NOTES

ON

THE FLORA OF STIRLINGSHIRE.

In a paper read before the Stirling Natural History and Archæological Society, and published in the transactions of the Society for session 1890-91, we gave a short account of the lines we proposed to adopt in working up the County Flora. We then stated, that for the purpose of showing the distribution of the species and also with the object of associating the plants with their geological conditions, we divided the county into four districts, corresponding to the four geological areas into which Stirlingshire naturally falls. These are:—

District I.—This contains the Carboniferous and their associated trap rocks. It is the largest of our divisions, and contains all the central and southern portions of the county. In this area is embraced most of the land known by the agriculturists as dryfield, so named in contradistinction to the heavy, wet carse clays.

District 11.—This is composed of the Carse land which borders the River Forth, extending from the mouth of the River Avon in the east, to Flanders Moss in the west. In this district are included several peat mosses.

District III.—Here are comprised all the Old Red Sandstone rocks which run across the county in a broad band from north-east to south-west, its north-eastern point being situated at Kippen, and its south-western near Killearn. Its western boundary is formed by the line of fault which crosses the county in a north-easterly direction, meeting Loch Lomond at the Island of Inchcailloch.

District IV.—In this is contained the remainder of the county which extends to near the tops of Lochs Lomond and Katrine, and is almost entirely composed of Highland metamorphic rocks.

In the previous paper we gave a list of the plants we had observed in Districts III, and IV., accompanied by a short geological sketch of the two areas then specially dealt with. During the past year, in addition to several excursions made to Districts I.

and II., we took a short botanical excursion to Districts III. and IV.. and as we were successful in increasing our lists from these areas, in the present paper we give four columns in our list of Stirlingshire plants-one for each district-and in them is shown the complete distribution of the county plants, as far as they are known to us. Although we have discovered a considerable number of species not hitherto known to occur in the county, there is still a number of species recorded by others which we have not yet found. Of some of these we have been informed of the localities where they were collected, and have no doubt, should we be able to continue our work, we will yet discover many of these and be enabled to add them to our lists in a future communication. Of the remainder of these records, a few we believe to be errors which have crept in, others are of plants, which, though once found in the county, appear now to be extinct, while some were casual introductions, which, unless constantly being reintroduced, soon disappear; but even making these deductions, there remain a number of recorded plants, which, though we have no knowledge of the localities in which they were found, yet, from the nature of the case, one would think must certainly occur, and next season we hope to give special attention to the finding of these species. In drawing up our lists, we have only included those species which we have personally collected, or for which we have had specimens submitted to us, with their localities fully authenticated by their collectors.

For Districts I. and II., however, with the exception of Helleborus feetidus and Valeriana pyrenaica, specimens of which have been shewn us by Mr J. Guthrie Smith, Mugdock Castle, and Valeriana dioica, collected by Mr A Somerville, Glasgow, and Cerastium arvense and Sisymbrium Sophia, which were brought to us by Mr Gilbert Macdougall, we are personally responsible for all the records. For the following records for District IV., we are indebted to Mr Watt, Clydebank:—Draba incana, Leontodon autumnalis var. pratensis and Tofieldia palustris. He has also given us a specimen of Eleocharia acicularia from District I.

A short geological sketch has already been given of District III. and IV., and we now append a few geological notes on Districts I. and II.

DISTRICT I. - GEOLOGICAL SKETCH.

Our District I. is almost entirely composed of

rocks belonging to the Carboniferous Formation, about half of which are Stratified rocks, the re-

maining half being of Igneous origin.

A—Sedimentary or Stratified rocks.—These embrace members of the Coal Measures, Millstone Grit, Carboniferous Limestone Series, and Calciferous Sandstone Series.

COAL MEASURES.

A small tract of Coal Measures extends westward from near Bonnybridge for rather more than three miles, but is scarcely a mile wide. It has been let down by faults, running east and west, and on the north abuts against the Carboniferous Limestone Series, and on the south on the the Millstone Grit. Its presence shews that at one time, the Coal Measures covered a much larger area than they do Two other small tracts of Coal at present. Measures occur. One around Stenhousemuir and the other at Airth, but in neither of these are the coals at present worked. The largest portion of Coal Measures extends in a south-westerly direction from Falkirk, and lies in the parishes of Falkirk, Polmont, Muiravonside, and Slamannan, where it passes into Lanarkshire, with which, geologically, it forms part of the same coal field. As one goes inland from the Carse, the ground gradually rises, and in the higher portions of the Falkirk Coal Field, assumes a somewhat bleak aspect, a good deal of the surface being occupied by Peat Moss, broken up in patches and scattered over the district. The highest ground lies in the parishes of Muiravonside and Slamannan, where it attains a height of nearly 700 feet.

MILLSTONE GRIT.

This series underlies the Coal Measures and crops out around the edges of the coal fields. On the west side of the Falkirk Coal Field it forms a band which runs from Carnock near Airth in an almost south direction, passing Larbert, Bonnybridge, and on to Fannyside Muir, where it is cut off by a fault. Its length is about 11 miles, but the width varies considerably, widening out southwards. Another band extends from Polmont southwards, which running parallel with the eastern boundary of the Falkirk Coal Field, passes into Linlithgowshire. Its width also varies, but at no point in Stirlingshire reaches 2 miles broad. Another small area of Millstone Grit enters the county at Kirkintilloch. series also becomes more elevated in the south of the county. Its surface is very uneven, and in the

higher portions reaches little under 700 feet. Peat Moss covers much of the surface—the largest being at Fannyside Muir.

CARBONIFEROUS LIMESTONE SERIES.

This forms a band, which starting at Stirling, passes southwards to Denny, then bending southwest skirts the southern side of the Campsie Hills and passes out of the county at Mugdock. Eastwards it is bounded by the Millstone Grit and the small Coal Field of Bankneuk, near Denny. These rocks contain many beds of limestone, coal, and ironstene, all of which are worked. The general nature of the ground is lower lying than that of the greater part of the county, though it is very uneven. Along the Kelvin, which forms part of the southern boundary of the county, there are some low lying haughs, which form a narrow strip, extending from Balmore te Kilsyth.

CALCIFEROUS SANDSTONE SERIES

At Murrayshall, near Stirling, along the banks of the Bannock, behind the Gillies Hill are two narrow strips belonging to this series. At the foot of the Gargunnock Hill they again come in and form a broad band which runs in a south-westerly direction, engirdling the central mass of volcanic rocks and then passing into Dambartonshire. An arm of this series bends round the west end of the Strathblane Hills, and extends up the valley to a point a short distance east of the village of Strathblane. A small isolated patch, referable to this series, lies at the base of the Kilsyth Hills. In some places this series attains the height of over 1000 feet. The surface is very irregular, and the general rise of the rocks is towards the south, where they pass under the central volcanie region, which embraces the Gargunnock, Leckie, Fintry, Strathblane, Campeie, and Kilsyth Hills. Much of the area is moorland.

B—Volcanic Rocks.—These are respesented by two series—Intrusive Dolerities and Interbedded Porphyrites.

INTRUSIVE DOLERITES.

A mass of Intrusive Dolerite, commencing at Stirling, extends almost due south for about 7 miles to Dunipace, then in a very much broken up manner (as far as visible, though probably connected below the surface) continues in a south-westerly direction, passing Kileyth, and extending to Mugdock. The nature of the rock varies greatly, even in parts close together, from a fine grained dolerite to a rock

having a coarse granitic structure, which latter is well seen in the Carron, above Denny. In its colour the change is equally noticeable. The finer grained varieties are usually greyish or only slightly pink, the coarser being generally of a much more decided pink tone, but the pink and the grey varieties can often be observed in a spotted manner, when fresh sections of the rock in certain localities are examined.

INTERBEDDED PORPHYRITES.

The central portion of hilly ground already referred to under the names of Gargunnock, Leckie, Fintry, Strathblane, Campeie, and Kileyth Hills, names which are derived from towns or villages lying at their foot, consists of a number of contemporaneous volcanic flows, forming at many points magnificent escargments, both on their northern and southern faces. Many points in these hills attain a height of between 1500-1900 feet, the highest of which are—Carleatheran, 1591 feet, one of the Gargunnock Hills; Dumbreck, 1664 feet, in the Strathblane Hills; Meikle Bin, 1870 feet, and the Earl's Seat, 1894 feet, in the Campaie Hills, the latter being the highest point in this part of the county. Craigforth, near Stirling, though surrounded on all sides by the Carse, forms a part of our District I, and belongs to the same volcanic series as the Gargunnock Hills. The Porphyrite is sometimes fine grained with the porphyritic crystals comparatively small, but generally the porphyritic crystals are large and well developed, but notwithstanding the great development of porphyrite in the county, fresh specimens of the rock are not easily procurable, the dolerites being almost exclusively used for road metal and any other economic purpose to which the volcanic rocks are applied, thus few openings are made in the porphyrites. In these contemporaneous porphyrites occur small intrusive patches of Andesite, a very hard and fresh volcanic rock. Felsite also occurs, but to no great extent. Basalts are also somewhat rare, but a fine boss is seen about one mile south of Strathblane, exhibiting most beautiful columnar structure; and some good columns of basalt are likewise seen in a field near the south lodge to Craigmaddie House. Columnar structure is not, however, confined to basalt, being exhibited in a greater or less degree of perfection in all the volcanic rocks to which reference has been already made. The whole of this volcanic area, with little exception, forms high ground, occupied by moorland and peat moss. Economically, it is of little value, except as sheep farms. The north and south escarpments are very steep, in several cases about 100 feet high, and the whole of the ground is very hilly and uneven. In addition to the two series of volcanic rocks already mentioned are several fine grained Dolerite dykes, which run across the county from east to west, and in their course cut through the older volcanic rocks. These are most probably of miocene age.

POST TERTIARY OR PLEISTOCENE DEPOSITS.

The most important of these is the boulder clay, which is found all over the district. In composition it varies considerably, having often interbedded deposits of sand and gravel. Its thickness varies greatly at different points. Another prominent feature of post tertiary times is the 100 feet raised beach which bounds the Carse and rising up suddenly at some parts with an extraordinary degree of preservation, looks much more like the work of man than the remains of an ancient sea beach. It passes from Stirling by Bannockburn Railway Station and Larbert to Falkirk, and good views of it are obtained from the railway between these places. It consists almost entirely of irregularly bedded sand and gravel. Numerous moors and peat mosses are found scattered over the whole of the area under consideration, and to which reference has been already made.

RIVERS.

Our District I. contains no rivers of great size or extent. The Endrick rises in the Fintry and Gargunnock Hills, and flows westwards into Loch Lomond. The Carron and its feeder, the Earl's Burn, rise within a very short distance of the Endrick, the former entering the Forth at Grangemouth. The Bannock rises in the Earl's Moor, and flows north-west, joining the Forth about 1½ miles below Stirling. All these streams originate from nearly the same point in the porphyrite series, and in wet weather the feeders of the Endrick and Carron almost meet.

Lochs.—All the lochs in District I. are of small size, the largest being Loch Coulter, in the Earl's Moor; Loch Elrig and Loch Fannyside, near Slamannan; Banton Reservoir near Kilsyth; Loch Laggan near Kippen, and between Strathblane and Milngavie are a number of small lochs of which it is sufficient to mention Craigallion Loch, Loch Ardinning, Mug-

dock Loch, Bardowie Loch, and Mugdock Reservoir, the last, though mostly, if not entirely, artificial, has yielded some interesting plants, and the same may be mentioned of Walton Reservoir near Fintry.

Scenery.—Although this scarcely falls within the scope of the paper, scenery and botany are so closely united, we may be allowed to make a few remarks upon this subject. From the geological structure of the ground, one would naturally expect to find associated with it, scenery of great beauty, and the expectation is fully realised. The rivers though small, have some of the finest scenery of the kind in Scotland. The Carron for a few miles of its course above Denny, has cut a deep gorge through the dolerites, through which the stream flows in its descent with great force, being broken into many small, but pretty falls, by bars and blocks projecting from its rocky bed. The banks are covered with trees and clothed in a rich growth of vegetation. The place has been long known for its natural beauty and at Auchinlillylin a former proprietor built a cottage from which he might enjoy the view. but it has not been occupied for about 50 years and nothing but a small portion of the walls now re-This spot is frequently, though erroneously called, the "Hermitage." About a mile above moorland stream, with a quietness which always reigns in such situations, and the contrasted conditions, brought so close together, of rocky gorge and open moorland, is very striking. The Endrick is much more placed in its course than the Carron, but at the Loup of Fintry it is precipated over an escarpment of the perphyrite 90 feet high. The valley of the Endrick, both above and below Fintry is well wooded and possesses a quiet beauty which seems to instil a spirit of rest. In Cumbernauld Glen, at the east end of the Railway Tunnel, is another fall, caused by one of the Miocène Dykes running across the course of the stream. The Spout of Ballagan and Campsie Glen are too well known to demand any comment. Along the northern escarpment of the perphyrite, numerous waterfalls are found, which in conjunction with the bold and massive mural faces of the rock over which they tumble, form a class of scenery quite peculiar to such situations, where the absence of trees only heightens the wildness of the scene. No better examples of such scenery in this district could be mentioned than the rocks and falls at the head of Leckie Glen and the Corrie of Balgiass near Fintry. But not only is the

near view beautiful, but the distant landscape seen from the northern escarpment of these rocks, is perhaps unsurpassed in Scotland. To the northward is seen the whole range of the Grampians, with the Valleys of the Forth and Teith in the foreground. studded with loch and wood. The prospect is one which we do not attempt to describe—it must be seen. A somewhat similar view though not so fine. but more accessible, may be got from the road running between Fintry and Kippen, about 2 miles south west of the latter village. To come nearer home, the fine scenery around Stirling and the historical view from its ancient Castle are too well known to you all to be even referred to. If the study of botany brought no further profit than that of seeing the fine scenery with which it brings one in contact, this of itself would be a reward for the

many long walks it entails.

But to return to the more immediate object of this paper, we may here mention some of the more interesting species which occur in District I, Ranunculus Linguawas seen in plenty near Strathblane, Nuphar pumilum still occurs in Mugdock, Bardowie and Craigallion Lochs and Elatine hexandra occurs in the same district. A single plant of Silene noctifiora has been collected at Stirling. Stellaria palustris is found at Bardowie. Sagina subulata though at present unrecorded from the eastern part of District 1, has been found in the Mugdock district and also on the road, near the Loup of Fintry. Malva rotundifolia has as yet been seen at only one station in this area. Anthyllis Vulneraria is tolerably plentiful on the shingly banks of the Endrick, near Fintry. Astragalus glycyphyllos and Ornithopus perpusillus are found in the King's Park, Stirling, the former among the rocks where it seems to be increasing. Some trees of Prunus domesticus grow on the roadside past Polmaise Castle. The Brambles have not yet received much attention, so the list given of them is necessarily very imperfect and the same remark applies to the Roses though not to the same extent. Perhaps the rarest rose in the district is Rosa spinosissima. Potentilla reptans occurs below the Castle Rock. A few trees of Pyrus Aria growin a field beside Cumbernauld Glen, but are very doubtfully native. Callitriche autumnalisis frequent in the Union Canal and several of the small locks. Peucedanum Ostruthium has several stations in the district. Galium sylvestre is rare and generally grows on the grassy slopes or ledges of the trap escarpments. Eupatorium cannabinum

was found a year or two ago near Murrayshall, but has not been observed lately. Chrysantbemum segetum, though generally distributed, never occurs in much plenty, usually being found where any openings have been made in the "100 feet beach" or where a light sandy soil occurs. Several species of Hieracia have been found, the less common species frequenting the ledges of the trap rocks, as Hieracium anglicum, H. gothicum and H. crocatum while H. umbellatum, H. boreale, and H. auratum, appear to like stream sides at lower situations. Lactuca virosa still holds its own at the base of the Castle Rock. I simachia thyrsiflora is frequent along the Forth and Clyde and Union Canals. Atropa Belladona and Hyoscyamus niger also grow on the Castle banks, and Antirrhinum majus grows on the Castle Rock and also on the walls at Mugdock Castle. Veronica montana is rare, but has been found in Leckie Glen and Cumbernauld Glen. Scrophularia vernalis is established at Leckie but is an evident introduction. Utricularia minor occurs but has only been observed at a few localities, though plentiful in Craigmaddie Loch. Rumex domesticus is rare having only been met with above Denny. Although a large number of Willows were collected last year, still many districts have not been collected from at all, hence our records of these plants must be incomplete. Typha latifolia, Sparganium affine and Sparganium minimum are rare in the district. Lemna trisulca is also uncommon. The Potamogetons are tolerably well represented, and contain some good species, as P. rufescens, P. heterophyllus, P. nitens, and P. pectinatus. The last three, however, have each only been met with in one locality as yet. Sturrockii is also very rare, but perhaps the best plant we met with last season was P. undulatus, the type of which had not been previously met with in Britain, and for whose identification we are indebted to Mr Alfred Fryer. Of Carices, the following are some of the rarer species in the district:—Carex paniculata, plentiful near Mugdock; Carex acuta, C. aquatitis var. Watsoni, C. sylvatica, C. lævigata and C. paludosa. Of the grasses, Milium effusum, Avena pubescens, and Briza media, may be noted as the less common of our recorded species. rarest ferns are Ophioglosaum vulgatum and the Parsley Fern. Owing to the ravages of fern collectors this last-named will probably soon be extinct. We sincerely trust, however, that the members of this acciety will do all they can to prevent the extermination of our rarer local plants, for the study

of botany should embrace their protection, not bring about their extermination. Isoetes lacustris has only been seen at one locality in this district.

Among the plants included in our list for District I. are a number of evident introductions, and of somewhat sporadic occurrence. Of this class may be mentioned Lychnis Githago, Medicago denticulata, Anthriscus Cerefolium, Centaurea cyanus, Borago officinalis, Papaver somniferum, Solanum nigrum, Plantago media; such plants one occasionally meets with but cannot count on again finding them in the same station in subsequent visits. Their presence depends in great measure on their introduction with farm seeds, and although they cannot be passed over, still they do not form any part of the indigenous flora, and are consequently of much less interest. All districts, however, contain a considerable number of such plants.

DISTRICT II .- GEOLOGICAL SKETCH.

This district is formed of the almost flat plateau of the "50 feet beach." It is bounded landwards by the bluff formed by the eroded face of the "100 feet beach," which is included in, and forms one of the boundaries of our District I. It commences in Stirlingshire at the mouth of the Avon and extends to Flanders Moss, which is about 31 miles southeast of Aberfoyle. During a distance of nearly 30 miles, from the mouth of the Avon to Flanders Moss, the rise of the ground is only about 40 feet, for Flanders Moss is about 50 feet above sea level, and the Carse bordering the mouth of the Avon about 12 feet above sea level. As we recede from the river Forth, the Caree slightly and gently rises inland, but only on an average to the extent of 15 or 20 feet. To prevent the flooding of the land, the lower reaches of the river are pretected by strong embankments, but during heavy floods, usually caused by a sudden melting of the snow on the hills from which the Forth and its tributaries take their rise, large tracts of the Carse are occasionally placed under water. Going back a number of years, the Carse was mostly covered with Peat Moss, but comparatively little of it now remains, as it has been cleared to reach the rich clay-soil which underlies the moss. Flanders Moss is the largest now remaining, but a few smaller Peat Mosses still exist, such as Garden and Arngomerie Moss. Cowie Moss and Dunmore Moss. The substratum underlying the Peat Moss consists of fine clay and mud, which when brought under cultivation, produces some of the richestand most valuable agricultural land in Scotland. The greatest width of the Carse is between 4 and 41 miles in the neighbourhood of Falkirk, but as traced up the river it decreases and the width varies considerably, in some places being a mere strip bordering the river. A small and narrow arm of the Carse runs up the Carron Water a short distance. but it is included in our district I., as it is small and too much altered in its condition to have any appreciable effect on the Flora. The Carse has no natural locks, but the woodponds at Grangemouth yield some interesting plants. Though district II. is small compared with the others, its physical conditions are very different. The flora of the peat mosses, is of course similar to that of like situations in districts I., III., and IV., but that of the Carse land proper has a character of its own, and although a number of species occur, which generally grow on a lighter soil, still they form, in the number of their representatives, a small part of the flora, though their names occurring in the list without this qualification, might give them a false value. The number of species recorded from district II, is not nearly so numerous as those from district I. Marine plants extend up the Forth as far as Old Polmaise, about 3 miles below Stirling, where Scirpus maritimus occurs. About a mile above Alloa Railway Bridge, Armeria maritima appears in great profusion—also Triglochin maritimum, and at the mouth of the Pow Burn, somewhat further down the river, Cochlearia officinalis and Sagina maritima appear. Among the other plants which may be specially mentioned from this district are-Ranunculus Sardons, from near Airth. Stellaria palustris has been found on marshy ground at the foot of the Gowan Hills, Stirling. It had been previously known to occur at two points on the banks of the Forth near Stirling, and though both these stations are in political Stirlingshire, they belong to the West Perth Watsonian Botanical County. Lepigonum salinum var. neglectum is got at Grangemouth and on the banks of the Forth near Airth. Spiræa salicifolia occurs as an introduction at Flanders Moss. Linaria viscida has suddenly appeared this year in plenty on the railway at Gargunnock Station. Rumex obtusifolius var. sylvestris was found on the bank of the Forth above Clay Dykes. Ceratophyllum demersum and Catabross aquatica grow in the woodponds, Grangemouth. In addition to the last mentioned, the following grasses may be noted from the neighbourhood of Grangemouth - Glyceria maritima, G. distans, Festuca procumbens and F. loliacea. Beside the Docks at Grangemouth is a piece of waste ground on which ships discharge their ballast when coming for cargo; the source of this ballast is not only British, but comes from many of the ports of Northern Europe. might be expected in such circumstances, a very curious mixture of plants is found on this small piece of ground, and in addition to a few foreign species. the following British plants have been observed: —Nasturtium sylvestre, Sisymbrium Sophia, Erysimum cheiranthoides, Lepidium ruderale, Ervsimum Silene gallica var. anglica, Stellaria aquatica, Linum usitatissimum, Medicago sativa, Trifolium maritimum, Carum Carui, Artemisia campestris, Crepis biennis, Mercurialis annua, Alopecurus agrestis, and Polypogon monspeliensis. None of these we believe to be native, and as soon as the supply of ballast ceases or the ground is built on. they will disappear and become "lost records." Perhaps the only pity is that they have been introduced at all, but their presence gives one the opportunity of seeing plants (which at present seem to have taken complete possession of the place) which otherwise would probably not be found in Scotland. and even where native, not all brought into such a limited area.

In conclusion we have to express our thanks for kind assistance received from many botanical friends who have examined our specimens of the more To Dr Buchanan White, for critical genera. examining the willows; to Mr Baker, Kew, for naming the roses collected last year; to Mr Fryer, for assistance in naming the Potamogetons; to the Messrs Groves, for confirming our identifications of the Characeæ; and to Mr C. Bailey, for examining the Water Ranunculi. The Hieracia have all been identified by Mr F. J. Hanbury, and the Brambles by the Rev. W. Moyle Rogers, but especially are we indebted to Mr A. Bennett, Croydon, for also assisting us with the Potamogetons and reviewing our identifications of the carices and grasses, and for much help given in many cases of doubt. We have neither spared trouble to our friends nor to ourselves to ensure accuracy in the appended lists, and though we are aware they are far from complete, we believe they will be found correct as far as they go.

The total number of species recorded for the county is 712, to which must be added 43 varieties,

making in all 755 species and varieties recorded in this paper from the Botanical County of Stirling. Their distribution is as follows:—

In District I.......602 species and 80 varieties.
In District II......380 species and 15 varieties.
In District III......348 species and 7 varieties.
In District IV......820 species and 8 varieties.

	In District IV.,820 species and 8 varie	etie	5,		
		D	istr	icts.	,
No.	NAME.	1	2	3	4
2	Thalictrum alpinum, L.	-	•	•	X
	Anemone nemorosa, L.	X	X	x	x
	Ranunculus peltatus, Schrank.	x	•	•	-
18b	" truncatus Heirn, var. flabellatus				
	Dumost.	x	-	X	-
18c	", ", var. floribundus, Bab.		X	-	-
18d	", " " var. penicillatus, Hiern	-	X	•	•
22	" hederaceus, L.	X	x	x	X
23	" sceleratus, L.	-	X	•	•
25	" Flammula, L.	X	X	x	X
27	" Lingua, L	x	•	-	•
28	" auricomus, L.	X	-	-	•
29	" acris, L.	X	X	X	X
30	" repens, L	X	x	¥	X
31	" bulbosus, L.	X	-	•	•
32	" Sardous, Crantz.	X	X	•	•
34	,, arvensis, L.	•	•	x	•
36	" Ficaria, L.	X	X	x	•
	Caltha palustris, L.	x	X	X	X
87c	" " " minor, Syme.	X	-	-	-
	Trollius Europæus, L.	x	-	x	•
	Helleborus fœtidus, L.	x	•	-	•
43	Aquilegia vulgaris, L.	X	-	x	-
	Aconitum Napellus, L.	x	-	x	•
48	Berberis vulgaris, L.	X	•	X	-
50	Nupher luteum, Sm.	x	X	x	X
51	" pumilum, Sm.	X	•	•	•
	Nymphæa alba, L.	x	•	x	X
53	Papaver somniferum, L.	X	-	•	-
54	"Rhæas, L.	•	X	•	-
55	,, dubium, L.	x	X	x	-
	Mecanopsis cambrica, Vig.	X	-	-	•
	Chelidonium majus, L.	X	X	-	-
	Corydalis duten, D.C.	X	•	-	•
65	" claviculata, D.C.	X	X	x	X
666	Fumaria pallidiflora, Jord. var., Boræi, Jord.	X	•	-	•
67	" confusa, Jord.	X	-	•	•
68	,, muralis, Sonder.	X	•	-	-
70	", officinalis, L.	X	-	x	•
	Cheiranthus cheiri, L.	x	•	•	-
	Nasturtium officinale, R. Br.	X	X	X	•
77	" sylvestre, R. Br.	•	x	-	•

	**	Distric			
No.	NAME.	1	2	8	4
78	Nasturtium palustre, D. C.	-	x	x	_
	Barbarea vulgaris, R. Br.	x	x	x	
	Arabis sagittata, D. C.	x	-	-	-
	Cardamine amara, L.	x	x	x	-
92	" pratensis, L.	x	x	X	x
93	himourta T	x	x	x	-
94	Acreson With	x	×	x	x
	Draba muralis, L.	x	-	-	-
101	inaana Ť	-	_		x
	Erophila vulgaris, D.C.	x	x	_	•
	Cochlearia officinalis, L.	-	x	_	_
	Hesperis matronalis, L.	x	x	x	_
	Sisymbrium Thaliana, Hook.	x	•	x	-
113	officiants Goom	x	x	x	
115	Sambia T				-
	,, Sophia, L.	X	X	•	•
118	", Alliaria, Scop.	X	•	X	•
	Erysimum cheiranthoides, L.	X	X	X	-
	Brassica oleracea, L.	I	-	•	-
126	,, Rapa, L. ?	-	X	•	•
131	" Sinapis, Visiani.	x	X	X	X
134	Diplotaxis tenuifolia, D. C.	•	x	•	•
	Capsella Bursa-pastoris, Moench.	X	X	Æ	X
	Senebiera Coronopus, Poir.	-	X	-	•
	Lepidium ruderale, L.	•	X	•	•
142	" campestre, R. Br.	•	X	•	•
143		X	•	x	-
	Thlaspi arvense, L.	X	X	-	-
153	Cakile maritima, Scop.	-	X	•	•
154	Raphanus Raphanistrum, L.	x	-	•	-
158	Reseda Luteola, L.	x	x	•	-
162	Helianthenium Chamæcistus, Mill.	x	•	-	•
164	Viola palustris, L.	X	X	x	x
165	,, odorata, L.	x	-	•	-
167	,, sylvatica, Fr.	X	x	x	x
173	,, tricolor, L.	x	-	x	x
174	,, arvensis, Murr.	x	x	-	-
176		x	•	•	-
177	Polygala vulgaris, L.	x	•	x	x
178	" oxyptera, Reichb.	x	-	-	x
179	" serpyllacea, Weigh.	x	-	x	x
	Silene Cucubulus, Wibel.	x	x	-	•
196		-	x		•
198	" acaulis, L.	-	-	•	x
202	" noctiflora, L.	x	-		
	Lychnis alba, Mill.	x	x	-	
205	" diurna, Sibth.	x	X	x	x
206	" Flos-cuculi, L.	x	x	x	X
309	" Githago, Lam.	x	-	-	-
	Corastium tetrandrum, Curt.	x	-		•
215	" glomeratum, Thuil.	x	x	x	x
	,, <u> </u>	•		,	

20	1)istr	icta	
No. NAME.	1	2	8	4
216 Cerastium triviale, Link.	X	x	x	x
217 ,, alpinum, L.	•	-	-	X
219 ,, arvense, L.	x		-	•
221 Stellaria aquatica, Scop.	-	x	-	•
222 ,, nemorum, L.	x		-	-
223 , media, Cyr.	x	x	x	x
225 , Holostea, L.	x	x	x	x
226 , palustris, Ehrh.	×	x	-	-
007 mominos T	x	×	x	x
009 illiminana Mara	x	×	x	x
233 Arenaria trinervia, L.	x	x	x	-
694Ilifalia T	x	•	x	_
239 Sagina maritima, Don.	•	x	•	-
040				-
040 Programbone T	X	•	•	÷
	X	X,	X	X
245 Sagina subulata, Presl.	X	•	•	•
246 ,, nodosa, E. Mey.	I	-	-	_
247 Spergula arvensis, L.	X	X	X	X
248 Lepigonum rubrum, Fr.	X	•	•	•
249c , salinum, Fr., var. neglectum	,			
Kindb.	•	X	•	•
255 Montia fontana, L.	x	•	x	X
255b ,, ,, var. rivularis, Gmel.	X	•	-	•
257 Elantine hexandra, D. C.	x	•	-	•
259 Hypericum Androsæmum, L.	•	-	•	X
263 , perforatum, L.	X	x	X	x
264a ,, quadrangulum, L., var. dubium	,			
Leers.	X	•	-	-
265 , quadratum, Stokes	X	x	x	•
267 , humifusum, L.	x	-	X	x
269 , pulchrum, L.	x	-	x	x
277 Malva moschata, L.	x	-	•	-
278 ,, sylvestris, L.	X	x	x	-
279 ,, rotundifolia, L.	X	x	x	•
284 Tilia vulgaris, Hayne.	X	x	x	-
287 Linum catharticum, L.	X	•	x	x
290 , usitatissimum, L.	x	x	x	-
291 Geranium sanguineum, L.	x	-	-	•
295 ,, sylvaticum, L.	x	•	x	x
296 , pratense, L.	x	-	-	•
298 ,, molle, L.	x	x	x	x
299 , pusillum, Burm.	X	X		-
301 ,, dissectum, L.	x	X	x	X
303 ,, lucidum, L.	x	•	-	-
304 ,, Robertianum, L.	x	x	x	x
305 Erodium cicutarium, L'Herit.	x	x	-	-
308 Oxalis Acetosella, L.	x	x	x	X
314 Ilex Aquifolium, L.	X	•	x	ĭ
318 Acer Pseudo-piatanus, L.	I	×	X	X
910	x	x		•
519 ,, campestris, 14	-	*	•	•

16	-3	Dist	rict		
No. NAME.	1	2	3	4	
323 Ulex europæus, L.	x	x	x	x	
326 Cytisus scoparius, Link.	X	x	x	X	
327 Ononis repens, L.	X			•	
331 Medicago sativa, L.	X	X		-	
334 " lupulina, L.	I	X			
335 , denticulata, Willd.	x	-			
338 Melilotus altissima, Thuill.		x			
839 ,, alba, Desr.	4	x	•		
341 ,, parviflora, Lam.		X		-	
343 Trifolium pratense, L.	x	x	I	X	
344 ,, medium, L.	x	X	X		
346 ,, maritimum, Huds.		X	+	•	
350 ,, arvense, L,	٠	x	•		
852 ,, striatum, L.	x				
357 ,, hybridum, L.	X	X			
358 ,. repens, L.	x	x	x	X	
362 , procumbens, L.	x	x	x		
363 ,, dubium, Sibth.	x	x	x	x	
365 Anthyllis Vulneraria, L.	x		•	*	
366 Lotus corniculatus, L.	x	x	x	x	
366c ,, var. villosus, C. & G.		x			
368 ,, pilosus, Beeke.	X	x	x	x	
373 Astragalus glycyphyllos, L.	x	4.		•	
376 Ornithopus perpusillus, L.	x				
381 Vicia hirsuta, Koch.	x	-	x		
384 ,, Cracca, L.	x	x	x	X	
387 " sepium, L.	x	X	X	x	
391 ,, sativa, L.	٠	x	4	-	
392 ,, augustifolia, Roth.	x	x		•	
399 Lathyrus pratensis, L.	x	I	x	x	
405 " macrorrhizus, Wimm.	X		•	X	
407 Prunus communis, Huds.	x	X	x	X	
409 ,, domestica, L.	X	x			
410 " Avium, L.	X	x	x	•	
412 ,, Padus, L.	X	x	x	X	
413 Spiræa salicifolia, L.	1	x		•	
414 , Ulmaria, L.	x	x	x	x	
416 Rubus Idœus, L.	X	X	x	X	
417 ,, suberectus, Anders.	x		x	•	
424 " Lindleianus, Lees.		15		x	
439 ,, villicaulis, Koehl.	x		x	x	
441d " macrophyllus, W. & N., var.					
glabratus, Bab.	x	8			
452 ,, echinatus, Lindl.	X	•	•		
471 ,, corylifolius, Sm.	x	•	*	-	
473 , scabrosus, P. J. Mull.	X		•	*	
475 , saxatilis, L.	X	3	x	x	
478 Geum urbanum, L.	x	X	X	X	
479 , intermedium, Ehrh.	x	I	x	•	
480 ,, rivale, L.	X	x	X		

		Dist	rict	8.
No. NAME.	1	.3	8	4
481 Fragaria vesca, L.	x	x	x	•
485 Potentilla Fragariastrum, Ehrh.	X	-	X	X
488 ,, Tormentilla, Neck.	x	X	X	x
490 ,, reptans, L.	X	x	•	•
491 ,, anserina, L.	X	X	X	X
495 ,, Comarum, Nestl.	x	x	X	x
496 ,, Sibbaldi, Hall.	•	-	•	X
497 Alchemilla arvensis, Lam.	X	X	X	x
498 ,, vulgaris, L.	X	X	X	X
498b ,, var. montana Willd.	X	X	X	-
499 ,, alpina, L.	•	-	•	X
501 Agrimonia Eupatoria, L.	X	X	-	•
502 ,, odorata, Mill.	•	-	X	•
506 Rosa spinosissima, L.	X	X	-	•
509 ,, mollis, Sm.	X	X	•	•
509b ,, ,, var. cœrules, Woods.	•	X	-	•
510 ,, tomentosa, Sm.	X	-	-	X
510b ,, var. subglobosa, Sm.	X	•	-	-
511 ,, rubiginosa, L.	•	X	•	-
514 ,, canina, L.	X	X	-	X
514a ,, var. lutetiana, Leman,	X	-	•	X
514e " var. dumalis, Bechst.	X	x	-	X
514g " " var. urbica, Leman,	X	-	· X	•
514w ,, ,, var. subcristata, Baker.	x	x	-	-
514a ,, var. Watsoni, Baker.	X	•	•	•
516 Rosa arvensis, Hudson.	X	•	•	•
525 Pyrus Aria, Sm.	X	•	-	-
530 ,, Aucuparia, Gært.	X	X	X	X
532 ,, Malus, L.	-	X	x	X
534a Cratægus oxyacantha, L. var.,				
oxyacanthoides, Thuill.	X	X	X	•
534d ,, var., monogyna,				
Jacq.	X	X	X	X
536 Saxifraga oppositifolia, L.	•	•	•	X
538 ,, stellaris, L.	X	•	-	x
543 , aizoides, L.	X	•	•	X
552 ,, hypnoides, L.	X	•	•	•
553 Chrysosplenium oppositifolium, L.	X	•	X	X
554 ,, alternifolium, L.	X	-	•	•
555 Parnassia palustris, L.	X	-	•	•
556 Ribes Grossularia, L.	X	X	X	X
557 ,, alpinum, L.	X	-	-	•
558 ,, rubrum, L.	X	X	X	•
559 ,, nigrum, L.	X	-	X	X
562 Sedum Rhodiola, D.C.	X	•		X
563 ,, Telephium, L. 564 ,, villosum, L.	X	X	x	x
77	X	•	-	-
	X	•	X	X
	X	•	•	•
570 ,, генехит, L.	X	•	•	•

		Districts.				
No.	NAME.	1	2	8	4	
574	Drosera rotundifolia, L.	x	x	x	x	
	Hippuris vulgaris, L.	x	-	-	x	
	Myriophyllum spicatum, L.	x	-	x	-	
580		X	•	x	-	
581	Callitriche vernalis, Koch.	X	x	-	-	
582		x	x	x	X	
583	, hamulata, Kuetz.	X	x	x	•	
585	" autumnalis, L.	x	-	-	-	
587	Lythrum Salicaria, L.	X	•	x	•	
589		X	-	•	•	
	Epilobium angustifoluim, L.	x	-	-	x	
592	" hirsutum, L.	X	-	x	-	
593	" parviflorum, Schreb.	X	X	-	-	
594		X	X	x	X	
598	,, obscurum, Schreb.	X	x	-	X	
600	., palustre, L.	X	-	-	X	
602	,, anagallidifolium, Lam.	-	-	•	X	
607	Circæa lutetiana, L.	X	•	x	-	
608	,, alpina, L.	X	•	-	X	
608	b ,, ,, L. var. intermedia, Ehrh.	•	•	•	X	
610	Hydrocotyle vulgaris, L.	X	x	x	x	
614	Sanicula europæa, L.	x	x	x	X	
	Conium maculatum, L.	X	-	-	•	
618	Smyrnium Olusatrum, L.	X	-	-	-	
	Apium inundatum, Reichb.	x	-	-	X	
	Carum verticillatum, Koch.	-	-	x	X	
630	" Petroselinum, Benth.	X	x	-	-	
632		-	x	-	•	
637	Ægopodium Podagraria, L.	X	x	x	x	
638	Pimpinella Saxifraga L.	X	-	-	•	
	Conopodium denudatum, Koch.	X	x	x	X	
641	Myrrhis odorata, Scop.	x	•	x	-	
642	Chœrophyllum temulum, L.	X	•	X	-	
643	Scandix Pecten-Veneris, L.	-	X	-	•	
645	Anthriscus sylvestris, Hoffm	X	x	x	-	
646		x	•	•	-	
	Œnanthe crocata, L.	X	X	X	X	
658	Æthusa Cynapium, L.	X	X	•	•	
661	Meum Athamanticum, Jacq.	-	-	-	X	
664	Angelica sylvestris, L	X	X	x	X	
668	Peucedanum Ostruthium, Koch.	X	-	-	•	
670	Heracleum Sphondylium, L.	x	X	x	X	
672	Daucus Carota, L.	X	x	•	•	
677	Caucalis Anthriscus, Huds.	X	x	x	•	
679	Hedera Helix, L.	X	X	x	x	
681		X	•	•	•	
682	Adoxa Moschatellina, L.	X	-	•	•	
683	Sambucus nigra, L.	X	X	X	•	
	Viburnum Opulus, L.	X	x	X	•	
6 86	" Lantana, L.	•	X	•	•	

4 <i>V</i>	D	istr	icts.	
No. NAME.	1	2	8	4
689 Lonicera Periclymenum, L.	x	x	X	x
693 Galium Cruciata, Scop.	x	x	•	-
694 ,, verum, L.	x	-	X	•
696 , Mollugo, L.	x	•	-	•
697 , saxatile, L.	x	x	x	x
698 , sylvestre, Poll.	x	-		•
699 ,, palustre, L.	x	x	x	x
703 , Aparine, L.	X	X	X	x
705 Asperula odorata, L.	X	-	X	x
709 Sherardia arvensis, L.			x	x
710 Valeriana dioica, L.	x	-	-	•
711 ,, officinalis, L	X	x	x	x
719 purene ice T.	×	-	x	•
715 Valerianella olitoria, Mœnch.	I	_	-	•
722 Scabiosa succisa, L.	x	x	x	x
794 envenois T	x	-	-	-
726 Eupatorium cannabinum, L.	x	-	-	•
727 Solidago Virgaurea, L.	x	_	X	x
728 Bellis perennis, L.	x			x
		X	x	-
730 Aster Tripolium, L.	•			x
741 Antennaria dioica, R. Br.	X	-	•	
742 Gnaphalium uliginosum, L. 744 ,, sylvaticum, L.	X	X	X	X
	X	X	-	X
746 ,, supinum, L.	•	•	-	X
756 Bidens tripartita, L.	-	X	•	•
758 Achillea Millefolium, L.	X	X	X	X
759 ,, Ptarmica, L.	X	X	X	X
765 Chrysanthenium segetum, L.	X.	X	X	•
766 , Leucanthemum, L.	X	X	X	x
767 , Parthenium Pers.	X	•	X	x
768 Matricaria inodora, L.	X	X	X	•
768d ,, var. discoides.	-	X	-	•
770 Tanacetum vulgare, L.	X	X	•	x
772 Artemisia vulgaris, L.	X	x	X	•
773 ,, campestris, L.	•	x	-	•
775 Tussilago Farfara, L.	X	X	x	х.
777 Petasites vulgaris Desf.	Х	X	X	•
779 Doronicum Pardalianches, L.	X	x	-	1
781 Senecio vulgaris L.	, X	x	x	x
782 ,, sylvaticus, L.	x	-	x	ĸ
783 ,, viscosus, L.	X	x	•	-
786 ,, Jacobœa, L.	x	X	X	x
787 ,, squaticus, Huds.	X	-	X	x
796 Arctium minus Schk.	x	-	x	x
797 ,, intermeduim, Lange.	x	X	-	•
798 Carduus pycnocephalus, Jacq.	-	x	-	•
800 ,, crispus, L.	x	x	-	•
801 Cnicus lanceolatus, Hoffin.	x	X	x	x
803 ,, palustris, Hoffin.	x	x	x	x
807 ,, heterophyllus, Willd.	x	_	x	x

	40	n	istr	iote.	_
	No. NAME.	1	2	3	4
	809 Cnicus arvensis, Hoffin.	x	x	I	•
	809c ,, yar, setosus, Bess.	x	x	•	-
	816 Centaurea nigra, L.	x	x	x	x
	818 ,, Cyanus, L.	x		-	•
	825 Lapsana communis, L.	x	x	x	I
	831 Crepis virens, L.	x	-	_	I
	833 ,, biennis, L.	-	x	-	
,	835 ,, paludosa, Mœnch.	x	-	X	X
	836 Hieracium Pilosella, L.	x	-	x	x
	847 ,, lingulatum, Backh.	_	•	-	x
	851 , anglicum, Fr.	x	-	-	X
	859 ,, murorum, L.	x	-	-	•
	859d " var. ciliatum, Almq.	x	•	-	-
	863 ,, vulgatum, Fr.	x	_	X	x
	865 , gothicum, Fr	X	•	-	•
	867 , Dewari, Bosw.	•		-	x
	869 ,, prenanthoides, Vill.		•	•	x
	872 , umbellatum, L.	x		-	-
	873 , crocatum, Fr.	x		•	
	874 ,, Eupatorium, Griseb.	x	•	-	
	875 ,, boreale, Fr.	x	-	x	•
	" auratum, Fr.	x	x	-	X
	877 Hypochœris radicata, L.	x	x	x	x
•	881 Leontodon autummalis, L.	x	-	x	x
	COLL TOOL	-	-	-	X
	8810 ,, var. prateinsis, Koch 882 Taraxacum officinale, Web.	x	x	x	x
	882c ,, var. palustre, D. C.	x		•	-
	883 Lactuca virosa, L.	x	-	_	•
	889 Sonchus oleraceus, L.	x		-	-
	890 , asper, Holfin.	x	x	x	-
	891 ,, arvensis, L.	x	x	-	x
	893b Tragopogon pratensis, L var. minus, Mill,	•	X	•	-
	895 Lobelia Dortmauna, L.	x	•	x	X
	902 Campanula Trachelium, L.	x	-	-	-
	903 ,, latifolia, L.	x	•	-	•
	905 ,, rotundifolia, L.	x	•	x	x
	910 Vaccinum Oxycoccos, L.	x	•	x	X
	911 ,, Vitis-Idea, L.	x	•	•	x
	913 ,, Myrtillus, L.	x	•	x	x
	918 Calluna Erica, D.C.	x	x	x	X
	920 Erica tetralix, L.	x	x	x	x
	922 ,, cinerea, L.	x	x	x	X
	930 Pyrola minor, Sw.	X	•	•	-1
	938 Armeria maritima, Willd.	•	x	-	x
	941 Primula vulgaris, Huds.	X	x	x	x
	942 ,, veris, L.	X	-	•	•
	948 Lysimachia thyrsiflora, L.	x	-	-	•
	949 ,, vulgaris, L.	•	•	x	x
	952 ,, nummularia, L.	x	•	x	•
	953 ,, nemorum, L.	x	x	x	x
	••				

21	Distric			
No. NAME.	1	2	8	` 4
954 Trientalis europœa, L.	x		x	-
955 Glaux maritima, L.		x	•	•
956 Anagallis arvensis, L.		X		_
961 Fraxinus excelsior, L.	x	x	x	x
962 Ligustrum vulgare, L.	x	-	x	-
964 Viuca minor, L.	x		•	
978 Gentiana campestris, L.	x	x	_	_
	x		x	x
979 Menyanthes trifoliata, L.	•	x	•	^
980 Lymnanthemum peltatum, Gmel.				-
985 Symphytum officinale, L. 986 , tuberosum, L.	X	•	X	•
· · · · · · · · · · · · · · · · · · ·		X		_
987 Borago officinalis, L.	X	•	•	•
989 Auchusa sempervivens, L.	X	•	•	•
990 Lycopsis arvensis, L.	X	X	-	-
994 Myosotis cospitosa, Schultz.	x	X	X	X
995 ,, palustris, With.	X	X	X	X
996 ,, repens, D. Don.	X	•	•	-
998 , sylvatica, Hoffin.	X	x	-	•
999 ,, arvensis, Hoffin.	X	X	•	X
1001 , versicolor, Reichb.	X	X	X	x
1005 Lithospermum arvense, L.	•	X	-	-
1006 Echium vulgare, L.	X	X	-	•
1008 Calystegia sepium, R. Br.	x	x	X	-
1010 Convolvulus arvensis, L.	x	-	•	X
1015 Solanum Dulcamara, L.	x	X	-	•
1016 ,, nigrum, L.	X	-	-	-
1018 Atropa Belladonna, L.	X	•	•	•
1020 Hyoscyamus niger, L.	x	-	-	•
1021 Verbascum Thapsus, L.	x	-	•	•
1023 ,, Lychuitis, L.	x	-	-	-
1024 ,, nigrum, L.	X	•	-	-
1028 Linaria Cymbalaria, Mill.	x	-	x	-
1035 ,, vulgaris, Mill.	x	-		-
1036 , viscida, Mœnch.	•	x	•	-
1037 Antirrhinum majus, L.	x	-	-	-
1041 Scrophularia nodosa, L.	x	X	x	x
1043 ,, vernalis, L.	x	x	-	-
1044 Mimulus luteus, L.	x	x	x	x
1047 Digitalis purpurea, L.	x	X	x	x
1048 Veronica hederæfolia, L.	x		-	-
1050 agreetin T	x			
1051 populas Pois	x	_		
1054 arvangia T.	x	x	X	X
1056 germullifolia T.	x	x	x	x
1069 officially T	x	X	x	X
1069 Chamadama T.	X	X		
			X	X
1065 soutablete T.	X	x	_	•
			•	-
		x		•
1067 , Becc lunga, L.	X	X	X	-

4 2	T	istr	icts.	
No. NAME.	1 ~	2	8	4
1068 Euphrasia officinalis, L.	x	x	-	x
1069 Barteia Odontites, Huds.	x	x	x	x
1072 Pedicularis palustris, L.	x	x	X	x
1073 ,, sylvatica, L.	x	-	x	x
1076 Melampyrum pratense, L.	-	-	x	x
1078 Rhynanthus Crista-galli, L.	x	x	x	x
1094 Utricularia minor, L.	x	x	•	-
1097 Pinguicula vulgaris, L.	x	•	X	x
1103 Mentha alopecuroides, Hull.	x	-	I	-
1108 ,, hirsuta, L.	x	-	•	X
1114 ,, arvensis, L.	X	X	-	X
1116 Lycopus europœus, L.	X	X	•	X
1118 Thymus Serpyllum, Fr.	X	•	X	X
1120 Calamintha Clinopodium, Benth.	x	•	-	-
1128 Nepeta Cataria, L.	X	•	•	•
1129 , Glechoma, Benth.	X	•	X	X
1130 Scutellaria galericulata, L.	X	-	X	X
1131 ,, minor, L.	-	-	X	•
1132 Prunella vulgaris, L.	X	x	X	X
1137 Stachys palustris, L.	X	-	X	x
1139 ,, sylvatica, L.	X	X	X	X
1145 Galeopsis speciosa, Mill.	I	X	X	×
1146 , Tetrahit, L.	X	X	X	X
1148 Lamium amplexicaule, L.	X	-	•	•
1150 ,, hybridum, Vill.	X	-	•	
1151 , purpureum, L.	X	X	X	X
1151b , , decipiens, Sonder.	X	•	•	•
1152 ,, maculatum, L. 1153 ,, album, L.	x	x	_	
1153 ,, album, L. 1155 Ballota nigra, L.	X	X	-	•
1159 Teucrium Scorodonia, L.	X	•	x	x
1160 Ajuga reptans, L.	x	x	x	x
1163 Plantago major, L.	x	x	x	x
1164 modia T	x	-	•	-
1188 lampoolete T.	×	x	x	x
1167 manitima T	-	x	•	•
1170 Litorella lacustris, L.	x	x	-	•
1176 Scleranthus annuus, L.	x	_	x	-
1181 Chenopodium album, L.	x	x	x	X
1187 ,, rubrum, L.		x		•
1190 , Bonus-Henricus, L.	x	x	•	-
1193 Atriplex patula, L.	x	x	X	-
1193c ,, var. angustifolia, Sm.	•	x	-	•
1195 ,, deltoidea, Bab.	-	X	•	•
1205 Polygonum Convolvulus, L.	x	x	X	x
1207 ,, aviculare, L.	x	x	X	X
1210 , Hydropiper, L.	x	x	X	x
1213 ,, Persicaria, L.	x	x	X	X
1214 , lapathifolium, L	x	X	X	-
1216 ,, amphibium, L.	x	x	X	X

	20		Dist	ricts	t.
No.	NAME.	1	2	8	<u> </u>
1217 Polygonum	Bistorta, L.	x	x	x	-
1218 "	viviparum, L.	-	-	-	x
1220 Oxyria dig	■		•	-	x
	glomeratus, Murr.	x	x		-
	guineus, L.	x		-	-
12226 ,,	,, var. viridis, Sibth.	x	_	-	-
	usifolius, L.		x		-
1226b "	" var. sylvestris, Walls	r	x		-
•	spus, L.	x	x	x	
	naticus L. (=R. domesticus,			_	
	rtm).	x	-	_	
1999 A.	etosa, L.	x	x	x	x
1095 " A.	etosella, L.	x	x	x	x
1000 " 11	oridus.	-		_	_
.,	tus x obtusifolius.		x		_
,, acu 1240 Daphne La		x	•		
1245 Euphorbia		x	x	x	-
	Peplus, L.	x	•	•	
1261 Mercurialis		x	x	x	x
1060	annua, L.	-	x	•	•
1263 Ulmus mor		х	x	x	_
	pestris, Sm.	X	x	•	_
1264 ,, can 1265 Humulus L	ipesurs, om. innilus T.	X		_	_
1266 Urtica dioi	oo T.	X	x	x	x
	18, L.	X	X		_
1269 Parietaria	Minimalia T.	X			•
1270 Myrica Gal	o T.				
1270 Betula alba	е, д. Т.	X	X	X	X
		X	X	X	X
1274 Alnus gluti		х	X	X	X
1275 Carpinus B		•	X	X	-
1276 Corylus Av		X	X	X	X
1277 Quercus Ro 1277a ,		X	X	X	X
1077-	,, var. pedunculata, Ehrh.	X	X	X	X
	,, var. sessiliflora, Salisb.	•	-	X	X
1278 Castanea sa 1279 Fagus sylva	tion T	X	X	X	•
		X	X	X	
1280 Salix penta 1281 fragil		X	•	X	•
., 5		-	X	-	-
12816 " "	var. britanniea, F.B.W.	X	X	-	•
	var. decipiens, Hoffin.	X	X	-	-
	u.	X	X	-	-
	rea, L.	X	X	-	-
	ea, Forbes.	X	•	•	•
	alis, L.	X	X	•	•
	iana, Willd.	X	X	•	•
1291c ,, ,,		-	X	•	-
1295 ,, cinere 1296 aurits		X	•	X	X
,,		x	•	•	X
	ens, A. Kern,	X	X	•	-
1297 " Capre	26, LI.	X	•	X	•

	24				
	N - 257		Digt		9.
No.	NAME.	1	2	8	4
	Salix Capreola, J. Kern.	X	-	-	-
1300	77 6 7 1	X	-	-	•
1309		•	•	-	X
I311	Populus alba, L.	X	X	•	X
1313	,, tremula, L.	x	X	x	X
1314	,, nigra, L.	X	X	•	•
1315	Empetrum nigrum, L.	X	-	-	. X
	Ceratophyllum demersum, L.	-	X	-	•
	Juniperus communis, L.	x	_	x	x
	Pinus sylvestris, L.	x	x	X	X
	Elodea Canadensis, Mich.	x	x		
	Malaxis paludosa, Sm.	-	-	-	x
	Listera cordata, R. Br.	X	_		x
1331		X	Ţ	x	•
	" ovata, R. Br.		X		-
	Epipactis latifolia, Auct.	X	X	X	•
	Orchis mascula, L.	X	X	X	•
1354	,, incarnata, L.	X	•	-	•
1355	" latifolia, L.	X	•	•	-
1356	", maculata, L.	X	X	X	X
	Habenaria conopsea, Beuth.	X	-	X	X
1365	,, albida, R. Br.	X	•	-	X
136 6	" viridis, R. Br.	X	•	•	•
1367	" bifolia, R. Br.	X	-	X	•
1368	" chloroleuca, Ridley.	X	-	X	x
1371	Iris pseudacorus, L.	X	X	x	x
1381	Narcissus major, L.	x	-	-	•
1385	Galanthus nivalis, L.	x	X	•	•
1407	Allium ursinum, L.	x	x	x	x
	Scilla nutans, Sm.	x	x	X	x
	Ornithogalum umbellatum, L.	x	•		•
	Gagea fascicularis, Salisb.	x	_		
	Narthecuim ossifragum, Huds.	x		x	x
1402	Tofieldia palustris, Huds.	-		•	x
1420	Paris anadrifolis T		_		
	Paris quadrifolia, L.	X	Ţ	•	•
	Juncus bufonius, L.	X	X	•	X
1426	" trifidus, L.	-	•	·	X
1427	,, squarrosus, L.	X	•	X	x
1433	" glaucus, Ehrh.	X	X	-	•
1434	" diffusus, Hoppe.	•	X	-	•
1435	" effusus, L.	•	-	•	X
1436	,, conglemeratus, L.	x	X	X	X
1439	" supinus, Mœnch.	x	•	X	X
1442	" lamprocarpus, Ehrh.	x	x	-	X
1443	,, acutiflorus, Ehrh.	x	x	X	X
1449	Luzula pilosa, Willd.	x	-	•	-
1450	,, maxima, D.C.	х	-	X	x
1452	" spicata, D.C.	•	-	-	x
1453	" campestris, D.C.	x	-	X	-
1454	multifora Tai	x	×	x	x
14546	ver congeste Koch	X	,	•	•
~ 40	ii ii Anti Confeensi Hodul	7#			

		Districts.			•
No	NAME.	1	2	8	4.
	Typha latifloha, L.	X	-	-	-
1457	Sparganium ramosum, Curtis.	x	X	x	-
1459	,, simplex, Huds.	-	X	-	-
1460	" affine, Schnizl.	X	X	x	-
1461	minimum Vr	X	-	•	-
	Arum maculatum, L.	x	-	-	•
1465	Lemna trisulca, L.	X	•	•	-
1466	inon T.	I	x	-	-
	Alisma Plantago, L.	x	x	x	X
1476		x	x	•	-
1477	wasitimum L	-	X	-	-
		x	x	x	X
1479	nolygonifolius Pour.	X	•	x	I
1480	" rufescens, Schrad.	x	•	X	_
1483	heterophyllus, Schreb.	×	_	-	_
1487	nitens, Web.	×		-	-
1488	decipiens, Nolte.	-	-	x	
1490	prelongus, Wulf.	•	x	-	_
1494		x	Ŷ	•	-
1495	" perfoliatus, L.	x	-	_	_
1.00	,, var. lanceolatus, Blyth.	Î	x		٠.
1496	,, crispus, L.	•	•	_	-
1500	" obtusifoluis, Mert. and	_			_
	Koch.	I	-	•	-
1501	" Friesii Rupr.	X	•	•	-
1502	" pusillus, F.	X	-	_	_
1503	" Sturrockii, A. Ben.	X	•	•	-
1505	pectinatus, L.	X	•	•	•
1522	Eleocharis acicularis, Sm.	X	•	•	•
1528	" palustris, B. Br.	X	•	X	•
1527		X	X	X	I
1531	,, setaceus, L.	X	-	-	I
1538	,, lacustris, L.	•	•	X	-
1538	,, maritimus, L.	•	X	•	•
1539	,, sylvatious, L.	•	X	X	•
1543	Eriophorum vaginatum, L.	x	•	X	X
1544	" angustifolium, Roth.	X	•	I	X
1548	Rynchospora alba, Vahl.	•	X	x	I
	Carex dioica, L.	-	•	-	X
1555	., pulicaria, L.	x	•	•	X
1557	,, pauciflora Lightf.	•	•	• '	X.
15622		_		_	_
	var. Erhartiana Hoppe.	x	•	٠,	_
1564	,, paniculata, L.	I	-	•	-
1565	, vulpina, L.	-	I	•	-
1567	" muricata, L.	X	•	-	-
1569	ashimata Marm	I	-	x	x
1570	marracta T.	x	I	1	I
1576	annta Cand	Ī	ī	x	-
1577	' annie Classi	Ī	ī	-	X.
1582	namen T	Ī	-	-	_
1904	,, action, i.e.	-	-	•	

26					
27.4.7.6.00		Districts.			
No. NAME.	1	2	8	=	
1582d Carex acuta, var. gracilescens, Almq.	•	•	X	•	
1584 ,, rigida, Good.	•	•	•	X	
1585b Carex aquatilis Whahl, var. Watsoni					
Syme.	X	-	÷	-	
1587 , Goodenowii, J. Gay.	X	X	X		
1587b ,, , var. juncella, Fries.	X	•	•		
1588 ,, glauca, Murr.	x	X	-	-	
1589 ,, irrigua, Hoppe.	-	•	•	X	
1596 ,, pilulifera, L.	X	•	•	×	
1598 ,, prœcox, Jacq.	X	•	÷		
1600 ,, pallescens, L.	X	•	X	X	
1601 ,, panicea, L.	X	X	X	•	
1606 , pendula, Huds.	•	•	X	•	
1609 ,, sylvatica, Huds.	X	-	•	I	
1610 ,, lœvigata, Sm.	X	x	-	X	
1611 ,, binervis, Sm.	X	•	1	X	
1614 , fulva, Good.	X	•	-	X	
1616 ,, flava, L.	X	X	X	X	
1616c ", var. lepidocarpa, Tausch.	X	-	•	-	
1617 " Œderi, Ehrh.	•	-	-	x	
1619 ,, hirta, L.	X	X	X		
1621 ,, paludosa, Good.	X	-	-	-	
1623 ,, rostrata, Stokes,	x	X	X	X	
1624 , vesicaria, L.	•	•	X	X	
1636 Phalaris canariensis, L.	I	X	-	-	
1638 ,, arundinacea, L.	X	X	X	X	
1639 Anthoxanthum odoratum, L.	I	X	X	X	
1642 Alopecurus agrestis, L.	•	X	-	•	
1644 " geniculatus, L.	X	X	x	I	
1646 , pratensis, L.	X	X	I	•	
1648 Milium effusum, L.	X	•	-	•	
1650 Phleum pratense, L.	x	. X	X	•	
1652 ,, arenarium, L.	-	X	•	•	
1656 Agrostis alba, L.	X	:	•	•	
1657 ,, vulgaris, With.	X	X	×	x	
1657b " " var. pamila, L.	X	X		•	
1658 Polypogon monspeliensis, Desf.	•	X	•	•	
1670 Aira caryophylles, L.	X	•	X		
1671 , prœcox, L.	X	:	ĭ	X	
1673 Deschampsia cospilosa, Desca.	X	X	X	X	
1676 Hexuosa, Tria.	X	X	X	X	
1676b ", ver. montana,		_	_	_	
Huds.	•		<u>.</u>	X	
1677 Holeus mollis, L.	I	I	I	-	
5070 "INDALID. 14.	X	X	X	-	
1679 Tusethin magazana peara	o X	¥	:	-	
1680 Avena pubescens, Huds.	X		-	-	
1684 Arrhenatherum avenaceum, Beauv.	X	X	X	x	
16845 , , , , , var. nodesum, Reichb.	_	_	_	-	
reicuo.	, X	•	-	-	

~		Districts.		
No. NAME	1		3 8	4
1686 Sieglingia decumbens, Bernh.				I
1687 Phragmites communis, Trin.		X		x
1689 Cynosurus cristatus, L.	x		x	ī
1692 Molinia curulea, Moench.	x	x	ī	x
1693 Catabrosa aquatica, Beauv.	-	Î	•	•
1695 Melica uniflera, Retz.	x	•	•	x
1696 Dactylis glomerata, L.				
1698 Briza media, L.	X	×	X	x
1700 Poa annua, L.	I		•	_
4808 II T		X	X	
1700 T	x	•	X	_
9710				_
TATE ALLEGIA T	X	X	X	X
1711 ,, trivialis, 11. 1712 Glyceria fluitans, R. Br.	X	X	X	X
	X	X	X	X
	X	X	•	-
1715 , maritima, Wahl.	-	X	•	-
1716 ,, distans, Wahl.	-	X	•	-
1718 Festues procumbens, Kunth.	-	X	-	•
1720 ,, loliacea, Huds.	•	X	•	-
1725 ,. ovina, L.	X	•	X	X
1726 ,, rubra, L.	X	X	X	-
1730 ,, elatior, L.	X	X	•	-
1731 ,, arundinacea, Schreb.	•	X	-	-
1732 Bromus giganteus, L.	X	-	X	-
1733 ,, asper, Murr.	X	X	x	-
1738 ,, scerilis, L.	X	X	•	-
1742 ,, mollis, L.	X	X	x	x
1744 Brachypodium sylvaticum, Roem.	X	•	•	-
1746 Lolium pereune, L.	X	X	x	x
1750 Agropyron repens, Beauv.	•	'X	•	-
1750b ,, ,, var. barbatum, Duval	•			
Jouve.	X	-	-	-
1755 Nardus stricta, L.	X	•	x	X
1757 Hordeum pratense, Huds.	X	•	•	•
1758 ,, murinum, L,	-	X	•	-
1761 Hymenophyllum Tunbridgense, Sm.	-	-	-	x
1762 ,, unilaterale, Bory.	x	-	x	X
1765 Pteris aquilina, L.	X	X	x	x
1766 Cryptogramme crispa, R. Br.	x	•	-	-
1767 Lomana spicant, Deso.	x	•	X	X
1770 Asplenuim Adiantiun-nigrum, L.	X	-	•	-
1772 ,, viride, Huds.	I	•	•	x
1773 , Trichomanes, L.	x	x	x	-
1775 , Ruta-muraria, L.	X	x	•	-
1778 Athyruim Filix-fæmins, Roth.	X		¥	x
1782 Scolopendrium vulgare, Symons.	X		I	•
1785 Cystopteris fragilis, Bernh.	X		X	x
1785b ,, var. dentata, Hook.	x		•	-
1788 Polystichum Lonchitis, Roth.	X		•	x
1789 , lobatum, Presl.	I	-	•	-
**	_			

	Districts.			
No. NAME.	1	2	3	4
1789b Polystichum lobatum, var. sculeatum,				
Syme.	X	•	x	•
1792 Lastræa oreopteris, Presl.	X	-	x	X
1793 ,, Filix mas, Presl.	X	X	X	-
1793c ,, ,, ,, var. paleacea, Moore.	X	-	-	X
1798 ,, spinulesa, Presl.	X	X	x	X
1799 ,, dilatata, Presl.	X	X	X	X
1799e ,, ,, var. alpina, Moore.	•	-	•	X
1801 Polypodium vulgare, L.	x	X	X	X
1802 Phegopteris Dryopteris Fée.	X	-	x	x
1804 , polypodioides, Fée.	X	-	X	X
1806 Osmunda regalis, L.	x		•	X
1807 Ophioglossum vulgatum, L.	I	•	•	•
1809 Botrychium Lunaria, Sm.	X	-	•	-
1812 Equisetum arvense, L.	X	X	X	x
1814 ,, sylvaticum, L.	X	x	x	x
1815 ,, palustre, L.	X	•	-	X
1815b ,, var. polystachium				
auct.	X	•	•	-
1817 ,, limosum, Sm.	X	X	x	X
1822 Lycopodium Selago, L.	X	•	•	x
1825 ,, clavatum, L.	x	•	-	•
1826 , alpinum, L.	x	•	-	X
1828 Selaginella selaginoides, Gray.	x	-	•	X
1829 Isoetes lacustris, L.	X	•	x	X
1833 Chara fragilis, Desv.	X	•	•	•
1838e " " var. delicatula, A, Br.	X	•	•	•
1855 Nitella translucens, Agardh.	x	•	x	•
1857 " opaca, Agardh.	X	-	X	•