the locality, although 'Rocke Sampier' is constantly noted by them as a plant growing 'in the white cliffs on the south side of the Isle of Wight.' It is not probable that so conspicuous a plant as *Matthiola incana*, growing in the same localities as *Crithmum maritimum*, would have been either overlooked or not considered worthy of being noted. The first notice of this plant as occurring in the Isle of Wight appears to be that given by Dr. Bromfield in his 'Flora Vectensis,' and there the principal station is represented to be at Steephill, the Compton station being recorded as an additional one. In 1868, I do not believe the plant existed at Steephill,* but on the cliffs east of Ventnor the plant was very abundant in that year, though, from the fact of the gardens of the houses extending to the edge of the cliff, great doubt would attach to the character of the station. At Compton this is not the case; the nearest house or garden is at Compton Farm, nearly half a mile from the shore. There are some slight differences between the plants from these two stations, which is possibly due to the fact that the cliffs at Compton are very pure hard white chalk; those east of Ventnor, a soft crumbling chalk marl. The leaves of the plants at Compton are much more densely clothed with hairs than those of the Ventnor plants, and the flowers of the latter are of a bright rose colour, whilst those of the former have generally more of a purple tint."—FRED. STRATTON.

Brassica campestris, L. "The wild state of the common Turnip, from hedgebanks and ditch-sides in fields adjacent to the Thames, on the Surrey side of the river, opposite to Sunbury; growing also in plenty on the Middlesex side of the river. As collectors observe this plant mostly in spring or summer, after the grass-green and hispid radical-leaves have faded away, they have usually misnamed it as *Brassica Napus*. Hence, the desirability of distributing examples in their late autumnal and winter state. Full explanations of my views on this species may be seen in the 'Journal of Botany' for December, 1869."—H. C. WATSON.

Viola lactea, Sm. "From a disused brick-field, on a heath-covered waste, by the left side of the road from Bagshot to Ascot Station, just

* It grew at Steephill in 1866.—H. TRIMEN.

within the county of Berks. New to the sub-province of West-Thames."—H. C. WATSON.

Pyrus scandica, Bab. Mr. T. R. Archer Briggs contributes a large supply of specimens from the neighbourhood of Plymouth. These, like the other Devonshire specimens I have seen, resemble the *Sorbus Mougeoti*, Soyer and Gand., having the leaves less deeply lobed at the base than at the middle; but they differ from authentic Continental specimens, in having the leaves firmer, more glossy above, and with the lowest lobes more acute and more spreading. In the leaves, indeed, the Devonshire specimens show an approximation towards *S. latifolia*, Pers.

Pyrus fennica, Bab. Under this name Mr. A. Craig Christie has sent for distribution specimens from the Isle of Arran. These are precisely identical with the genuine Scandinavian form of *S. scandica*. Do both *P. scandica* and *P. fennica* grow wild in Arran, or are the Arran specimens which have leaves with the lower pinnae separate *P. scandica*, var. *pinnatifida*, of Fries? In the second edition of the Nov. Fl. Succ. p. 139, Fries mentions this variety, and refers to it the *P. pinnatifida* of Smith, and says it is to be carefully distinguished from *Sorbus hybrida* (*P. fennica*). The plant referred to by me as *P. semi-pinnata*, Roth, in the third edition of 'English Botany' is the true *Sorbus hybrida*, L. fil., and the *S. fennica*, Fries, as proved by Norwegian specimens collected by the late Professor Blytt, received by me since the third volume of the book mentioned was written. After seeing these specimens I have no doubt that the plant I described as *P. fennica* is really *P. scandica*, var. *pinnatifida*. Fries says of it, in the 'Summa Vegetabilium Scandinaviæ' (p. 170), that it is everywhere confounded with *S. fennica*, but certainly truly distinct by the fruit; for the fruits of *S. fennica* are acid, and in appearance very similar to those of *S. aucuparia*.

Hieracium sp. Mr. J. Ward sends cultivated specimens of a *Hieracium* from Orme's Head, which are probably a very abnormal form of *H. pallidum*. They have the petioles much longer and the leaves narrower and more attenuated at each end than in any specimens of *H. pallidum* which I have seen, but in other respects they resemble that species, which is very variable in its foliage.

Centaurea nigra, L. var. "In the Isle of Wight specimens of *C. nigra*, L., now before me, there appear to be four states or varieties

having more or less distinct characters. 1. There are plants having broad leaves, heads without ray-florets, and phyllaries not only concealed by their appendages, but with these appendages also concealed by the dense filamentous fringe. This form has some of the upper leaves, particularly those at the junction of the branches, somewhat auricled at the base, and almost entire, or with but few teeth. The form seems to be a very rare one in the Isle of Wight; I have met with it in one locality only, a moist meadow near the salt water river Medina. 2. A plant very like No. 1, but having generally rayed heads, with less densely hairy phyllary-appendages, and leaves less broad, with no auricles at the base of the upper ones, and very faintly dentate. This form grows on heathy pasture, with clay and gravel underneath. 3. Growing with No. 2, are plants having heads always rayed and phyllary; appendages scarcely concealing the phyllaries, and with much shorter fringe; the leaves very narrow and hardly dentate. The same form grows also on the chalk as at Bowcombe. 4. On the chalk downs grows a plant generally diminutive, but occasionally becoming tall and branched. A great portion of the phyllaries is not covered by the appendages, the latter being small, with very short fringes, the phyllaries are also much more loosely set. The leaves of this form are usually broader in proportion than those of Nos. 2 and 3. I have sent a few examples of Nos. 2, 3, and 4, but of No. 1 I have not been able to obtain a sufficient number of specimens."—FRED. STRATTON.

Aster longifolius, Lam. In an excursion made to Perth in September, in which I had the benefit of the guidance of Mr. John Sim; he pointed out to me the *Aster*, which had been sent to Prof. Babington, and pronounced by that botanist to be *A. salignus*, Willd. The plant grows in great abundance over the couple of miles of bank which we traversed, and Mr. Sim assured me that it extended much further down the river side. As I stated in my last report, *A. salignus* is a doubtful plant, but if the Tay-side plant be *A. salignus*, that name is one of the numerous synonyms of the American *A. longifolius*, Lam. Prof. Babington is doubtless right in considering the Tay-side plant distinct from the Derwent-water *Aster*, sent to the Club last year by Miss Edmunds. Along with *A. longifolius* there grows on the banks of the Tay several other species of *Aster* in small quantity, among which are *A. puniceus*, L., *A. prenanthoides*, Muhl., and a

broad-leaved species which I believe to be *A. Novi-Belgii*, L., but which Mr. H. C. Watson inclines to call an abnormal growth of *A. brumalis*, Willd., a plant which according to Torrey and Gray is not certainly known to exist in North America, and is perhaps derived from *A. Novi-Belgii*.

Erythræa pulchella, Fries. "This condensed form grows in the salt marshy ground near King's Quay, Isle of Wight, the plants this year occupying a considerable space of ground, and standing up rather thickly together, with no other form of *Erythræa* intermixed with them, though both *E. Centaurium* and the ordinary form of *E. pulchella* grow in similar ground adjoining."—FRED. STRATTON. Mr. Stratton's specimens of *E. pulchella* are much more condensed than in the normal form, but very much less so than those collected by Mr. H. C. Watson in Guernsey.

Rumex conspersus, Hartm. (?) In August and September I collected specimens of a *Rumex* identical with the plant found by the late Dr. Walker-Arnott, in Kinross-shire, which, when the ninth volume of 'English Botany' was published, was thought, both by Mr. H. C. Watson and myself, to be *R. conspersus*, Hartm. Whether the Scandinavian *R. conspersus* be a species or not I do not know, but I am convinced that Dr. Walker-Arnott was right in considering the Kinross-shire plant a hybrid between *R. obtusifolius*, L., and *R. domesticus*, Hartm.; it is only found in company with these two species, and very few of the fruits of each panicle come to maturity, so that the fruit-panicle bears but few fruits with enlarged petals, the greater number remaining undeveloped.

R. crispo-obtusifolius? Under this name I have sent out specimens of a *Rumex* extremely similar to *R. pratensis*, Mert. and Koch, but differing in having but few of the fruits in each panicle coming to maturity; in the enlarged petals being rather larger and less highly coloured; and varying by the enlarged petals approximating more to those of *R. obtusifolius* on the one hand, and more to those of *R. crispus* on the other. It occurs near Balmuto, wherever these two species grow together; and I suppose it to be a hybrid between them, and not identical with the English *R. pratensis*. The Scotch specimens from Aberdeen and Musselburgh which I referred to *R. pratensis* in the third edition of 'English Botany,' are identical with the Fife plant, which, if not a hybrid, may be a sub-barren state of *R. obtusi-*

folius. I should be much obliged if any botanist would send me thoroughly ripe seeds of *R. pratensis* from England, in order that I may cultivate that species along with the supposed hybrid.

Quercus pedunculata, Ehrh., var. *angustifolia*. "Distributed in order to correct a former misnomer. As mentioned on the labels, specimens of *Q. Cerris*, the Turkey Oak, were inadvertently connected with the labels intended for this variety under date of 1867."—H. C. WATSON.

Iris Pseudacorus, L., var. *genuina*. *I. Pseudacorus*, Bor., occurs at Otterston Loch, Fife. I have sent out a few specimens, but from the difficulty of drying flowers of *Iris*, they will prove of little use for comparison with the var. *acoriiformis*, so common in the neighbourhood of London.

Allium carinatum, Fries, non Sm. An *Allium* growing by the side of the Tay below Perth, pointed out to me by Mr. John Sim, is this species; but as the Tay-side is a perfect nursery of aliens, its occurrence there is not sufficient to entitle it to a place in the British flora,—though, from its numerous head-bulbs, it will probably prove a permanent inhabitant, and, if so, in after years it may be allowed to enter the list as a naturalized species. On the Newark locality, see Report for 1867. The exerted stamens and dark reddish-purple flower at once distinguish the true *A. carinatum* from the flat-leaved varieties of *A. oleraceum*.

A. paradoxum, Don. Mr. A. Craig Christie sends a specimen of this from Benny Craig Woods, near Edinburgh. The plant readily establishes itself by its head-bulbs, and, after undergoing a sufficient term of probation, it will probably be recognized as a naturalized plant, like *A. carinatum*.

Hyacinthus non-scriptus, L. (*Endymion*, Bab. Man.). "Garden examples, to show the variation of elongate and leaf-like bracts. The original bulb from which these garden plants have been derived, was found in Claygate, Surrey, in the year 1838; and the variation has proved constant in the garden, the leafy bracts varying from 1 to 3 inches in length, according to soil and season."—H. C. WATSON.

Elodea canadensis, Rich. (*Anacharis*, Bab.). "Examples with the leaves so close and imbricate as to make the plant look like a *Lycopodium* at first glance. They were brought from Flect Pond, Hants, in September, 1869. Apparently, the lowering of the water-level, so as to leave the plants exposed to air, more or less outside the surface of

the water, had been the chief cause of their compact growth. In this state they were remarkably brittle, and broke much both during and after the drying process."—H. C. WATSON.

Potamogeton decipiens, Nolte. Mr. Charles Bailey sends a specimen of this plant from the canal at Navan, collected in 1868. Unfortunately, he was not aware at the time he gathered it that it was a plant new to the Irish Flora, and so brought away only two specimens.

Potamogeton Lonchites, Tuckerm.? Mr. Charles Bailey also sends a few specimens of this plant from the river Boyne, near Navan; some of them are in fruit, and the nuts accord well with the description of those of the American plant, being larger, deeper, and more distinctly keeled than in *P. heterophyllus*, and the peduncles are much longer than those of the last-named species; but the submerged leaves of Mr. Bailey's specimens are much more like those of *P. heterophyllus* than those of Dr. D. Moore's specimens collected in the same river. The floating leaves of both plants bear a striking resemblance to those of *P. polygonifolius*, but the nuts are totally dissimilar, and the branched stems of the plant I suppose to be *P. Lonchites* form a sufficient means of distinguishing it when barren, and the peduncles thickened upwards when in flower.

Potamogeton heterophyllus, Schrad. "This was not believed to be a native of Cheshire until I found it at Achmere; and it is apparently a rare plant in the county."—J. F. ROBINSON.

Juncus glaucus, Sibth., var. *pseudo-diffusus*. I have sent out, under this name, specimens of a plant abundant on the shores of the Firth of Forth, between Aberdour and Burntisland. It is a sterile or substerile form of *J. glaucus*, of which it has the striated glaucous stems and interrupted pith, but the flowers are much greener, the capsules smaller, and the seeds almost always abortive. It is probably to this form that all the Scotch specimens supposed to be *Juncus diffusus* belong.

Juncus nigritellus, Don. On the shore of Loch Leven a depauperate form of *J. lamprocarpus*, Ehrh., occurs, confined to the sandy portions of the shore which are covered with water as late even as the end of May. Amongst these, the smaller specimens have the leaves terete, but in the larger they are compressed. Last autumn I brought a number of roots of the small specimens with terete leaves, and placed them in a flower-pot. At the present date (June) the plants are 3 to 4 inches high, but all of them have compressed leaves. The perianth-

leaves in this plant, as I have mentioned in 'English Botany,' vary much in the shape of their apices, the three inner leaves being sometimes obtuse and sometimes acute. The acute form is, no doubt, that which commonly occurs in the small states; but it is by no means confined to such, and certainly does not always coexist with terete leaves.

Juncus bufonius, var. *fasciculatus*. I have sent out specimens of this plant from the shores of Loch Leven; it is the form *J. bufonius* assumes when growing in sandy places which are inundated in winter, but become perfectly dry in summer.

Cladium Mariscus. "Aehmere, near Frodsham. Although this has been observed in Mid-Cheshire, it has never, so far as I am able to ascertain, been recorded from West Cheshire."—J. F. ROBINSON.

Carex paniculata, var. *pseudo-Bönninghauseniana*. Miss E. Jones sends from Denbighshire a *Carex* which, at first sight, has precisely the appearance of *C. Bönninghauseniana*, except that the bracts are much shorter; the fruit is precisely the same as that of normal *C. paniculata*. From my recollection of Mr. H. C. Watson's depauperate *C. Bönninghauseniana*, I think Miss Jones's specimens simulate *C. Bönninghauseniana* even more closely than Mr. Watson's.

Aira uliginosa, Weihe. "Abundant about Fleet Pond, in North Hants, September, 1869. New to England. Full explanations about the plant and locality have been given in the 'Journal of Botany' for October, 1869. (N.B. The name was inadvertently written '*flexuosa*, Weihe,' in the head-title of the article referred to.)"—H. C. WATSON. Mr. A. G. More also sends specimens from Galway, so that all the members of the club have been supplied. No doubt, when the plant is better known, it will be discovered in other localities. At present, Fleetpond, Hants, Mr. H. C. Watson; Cawston Decoy, Norfolk, Mr. Bryant, 1776 (*teste* Trimen in Journ. of Bot. 1869, p. 352); Forfarshire, G. Don and J. M'Kay; Loch of Drum, Aberdeen, Herb. Mus. Brit. (*teste* Trimen, *loc. cit.*); and near Roundstone, Connemara, A. G. More,—are the only stations in which the plant is known to have been gathered. Hudson, from his description of *Aira setacea*, and from saying that the plant is common on *sandy* heaths in Yorkshire and Lancashire, evidently confounded *A. uliginosa*, Weihe, with *A. flexuosa*, Auct., though his description of *A. setacea* is, no doubt, partly taken from *A. uliginosa*, Weihe.*

* Dr. Boswell Syme here refers to the second edition of Hudson's 'Flora

Asplenium Trichomanes, L., var. *anceps*. "Garden examples, the roots originally from South-West Surrey, in lanes about Churt and Bowler Green. This is scarcely other than an enlarged form of *Trichomanes*, although it seems inseparable from the *Asplenium anceps* of Madeira and other Atlantic islands. The great brittleness of the stipes prevented the attachment of the labels to the specimens."—H. C. WATSON.

Chara alopecurioides, Del. "This plant is not to be found in the 'Salt pans,' properly so called, at Newtown, Isle of Wight. It grows only in the large reservoir into which the sea flows, and from which the water is admitted or pumped into the 'pans.' The 'pans' are completely dried up during the early spring and in the late autumn, and from their nature I do not think it possible that the *Chara* could grow in them."—FRED. STRATTON.

Anglica.' The original description of *A. setacea* in the first edition was made from specimens of the grass since called *A. uliginosa*, collected at Stratton Heath, Norfolk, the only locality there given for the plant. In the second edition Hudson reduced his species to a variety of *A. montana* (now considered a state of *A. flexuosa*), and the localities Yorkshire and Lancashire are probably intended to apply to the whole species, as Hudson then understood it. The description appended, however, is a very good one of the plant under discussion, which indeed is likely enough to be found in both the counties given by Hudson. Hudson's later views cannot affect the undoubted claim of the name *A. setacea*, Huds. ed. 1, to priority over *A. uliginosa*, Wcihc.—H. TRIMEN.

J. BOSWELL SYME.

June 10th, 1870.

LIST OF DESIDERATA FOR 1870.

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

- | | |
|-----------------------|--------------------------|
| Thalictrum montanum. | Koniga maritima. |
| flexuosum. | Cardamine impatiens. |
| saxatile. | Arabis petræa. |
| Kochii. | stricta. |
| Ancmone apennina. | ciliata. |
| ranunculoides. | hispida. |
| Adonis autumnalis. | glabrata. |
| Ranunculus confusus. | turrata. |
| pseudo-fluitans. | Barbarca arcuata. |
| tripartitus. | stricta. |
| ophioglossifolius. | Sisymbrium polyceratium. |
| Caltha Gucrangerii. | Matthiola incana. |
| radicans. | sinuata. |
| Delphinium Consolida. | Brassica oleracea. |
| Ajacis. | Napus. |
| Actæa spicata. | Sinapis incana. |
| Nuphar pumilum. | Cheiranthus. |
| Papaver hortense. | Raphanus maritimus. |
| officinale. | Helianthemum vineale. |
| Glaucium violaceum. | Breweri. |
| Corydalis solida. | Viola calcarea. |
| Fumaria pallidiflora. | permixta. |
| confusa. | scpicola. |
| parviflora. | stagnina. |
| muralis. | Curtisii, vars. |
| Vaillantii. | Paillouxii. |
| Crambe maritima. | Drosera obovata. |
| Isatis tinctoria. | Polygala grandiflora. |
| Thlaspi perfoliatum. | oxyptera. |
| sylvestre. | ciliata. |
| Cochlearia alpina. | calcarca. |
| anglica. | uliginosa. |
| Iberis amara. | Elatine Hydropiper. |
| Draba aizoides. | Dianthus prolifer. |
| rupestris. | plumarius. |
| brachycarpa. | Caryophyllus. |
| inflata. | cæsius. |
| Camelina sativa. | glaucus. |
| fetida. | Saponaria hybrida. |

- Saponaria Otites.
 Silene quinquevulnera.
 Lychnis Viscaria.
 Sagina debilis.
 alpina.
 saxatilis.
 nivalis.
 Spergularia rupestris.
 Arenaria ciliata.
 norvegica.
 laxa.
 viscosa.
 Gerardi.
 rubella.
 uliginosa.
 Holosteum umbellatum.
 Stellaria Boreana.
 umbrosa.
 cerastoides.
 Cerastium holostcoides.
 pentandrum.
 pumilum.
 alpinum.
 latifolium.
 nigrescens.
 Cherleria sedoides.
 Althæa hirsuta.
 Lavatera arborca.
 Tilia corallina.
 Hypericum dubium.
 bæticum.
 linariifolium.
 calycinum.
 Geranium purpureum.
 modestum.
 Impatiens fulva.
 Oxalis corniculata.
 Sarothamnus prostratus.
 Ulex strictus.
 Genista humifusa.
 pilosa.
 Ononis reclinata.
 Anthyllus Dilleuii.
 Medicago falcata.
 sylvestris.
 apiculata.
 minima.
 Melilotus vulgaris.
 Trifolium ochroleucum.
 Molinerii.
 maritimum.
 Bocconi.
 strictum.
 suffocatum.
 Lotus diffusus.
- Astragalus alpinus.
 Oxytropis uralensis.
 campestris.
 Arthrolobium ebracteatum.
 Vicia Orobus.
 Bobartii.
 bithynica, α and β .
 gracilis.
 Lathyrus hirsutus.
 palustris.
 tuberosus.
 maritimus.
 acutifolius.
 Orobus tenuifolius.
 niger.
 Prunus insititia.
 domestica.
 Dryas octopetala.
 Sibbaldia procumbens.
 Potentilla rupestris.
 norvegica.
 alpestris.
 mixta.
 Fragaria elatior.
 Rubus Lcesii.
 any of the fruticosi named.
 Rosa rubella.
 hibernica and vars.
 Jundzilliana.
 cryptopoda.
 Borreri.
 sepium.
 caninæ Bakerianæ.
 systyla.
 bibracteata.
 Mespilus germanica.
 Pyrus communis, α and β .
 rupicola.
 scandica.
 fennica.
 pinnatifida.
 Epilobium brachycarpum.
 rosmarinifolium.
 alpinum.
 anagallidifolium.
 alsinifolium.
 Isnardia palustris.
 Myriophyllum verticillatum, α and β .
 Callitriche obtusangula.
 truncata.
 Ceratophyllum, any in fruit.
 Lythrum hyssopifolium.
 Tamarix anglica.
 Herniaria glabra.
 Scleranthus perennis.

- Ribes sylvestre*.
 petraeum.
 spicatum.
 alpinum.
Sedum Rhodiola.
 Fabaria.
 dasyphyllum.
 teretifolium.
 micranthum.
 sexangulare.
 albescens.
 elegans, α and β .
 Forsterianum, α and β .
Sempervivum tectorum.
Cotyledon foliosa.
Saxifraga Geum, vars.
 hirsuta.
 umbrosa, vars. *b*, *c*, and *d*.
 nivalis.
 Hirculus.
 oppositifolia.
 cernua.
 rivularis.
 decipiens.
 palmata.
 hirta.
 affinis.
 incurvifolia.
 caespitosa.
Cornus suecica.
Astrantia major.
Eryngium campestre.
Physospermum cornubiense, fruit.
Petroselinum sativum.
Trinia vulgaris.
Helosciadium repens.
Carum Carui.
 Bulbocastanum.
Bupleurum falcatum.
Œnanthe pimpinelloides.
 silaifolia.
 fluviatilis.
Seseli Libanotis.
Ligusticum scoticum.
Peucedanum officinale.
 palustre.
 Ostruthium.
Tordylium maximum.
Daucus maritimus.
Caucalis daucoides.
 latifolia.
Coriandrum sativum.
Lonicera Caprifolium.
 Xylosteum.
Galium aristatum.
- Galium cinereum*.
 scabrum.
 insubricum.
 Bakeri.
 nitidulum.
 anglicum.
 Vaillantii.
Valeriana pyrenaica.
Fedia carinata.
 mixta.
Tragopogon grandiflorus.
 parviflorus.
Picris arvalis.
Hypochaeris Balbisii.
 maculata.
Lactuca Scariola.
 saligna.
Sonchus palustris.
Mulgedium alpinum.
Crepis succisæfolia.
Hieracium collinum.
 Species *Backhousianæ*; any except
 Pilosella.
 aurantiacum.
 murorum.
 vulgatum.
 tridentatum.
 umbellatum.
 boreale.
Borkhausia foetida.
 taraxacifolia.
Arctium intermedium.
 nemorosum.
Saussurea alpina.
Serratula monticola.
Carduus crispus, *b* and *c*.
 scotus.
 tuberosus.
 hybridi, all.
Centaurea decipiens.
 aspera.
 solstitialis.
Bidens radiata.
Artemisia campestris.
Gnaphalium hyperboreum.
 margaritaceum.
 lutco-album.
 norvegicum.
Filago apiculata.
Erigeron alpinus.
Senecio paludosus.
Cineraria; any.
Doronium plantagineum.
Inula Helenium.
 salicina.

- Anthemis anglica.
 Campanula patula.
 persicifolia.
 Phyteuma orbiculare.
 spicatum.
 Lobelia urens.
 Erica Watsoni (sponte).
 ciliaris.
 hibernica.
 Menziesia cærulea.
 Arbutus alpina.
 Unedo (sponte).
 Vaccinium uliginosum.
 Pyrola media.
 secunda.
 uniflora.
 Monotropa hirsuta.
 Fraxinus heterophylla.
 Gentiana verna.
 nivalis.
 germanica.
 Cicendia Candollei.
 Erythraea latifolia.
 Villarsia nymphæoides.
 Cuscuta europæa.
 Epilinum.
 Solanum miniatum.
 marinum.
 Verbascum pulverulentum.
 Blattaria.
 hybrida, all.
 Veronica spicata vera.
 triphyllis.
 verna.
 humifusa.
 alpina.
 saxatilis.
 hirsuta.
 grandiflora.
 Bartsia alpina.
 Rhinanthus major.
 Melampyrum cristatum.
 arvense.
 montanum.
 Scrophularia Scorodonia.
 Linaria speciosa.
 Pelisseriana.
 Rapum.
 Orobanche caryophyllacea.
 elatior.
 amethystea.
 Picridis.
 Hederæ.
 rubra.
 cærulea.
- Orobanche arenaria.
 ramosa.
 Salvia clandestina.
 pratensis.
 Mentha alopecuroides.
 silvestris and vars.
 vulgaris.
 pubescens, α and β .
 citrata (sponte).
 paludosa.
 rubra.
 gracilis.
 Cardiaca.
 pratensis.
 agrestis and vars.
 agrestis.
 præcox.
 parietariifolia.
 Calamintia Briggsii.
 Melissa officinalis.
 Melittis Melissophyllum.
 Teucrium Scordium.
 Botrys.
 Ajuga pseudo-alpina.
 pyramidalis.
 Leonurus Cardiaca.
 Lamium intermedium.
 Galeopsis intermedia.
 ochroleuca.
 Stachys germanica.
 Nepeta parviflora.
 Myosotis strigulosa.
 alpestris.
 sylvatica.
 Lithospermum purpureo-cæruleum.
 Mertensia maritima.
 Symphytum tuberosum.
 Borago officinalis.
 Anchusa officinalis.
 Asperugo procumbens.
 Echium violaceum.
 Pinguicula grandiflora.
 alpina.
 Utricularia neglecta.
 intermedia.
 Primula elatior.
 scotica.
 Cyclamen hederæfolium.
 Lysimachia thyrsiflora.
 Armeria planifolia.
 plantaginca.
 Statice Balusienis.
 Dodartii.
 Caspia.
 Plantago Timbali.

- Amaranthus Blitum.
 Chenopodium urbieum.
 pseudo-botryoides.
 botryoides.
 fieifolium.
 Obione peduneulata.
 Atriplex arenaria.
 prostrata.
 erecta.
 marina.
 Salicornia proeumbens.
 Polygonum aviculare, vars.
 maritinum.
 pseudo-dumetorum.
 Rumex pratensis.
 alpinus.
 maritimus
 palustris.
 Daphne Mezereum.
 Asarum curopæum.
 Aristolochia Clematidis.
 Euphorbia Peplis.
 hiberna.
 pilosa.
 coralloides.
 Cyparissias.
 pseudo-cyparissias.
 Lathyris.
 Buxus sempervirens.
 Mercurialis ovata.
 Urtica pilulifera.
 Dodartii.
 Quercus intermedia.
 Betula pendula.
 pubescens.
 nana.
 Populus alba.
 canescens.
 nigra.
 Salix euspidata.
 undulata.
 aetifolia.
 Helix.
 rubra.
 Forbyana.
 intricata.
 stipularis.
 Smithiana.
 rugosa.
 ferruginea.
 aeuminata.
 sphacelata.
 nigricans, vars.
 laurina (sponte).
 phylicifolia, vars.
- Salix ambigua.
 repens, vars.
 angustifolia.
 Doniana.
 Arbuscula.
 Lapponum.
 lanata.
 proeumbens.
 Myrsinites.
 reticulata.
 Grahami.
 Pinus sylvestris.
 Taxus fastigiata.
 Spiranthes æstivalis.
 cernua.
 Epipactis media.
 purpurata.
 Cephalanthera grandiflora.
 rubra.
 Epipogium aphyllum.
 Corallorrhiza innata.
 Orehis laxiflora.
 fusca.
 militaris.
 Simia.
 hircina.
 incarnata.
 Habenaria albidia.
 Neotinea intacta.
 Ophrys arachnites.
 aranifera.
 fucifera.
 Malaxis paludosa.
 Liparis Loeslii.
 Cypripedium Calceolus.
 Gladiolus illyricus.
 Croeus vernus.
 nudiflorus.
 Sisyrinchium anceps.
 Trichonema Columnæ.
 Narcissus poeticus.
 Leucojum vernum.
 æstivum.
 Lilium Martagon.
 Tulipa sylvestris.
 Allium Ampeloprasum.
 Babingtonii.
 Scorodoprasum.
 earinatum.
 Schœnoprasum.
 sibiricum.
 triquetrum.
 Gagea lutea.
 Onithogalum nutans.
 Muscari racemosum.

Lloydia serotina.
 Simethis bicolor.
 Asparagus officinalis.
 Maianthemum bifolium.
 Polygonatum verticillatum.
 officinale.
 intermedium.
 Stratiotes aloides.
 Alisma lanceolatum.
 repens.
 natans.
 Actinocarpus Damasonium.
 Potamogeton flabellatus.
 pectinatus.
 filiformis.
 trichoides.
 compressus.
 acutifolius.
 zosteræfolius.
 acuminatus.
 decipiens.
 prælongus.
 sahicifolius.
 heterophyllus.
 nitens.
 lanceolatus.
 Lonchitis.
 prolixus.
 fluitans ?
 plantaginicus.
 Ruppia maritima, *a.*
 Zostera angustifolia.
 nana.
 Naias flexilis.
 Arum italicum.
 Sparganium natans.
 Juncus balticus.
 acutus.
 nigritellus.
 compressus, *a.*
 castaneus.
 trifidus.
 capitatus.
 biglumis.
 Luzula Borreri.
 arcuata.
 Cyperus fuscus.
 Rhynchospora fusca.
 Scirpus carinatus.
 triqueter.
 pungens.
 uniglumis.
 parvulus.
 Eriophorum alpinum.
 latifolium.

Eriophorum gracile.
 Kobresia caricina.
 Carex rupestris.
 incurva.
 lagopina.
 alpicola.
 elongata.
 axillaris.
 Bœnninghausniana.
 divisa.
 divulsa.
 Ehrhartiana.
 paradoxa.
 Vahlîi.
 canescens.
 atrata.
 rigida.
 Watsoni.
 stricta.
 acuta.
 saxatilis.
 Grahami.
 ustulata.
 lepidocarpa.
 speirostachya.
 punctata.
 vaginata.
 depauperata.
 capillaris.
 limosa.
 irrigua.
 rariflora.
 ericetorum.
 montana.
 tomentosa.
 clandestina.
 filiformis.
 Kochiana.
 involuta.
 Leersia oryzoides.
 Spartina stricta.
 alterniflora.
 Cynodon Dactylon.
 Digitaria humifusia.
 Panicum Crus-galli.
 Setaria verticillata.
 Hierochloe borealis.
 Phleum nodosum.
 asperum.
 Bœhmcri.
 Alopecurus alpinus.
 pronus.
 bulbosus.
 Polypogon littoralis.
 monspehiensis.

- Apera interrupta*.
Agrostis stolonifera.
Arundo stricta.
 lapponica.
Aira alpina.
 uliginosa.
 canescens.
Avena strigosa.
 alpina.
Glyceria plicata.
 pedicellata.
Sclerochloa Borreri.
Poa bulbosa.
 alpina.
 laxa.
 minor.
 Parnellii.
 cæsia.
 glauca.
 Balfourii.
Festuca ambigua.
 Pseudo-myurus.
 sylvatica.
 arundinacea.
 loliacea.
Bromus racemosus.
Triticum biflorum.
 littorale.
 acutum.
 pungens.
Lolium temulentum.
 arvense.
Gymnogramma leptophylla.
Woodsia ilvensis.
 hyperborea.
Polypodium cambricum.
- Polypodium dentatum*.
Cystopteris Dickicana.
 alpina.
 montana.
Polystichum lonchitidioides.
Lastrea Filix-mas, vars.
 cristata.
 uliginosa.
 glandulosa.
 collina.
 nana.
 remota.
Athyrium molle.
 latifolium.
Pseudathyrium alpestre.
 flexile.
Asplenium anceps.
 mariuum.
 lanceolatum.
 acutum.
 germanicum.
 septentrionale.
Trichomanes radicans.
Botrychium matricarifolium.
Ophioglossum lusitanicum.
 ambiguum.
Isoetes echinospora.
 Hystrix.
Equisetum umbrosum.
 trachyodon.
 hyemale.
 Moorci.
 variegatum.
 Wilsoni.
 arcnarium.
Chara ; any.

Specimens of any novelties or excluded species will also be acceptable.