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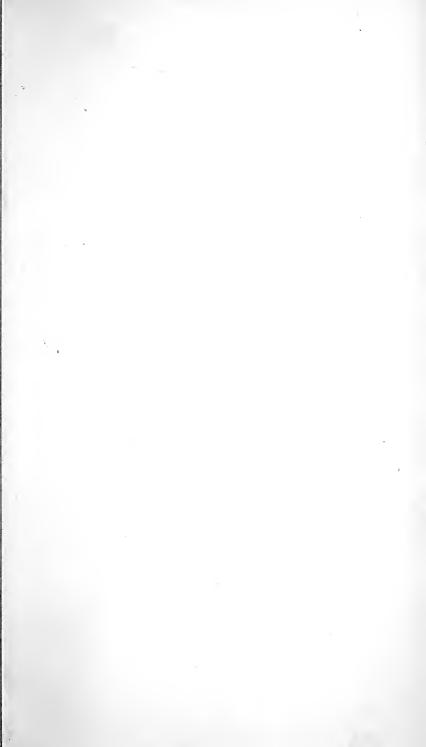


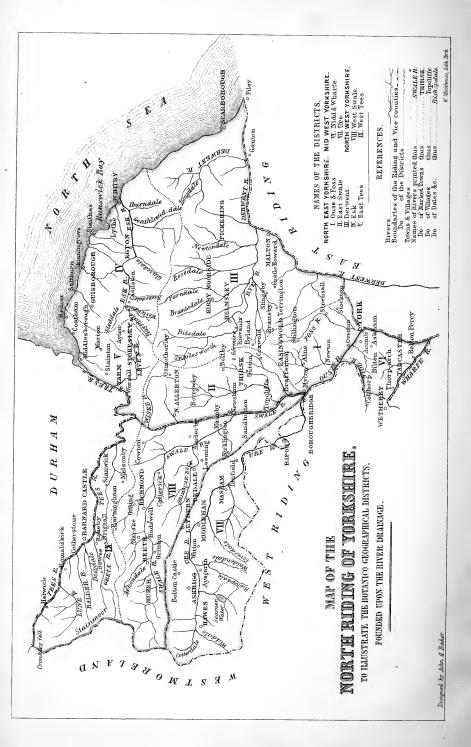
SUPPLEMENT

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BAINES' FLORA OF YORKSHIRE.







SUPPLEMENT

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BAINES' FLORA OF YORKSHIRE,

WITH A MAP.

Part First.

THE FLOWERING PLANTS AND FERNS: BY

JOHN GILBERT BAKER, F.B.S.L.

Part Second.

THE MOSSES OF THE COUNTY:

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JOHN NOWELL.

18125

LONDON:

WILLIAM PAMPLIN, 45, FRITH-STREET, SOHO.

1854,

"Nature never did betray The heart that loved her: 'tis her privilege, Through all the years of this our life, to lead From joy to joy: for she can so inform The mind that is within us, so impress With quietness and beauty, and so feed With lofty thoughts, that neither evil tongues, Rash judgments, nor the sneers of selfish men, Nor greetings where no kindness is, nor all The dreary intercourse of daily life. Shall e'er prevail against us, or disturb Our cheerful faith that all which we behold Is full of blessings. Therefore let the moon Shine on thee in thy solitary walk, And let the misty mountain winds be free To blow against thee; and in after years, If solitude, or fear, or pain, or grief, Should be thy portion, with what healing thoughts Of tender joy wilt thou remember me, And these my exhortations!"

- Wordsworth.

NOTE,

BY THE AUTHOR OF THE "FLORA OF YORKSHIRE."

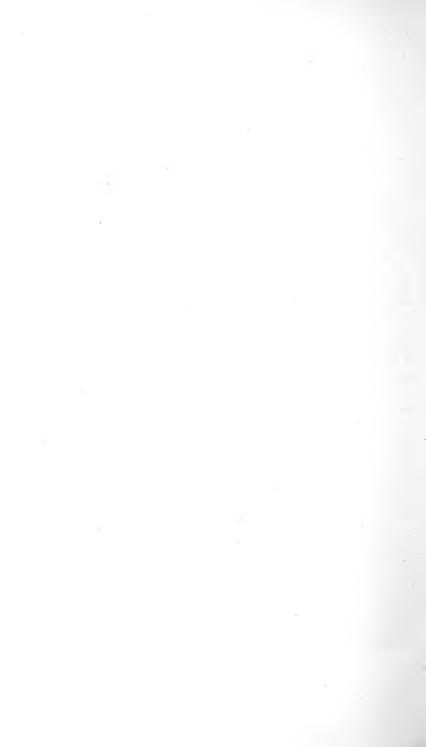
In offering to the Public this Supplement to the "Flora of Yorkshire," I can lay but little claim to direct participation in the large addition of species and stations which has been made since the publication of the work, in 1840.

At that time I took occasion to express my opinion, that many curious discoveries would reward the diligent observer, who might venture beyond the beaten track, into the more secluded districts of the county; but I must confess, that I never anticipated that the number of species added would have been so large as has already proved to be the case.

Had I myself edited the Supplement, it would have been a mere list of species and localities; but Mr. Baker, with the assistance of Mr. Nowell, having with great kindness undertaken the management of the matter, (a task for which their labors in the special field of research, and their acquaintance with the general literature of the subject, have rendered them so eminently fitted.) I may with confidence introduce the Supplement which they have furnished, to the notice of my Friends and the Public, as exhibiting not only a very complete list of the botanical treasures of the county, so far as it professes to treat, but also as a work calculated to lead its readers to the study and investigation of general principles.

HENRY BAINES.

Мизеим, York, Dec., 1854.



INTRODUCTORY EXPLANATIONS.

THE Supplement to the "Flora of Yorkshire" contains a complete list of the flowering plants, ferns, and mosses, known or reported to grow wild within the limits of the county, so far as they have been ascertained by those who have contributed towards it, at the close of the year 1853.

Since the original "Flora" was published, fourteen years have elapsed. During the interval much has been accomplished in collecting facts and details relative to the geography of the plants of Britain, and connecting together the records of their localities and situations which have been gradually accumulated. By arranging and comparing these, considerable progress has been made in tracing the leading features of the distribution of the species which compose the (phænerogamic) flora of Britain over the surface of the island, and investigating the laws and conditions which govern and limit their diffusion. The era of the "New Botanist's Guide" has passed away, and is succeeded by that of the "Cybele Britannica."

During the interval, also, Babington's "Manual of British Botany" has replaced Hooker's "British Flora," as a popular descriptive handbook and standard of nomenclature. The most characteristic feature of this work, which has already passed through three editions, is an endeavour to establish uniformity in the nomenclature employed in this country, with that of the most trustworthy continental authorities of modern times, amongst whom Koch and Fries are pre-eminent. In order to attain this, numerous alterations from the names previously adopted have been rendered necessary. Many species before unknown within the limits of Britain have been found, upon closer examination, to extend their range to this country. And others, which were formerly supposed to be single species only, are found, upon more accurate investigation, to require subdivision. So that the fourth edition of the "London Catalogue of British Plants" is very different from what any similar enumeration which might have been attempted in 1840 would have been. In preparing the first part of the present work, I have endeavoured, so far as I have been enabled by my own observations, and by the assistance of various notes and lists liberally furnished to the author of the "Flora" and to myself, to carry out the idea of the original work up to the present time, by making the additions which were needful to adapt it to the present standard of knowledge. That is to say, I have wished that the "Supplement," either taken alone or in connection with the "Flora," might furnish a summary of the higher vegetation of the county, so far as it has been ascertained: for the use of the botanical and physical geographer, either to be viewed by itself, or considered in comparison and taken in connection with other similar comital enumerations; and of the resident or travelling collector, to give him information respecting the species which he may expect to be enabled to add to his herbarium within the limits of the county, and some of the special localities of the rarities.

In all scientific enumerations of the plants of a definite area, it is needful that a clear line of distinction should be drawn between those which are indubitably ascertained to inhabit it, and those, the occurrence of which within the limits of the district rests only upon doubtful authority or unconfirmed report. It is also essential, if we wish to estimate the true relations of the flora, to separate as accurately as possible those species which are aboriginal inhabitants of the district, so far as can be judged, from those which bear the appearance of having been introduced by human agency at some period more or less remote. Partly in order that we might attempt to trace these distinctions in the present instance; partly because, on account of the alterations in nomenclature, which, as before explained, have been rendered necessary by advancing knowledge, confusion might otherwise have arisen; it has been judged desirable to repeat the complete series of names.

For various reasons, upon which it is unnecessary here to dwell, especially for the sake of uniformity with the "Cybele Britannica," the catalogue of British plants published by the Botanical Society of London, the fourth edition of which has just made its appearance, has been used as an index of nomenclature and arrangement. A line or more is devoted to each species which the county is ascertained or reported to afford; but a single line only to those species, respecting the situations and degree of rarity or frequency of which no further information than is contained in the "Flora" appears necessary to be given, or has been obtained. This line contains, on the left hand side, the number and name under which the species stands in the Catalogue, with an abbreviation of the name of the original authority for the latter. Next is placed one of the following series of terms,* used in the sense explained below, designed to express the degree of citizenship of the species, so far as can be judged from the evidence which has been obtained.

- NATIVE.—Apparently an aboriginal Yorkshire species; there being little or no reason for supposing it to have been introduced by human agency. Examples: Ranunculus acris, Bellis perennis, Calluna vulgaris, Coryllus Avellana.
- DENIZEN.—At present maintaining its habitats as if a native, without the aid of man; yet liable to some suspicion of having been originally introduced. Examples: Viola odorata, Saponaria officinalis, Pyrethrum Parthenium.
- COLONIST.—A weed of cultivated land, and about houses; seldom found, except where the ground has been adapted for its production by the operations of man. Examples: Papaver Rhœas, Brassica Napus, Lychnis Githago.
- ALIEN.—Now more or less established, but either presumed or certainly known to have been introduced by human agency. These may be arranged under two classes :—1st. Species introduced by horticulture. Examples : Corydalis lutea, Mimulus luteus. And 2nd. Species introduced by agriculture, or with ballast. Examples : Alyssum calycinum, Lolium italicum, Trifolium incarnatum.
- INCOGNIT.—Reported as a Yorkshire plant; but either certainly erroneous, or extinct, or requiring confirmation before it can be received with complete confidence. Of species reported through errors in nomenclature, Hieracium villosum, Centaurea jacea, and Stachys germanica, are examples. Others have been placed in Yorkshire lists, on faith of localities which are not within the limits of the county; as Vaccinium uliginosum, Woodsia ilvensis. Amongst those species which have formerly occurred, but are now probably extinct, are,

* Vide "Cybele Britannica," vol. i. page 63.

Silene conica, Potamogeton zosteræfolius, and Carex Gibsoni. Examples of the class of species which are probably correctly reported, may be found in Centaurea calcitrapa, Aceras anthropophora, and Carex brizoides.

One of the most important generalizations which has been established through the onward progress of geographical botany, is, the subdivision of the British flora into "types of distribution,"* according as the species are more or less generally diffused over the whole extent of the island, or are limited to, or preponderate in, some particular section of its surface. In order to afford a means of estimating the relations of the flora of Yorkshire to that of other portions of Britain, on the right hand side of the line is placed the name of the type to which each species may be considered to belong. The types of distribution are thus named and made up.

- 1. BRITISH TYPE.—Species which are more or less generally diffused throughout the whole, or nearly the whole, extent of Britain. Examples: Sagina procumbens, Senecio vulgaris, Thymus serpyllum, Lastrea dilatata.
- 2 ENGLISH TYPE.—Species which have their head quarters in England, especially in the southern provinces, and become rare and finally cease altogether towards the north. Examples: Rhamnus catharticus, Pulicaria dysenterica, Convolvulus sepium, Tamus communis.
- 3. SCOTTISH TYPE.—Species which, contrary to those which make up the last type, have their head quarters in Scotland or in the northern provinces of England, and become rare and finally cease altogether southward. Examples: Trollius europeus, Campanula latifolia, Gnaphalium dioicum.
- 4. HIGHLAND TYPE.—The boreal flora in a more intense degree. Species which have their head quarters amongst the Scotch Highlands, and are only found southward in the vicinity of elevated mountains. Examples: Draba incana, Rubus chamæmorus, Myosotis alpestris.
- 5. GERMANIC TYPE.—Species which have their head quarters in the southeast of England, and run out northward and westward. Examples:

^{*} These were first defined in Watson's "Remarks on the Geographical Distribution of British Plants," published in 1835. They are fully explained in the same author's "Cybele Britannica," vol. i. pp. 43-55, and under each species in detail.

Anemone Pulsatilla, Ophrys apifera, Brachy podium pinnatum.

- 6. ATLANTIC TYPE.—Species which have their head quarters in the southwest of England, and run out northward and eastward Examples : Hypericum Androsæmum, Sedum anglicum, Asplenium marinum.
- LOCAL OR UNCERTAIN TYPE.—Species too much restricted in their distribution to be ranged under any of the preceding pages. Examples: Actwa spicata, Potentilla fruticosa, Gentiana verna. Or doubtful for various reasons

In those cases in which the species has been discovered within the limits of the county, since the "Flora" was published : or further information of sufficient importance to be worth recording has been obtained respecting it: or correction and explanation were rendered necessary, the line which contains the category of citizenship and type of distribution to which the species belongs is followed by a paragraph conveying the requisite information. As may readily be supposed, new localities have been ascertained during the interval which has elapsed since the "Flora" was published, for the greater proportion of the rarer species included in it. But they have only been given in the present work in those cases where very few localities were mentioned under a species in the "Flora," or further verification and confirmation of its occurrence within the limits of the county has appeared desirable. I may take this opportunity of expressing an acknowledgement of my obligations to the numerous kind friends and correspondents, whose names will be found throughout the pages of the work, who have furnished lists of localitics, illustrative specimens, and information of various kinds. Tt will be understood, that in those localities which are not followed by the name of any authority, I have personally collected the species under which they are given. A note of admiration implies that I have examined an authenticated specimen, either from the station specified or of the plant described by an author; and in most of these cases an example is preserved for reference in my herbarium.

In arranging the second part of the work, my colleague has followed the same system of nomenclature and the same order of sequence of the genera and species that was adopted in the "Flora." We should, however, have preferred taking the "Bryologia Europea" of Bruch and Schimper as a standard of classification, if the issue had been completed, or Wilson's forthcoming Manual of "British Bryology," if it had been published in time. He has given the synonyms of those species which have appeared in the former work under different names: and has arranged the mosses which the county has been ascertained to produce, on the same plan which has been pursued with reference to the Flowering Plants and Ferns. That is to say, he has given the names only where no further information of sufficient importance to be worth recording has been obtained respecting those species which are included in the original work, but the localities also of novelties and rarities. But the mosses of a considerable proportion of the county have been only very imperfectly explored, and the long list of species which we are enabled to furnish, is the result, rather of the persevering efforts of a few talented and diligent bryologists in their respective districts, than of the combined labours of a great number of observers.

On account of the comparative paucity of data which have been collected respecting the lower familes of cellular plants, we have not thought it desirable in the present work to exceed the scope of the original Flora. Respecting the Hepaticæ of Yorkshire, information may be procured from the Botanist's Guide, Spruce's list in the Phytologist, (vol. 2, page 156,) and Mac Ivor's Hepaticæ Britannicæ. Teesdale, Harriman, Brunton, Dalton, Hailstone, and Gibson, have determined numerous lichens in different parts of the county, and more recently, my friend W. Mudd, of Ayton, has published in the Phytologist, (vol. 5. page 71, 97,) a list of considerable extent of the species which he has found in Cleveland. Various botanists have collected maritime Algæ, and some few have studied the fresh-water and microscopic groups; but nothing like a complete list of the species which may be supposed likely to inhabit the country has been obtained. The Fungi of the country present a wide field for exertion, which has as yet hardly been entered upon.

JOHN G. BAKER.

THIRSK, 7th mo. 1, 1854.

SUPPLEMENT

TO THE

FLORA OF YORKSHIRE.

Part First.

THE FLOWERING PLANTS AND FERNS:

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JOHN GILBERT BAKER.



GENERAL SUMMARY.

In the present work 1155 species of flowering plants and 53 Ferns are enumerated. Out of these, 73 flowering plants and 8 ferns are either certainly erroneous, or cannot be received with confidence as Yorkshire plants without further confirmation of their occurrence. Of the remaining 1082 flowering plants, 31 are naturalized species only, which are not included in the fourth edition of the London catalogue, and one (Salix acutifolia) has been discovered since it was printed. So that out of 1445 flowering plants enumerated in the catalogue, 1051 species, or 72¹/₂ per cent, and out of 60 ferns, 45 species, or 75 per cent, have been ascertained at the present time to inhabit Yorkshire. If we deduct the alien species of flowering plants the relative proportion of the floras, in the number of species which they contain, still remains nearly the same; for out of 1336 species enumerated in the catalogue, we may claim 955, or $71\frac{1}{2}$ per cent. But out of 1336 flowering plants enumerated in the catalogue, 31 species, and out of 60 ferns, two species, belong exclusively to Ireland or the So that the true proportion which the ascertained Channel Islands. Yorkshire flora bears to the ascertained British flora is $71\frac{1}{4}$ per cent, or 1001 species to 1339.

The following is a tabular summary of the species enumerated in the present work, arranged according to the categories of citizenship under which they are placed :—

FLOWERING PLANTS.		
Native	893	
Denizen	36	
Colonist	27	
		956
FERNS (Native)	••••	55
		1001

Forward	1001
FLOWERING PLANTS.	
Aliens included in the fourth edition of	
the "London Catalogue"	95
Aliens excluded from do	31
	1127
Incognita.	1141
Flowering Plants	73
Ferns	8
	1208

ļ	Flowering Plants.	
Type of Distribution.	Number of Species.	Per Centage.
British English Scottish Highland Germanic Atlantic Local or doubtful	542 272 51 30 29 7 25	57 28 + 5 + 3 + 3 + 1 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -
	956	100

	Ferns.	
Type of Distribution.	Number of Spècies.	Per Centage.
British English Scottish Highland Atlantic Local or Doubtful	$\begin{array}{c} 25 \\ 5 \\ 4 \\ 6 \\ 3 \\ 2 \end{array}$	56
	45	100

If we unite the Germanic and Atlantic types with the English, and the Highland type with the Scottish; and thus group together, 1st species universal, or almost universal in their distribution throughout Britain; 2nd species, which run out northward; 3rd species, which run out southward; and 4th species, of limited diffusion in Britain; we shall find the Flora of Yorkshire thus made up :—

Type of Distribution.	Number of Species.	Per Centage.
1 Universal 2 Austral 3 Boreal 4 Local	567 317 91 26	57
	1001	100

Three species, all of which are comparatively recent discoveries in Britain, are only known in this country within the limits of Yorkshire, viz ;—

Polygala uliginosa Salix acutifolia Carex paradoxa.

There are strong reasons for believing a fourth species to be truly native in Yorkshire, which is not known, except as a naturalized plant, elsewhere in Britain, viz.;—

Saxifraga umbrosa.

Three of the local species are not known to grow in any of the eastern counties, either to the north or south of Yorkshire, viz. ;—

Actæa spicata Asarum europœum Lastrea rigida.

Eighty species are not known with certainty to grow in any of the eastern counties *northward* of Yorkshire; that is to say, they are supposed to find their *boreal* limit in the county, viz;—

Clematis Vitalba Anemone Pulsatilla Meconopsis cambrica Hutchinsia petræa Lepidium latifolium Draba muralis Cardamine impatiens Barbarea stricta Brassica oleracea Helianthemum canum Drosera intermedia Arenaria tenuifolia Cerastium aquaticum Hypericum elodes Erodium moschatum Medicago maculata - denticulata

Trifolium subterraneum Hippocrepis comosa Vicia bithynica Lathyrus palustris Rosa micrantha Pyrus communis Epilobium roseum Cotyledon Umbilicus Petroselinum segetum Peucedanum palustre Torilis infesta Viscum album Viburnum Lantana Asperula Cynanchica Fedia carinata Dipsacus pilosus Tragopogon porrifolius

Carduus pratensis Filago apiculata Inula Conyza Campanula patula -Rapunculus Wahlenbergia hederacea Monotropa Hypopitys Gentiana Pneumonanthe Chlora perfoliata Polemonium cæruleum Cuscuta europæa -Epithymum Verbascum^{*}Blattaria ----nigrum Veronica triphyllos Antirrhinum Orontium Linaria spuria Elatine repens Orobanche minor Teucrium Scordium Leonurus Cardiaca Lamium Galeobdolon

Salicornia radicaus Polygonum mite Rumex pratensis Hippophaë rhamnoides Daphne Mezereum Euphorbia platyphylla Spiranthes autumnalis Ophrys aranifera Convallaria Polygonatum Stratiotes aloides Acorus Calamus Cyperus fuscus Eriophorum gracile Carex elongata -axillaris -divisa -divulsa -strigosa -digitata Apera Spica-venti Arundo Calamagrostis Brachypodium pinnatum Lastrea Spinulosa

Fifty species are not known to grow in any of the eastern counties *southward* of Yorkshire; that is to say, they are supposed to find their *austral* limit in the county, viz ;—

Thalictrum alpinum - flexuosum Dryas octopetala Potentilla fruticosa - alpestris Alchemilla alpina Epilobium alsinifolium Sedum Rhodiola -villosum Saxifraga stellaris Hirculus aizoides — oppositifolia Cornus suecica Meum athamanticum Peucedanum Ostruthium Galium boreale Crepis succisæfolia Hieracium Lawsoni – iricum - pallidum gothicum prenanthoides crocatum Arbutus Uva-ursi

Pyrola secunda Gentiana verna Bartsia alpina Melampyrum sylvaticum Orobanche rubra Myosotis alpestris Primula farinosa Trientalis europœa Polygonum viviparum Rumex aquaticus Salex nigricans phylicifolia herbacea Habenaria albida Cypripedium Calceolus Allium Scorodoprasum Tofieldia palustris Elyna caricina Carex pauciflora - capillaris Sesleria cœrulea Poa alpina Aspidium Lonchitis Equisetum umbrosum. -variegatum

Each of the remaining 863 species is more or less generally diffused both to the north and south of Yorkshire.

AN OUTLINE OF THE BEARINGS

OF THE

PHYSICAL GEOGRAPHY OF THE COUNTY

UPON ITS VEGETATION.

The superficial area of the county is stated at 5836 square miles. That of the whole of Britain is about 90300 square miles, and yet we have seen that within the limits of Yorkshire, three out of every four vascular species which the island produces have been ascertained to occur. If, however, the range of climate and physical character embraced within the area of the county was less extensive, the number of species which it furnishes would be decreased in proportion. As the natural result of its varied structure and the varied elevation of different parts of its surface, in its flora, groups of plants of austral and alpine distribution, with the various intermediate gradations, meet and mingle together. The broad and fertile central vale and its ramifications, where the annual temperature is the normal effect of latitude, and does not differ materially from that of a considerable part of the midland counties of England, afford a flora comparatively luxuriant in species, typically southern, and essentially English in its characteristic features. Amongst the wide extent of the broad ranges of barren moorlands, where the climate from the elevation of the surface corresponds with that of the lowland provinces of Scotland, a vegetation of a more northern stamp finds supplied the suitable conditions for its existence. Whilst round the elevated peaks of the great central ridge of the island, cluster those more hardy and arctic species (supposed to be the vestiges of the flora of the pre-glacial epoch) which find in Britain their head quarters amongst the Grampians of Perth ,and Forfar, and Aberdeen.

The author of the "Cybele Britannica" has considered the surface of Britain as subdivided into two climatic regions.* The boundary between

* Vide "Cybele Britannica," vol. i. pp. 19-43.

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these is marked by the line of the limit above which grain cannot be cultivated: or when this test is not easy of application, by the line of cessation of the common brake, (Pteris aquilina,) which is generally diffused throughout the whole extent of the island; but only grows where cultivation is practicable. The lower of these divisions possesses a mean annual temperature, ranging from 52 to about 42 degrees. It comprises a much larger extent of surface than the upper, but its conditions are considerably modified by the operations of agriculture and the influence of man. It is therefore designated the region of cultivation or Agrarian region. The upper division possesses a range of mean annual temperature from 42 to about 32 degrees, and remains nearly in its natural state. It includes that portion of the surface of the Scotch Highlands which rises above 450 or 500 yards in elevation above the level of the sea: and of the English and Welsh mountains above about 600 yards. Its characteristic flora bears a strong analogy to that of the north of Europe, and it is therefore distinguished as the Arctic region.

In order to supply a means of registering the vertical distribution of species, the two climatic regions are each subdivided into three zones. Each of these zones has a range of about three degrees of mean annual temperature, but the extent of surface which they severally embrace is necessarily very unequal. Each is characterised by its peculiar flora, and as an aid to their recognition in practice we may regard each as bounded by the line of limit of some conspicuous species. The author of the "Cybele" furnishes the following table.

II.—ARCTIC REGION.

Name.					Characteristic Species.
6. Superarctic zone					Salix herbacea without Calluna
5. Midarctic zone					Calluna vulgaris without Erica
4. Inferarctic zone	•	•	•	•	Erica Tetralix without Pteris.

I.-AGRARIAN REGION.

Name.			Characteristic Species.				
3.	Superagrarian zone				Pteris aquilina without Rhamnus		
2.	Midagrarian zone				Rhamnus catharticus without Clematis		
1.	Inferagrarian zone				Clematis, Rubia, Cyperus longus.		

The area of Yorkshire is embraced within the second, third, and fourth

of these climatic zones. The midagrarian, or with reference to the county only, the lower zone, comprises all that portion of the surface which does not attain an elevation of about 300 yards. The inferarctic or upper zone includes those mountain summits which exceed about 600 yards; and the superagrarian or middle zone, the intermediate space.

If we wish to make more exact and accurate comparisons of the vertical distribution of species than can be supplied by tracing their zonal range, it is easy to estimate, with sufficient accuracy for practical purposes, the isotherms or lines of mean annual temperature, within which their localities are respectively circumscribed. The influence of latitude in causing a variation between the climate of different parts of the county is so slight as scarcely to deserve consideration. The mean annual temperature of the whole coast line may therefore be stated in round numbers at 49 degrees, though in reality, it is rather less. That of all inland situations which are not much above the coast level, including the whole of the great central vale, may be taken at 48 degrees For the remainder of the surface, we shall not fall far short of accuracy in adopting the rule first proposed by Dalton of deducting one degree of mean annual temperature for every hundred yards of elevation. The summit of Micklefell, the highest mountain in Yorkshire, attains an elevation of 2580 feet. So that according to the rule just stated, its average annual temperature will be rather less than 40 degrees; and consequently the range embraced within the limits of the county, about nine degrees.

Although several districts have been only very partially explored, it is not probable that the relative proportion which the Yorkshire flora bears to that of the whole of Britain will be materially increased as knowledge advances: seeing that most of the species have been found which might be expected to occur, from their distribution beyond the limits of the county. But although such is the case, we can only estimate very imperfectly from the data which have been accumulated, the manner in which each species is diffused over the surface, and the proportion which each bears to the general mass of the vegetation.

In order to obtain a means of judging respecting the horizontal distribution over the island, of the species which make up the British flora, and reducing to accurate expression through the medium of a numerical formula the knowledge which has been and may be obtained respecting each,

the author of the "Cybele" has considered the surface of Britain as subdivided into eighteen botanical provinces,* usually formed by grouping together several counties which comprise the basin of a river, or possess some other physical peculiarity in common. Amongst the counties of Britain, Yorkshire, alone, is considered sufficiently extensive in area, and natural in its boundaries, to form a province of itself; and is called the tenth or Humber province. For the sake of attaining greater accuracy, more recently he has mapped out the island into thirty-eight sub-provinces; + of these, Yorkshire contains two, East Humber and West Humber, which are bounded from each other by a line drawn from the southern bend of the Tees to the mouth of the Humber along the course of the Wiske, the Swale, and the Ouse. These again he has further sub-divided into vicecounties, the total number of which is 112. The East Humber subprovince contains two of these vice-counties, South-east Yorkshire and North-east Yorkshire, the boundary between which is the same as that between the east and north ridings. The West Humber sub-province contains three vice-counties, South-west Yorkshire, Mid-west Yorkshire, and North-west Yorkshire. The boundary between the two former of these extends from the Ouse, along the course of the Aire, to the neighbourhood of Skipton, and then across to Lancashire: that between the two latter is a line drawn along the summit of drainage between the Ure and the Swale.

But if our special object be to estimate, not the distribution of the flora of the whole island, but of that of the county only: if we wish to trace each species throughout the extent of its surface more accurately than could be done by ascertaining in how many of the sub-provinces it occurs; and to obtain a closer idea of the area of each, and the proportion which it bears to the general mass of the vegetation, it will be needful to descend a step lower into detail. With slight exception, not only the county, but each of the five sub-provinces is bounded by natural limits. They may therefore be readily subdivided into natural botanical districts, each of which will comprise the whole or some definite portion of the basin of a river, and can therefore be very easily recognised in practice. The object of the present sketch is to point out how the geological structure and physical aspect of the county are mirrored and reflected in its vegetation,

* Vide "Cybele Britannica," vol. i. pp. 9-19. + Ibid. vol. iii. pp. 524-528.

and to suggest the means to be employed in tracing the links of connection and relations between them. For this purpose it will not be needful here to enter into the details of the geography and condition of each of the different river basins which the county includes. My own attention, from residing in the midst of it, has been more especially directed to the north riding; the surface of which embraces almost as wide a range of variation as that of the whole county, and has been ascertained to produce all but 46 species which the county affords. I have therefore selected it for illustration, and will proceed to give a brief and cursory account of the prominent features of the respective districts which it comprises. I would refer those who may wish to study the physical geography of the county to the various works on the subject by Professor Phillips, especially his latest, "The Rivers, Mountains, and Seacoast of Yorkshire," from which many of the facts here brought under consideration have been obtained.

As has been already explained in the Flora, the north riding consists of a broad central vale, running north and south, between two groups of hills, the eastern range of which has also a smaller depression both on the north and south. Of these, the western series is the most extensive and attains the highest elevation. The general slope of the surface is from west to east, and consequently the general flow of the river is in the same direction. With the exception of a small tract of greenstone at the north-western corner of the county, and a few inconsiderable veins and dikes of plutonic origin, the mineral masses of the surface are all sedimentary, and have been deposited during the primary and secondary periods. In order of succession they are thus arranged from west to east; each usually sloping more considerably in that direction than the whole mass.

NAMES.	Localities.
I. Primary period. A. CARBONIFEROUS SERIES. 1. Scar limestone	Hawes, Muker, Reeth.
3. Millstone grit	Gretadale, Balderdale, Masham.
B. PERMIAN SERIES. 4. Magnesian limestone	Bedale, Thorp-arch, Ripon.
II. Secondary period. C. TRIAS SERIES.	
5. New Red Sandstone	York, Thirsk, Northallerton.

D. LIAS SERIES. 6. Lias	Stokesley, Guisbro', Easingwold,
E. Oolite Series.	
7. Bath Oolite	Whitby, Scarbro', and the summit of the eastern moorlands.
8. Oxford Oolite	Helmslev, Malton.
9. Kimmeridge clay	Pickering, Kirby Moorside.

These strata have been many times elevated and depressed during the period of their deposition: and a considerable portion of them must even have been submerged since various members of the flora and fauna of the county have occupied the regions which they now inhabit. The prominent physical features which we observe have been gradually developed through the long succession of ages by the continual action of water upon the surface. So that the strata formed of softer materials, the sandstones and aluminaceous shales have wasted away beneath its abrading influence, and now form the central vale and lower levels of the county : whilst the oolites and still harder gritstones have better withstood its power, and now tower upwards as ranges of hills and moorlands of greater or lesser elevation, margined by "grey cliffs and winding scars."

As may be seen at a glance by reference to the map, the three vicecounties of the "Cybele Britannica" which are wholly or partially included in the north riding, may be conveniently subdivided into eight districts, founded upon the river drainage. Of these, North-east Yorkshire will comprise five, North-west Yorkshire two, and Mid-west Yorkshire one-If we also include the Ainsty, the vice-counties will contain respectively five, two, and two districts, as below:—

NAME OF DISTRICT. A VICE-COUNTY NO. I. North-east York.	REA IN SQUARE M	ILES.
District 1. Ouse and Foss	133	
2. East Swale	$\dots 165$	
3. Derwent	514	
4. Esk	235	
5. East Tees	147	
VICE-COUNTY NO. II. Mid-west York.		
6. Nidd and Wharf (Ainsty)	84	
7. Ure		
	343	
VICE-COUNTY NO. III. North-west York.		
8. West Swale	364	
9. West Tees	186	
	550	
	2087	

Before proceeding to characterise these districts, it may be desirable to dwell for a short time on the general features of the vegetation of the three climatic zones.

As before stated, the lower, or with reference to the whole of Britain, the midagrarian zone may be considered to comprise all that portion of the surface which does not attain an elevation above the sea of about 300 vards. Consequently, it includes the whole of the central vale: on the east, the vales of Cleveland and Pickering and the wide extent of the surface of the oolitic moorlands, with the exception of the summit of Roseberry Topping and a few other detached peaks; and also a broad branched serpentine strip which forms the watershed between the rivers Derwent, Swale, Leven, and Esk: and on the west, narrow at first, but widening as the rivers descend, the valley of the Tees to the neighbourhood of Holwick and Mickleton, Swaledale to the vicinity of Muker, and Wensleydale to the junction of the two forks of the Ure near Hawes. The great body of its vegetation is made up of the species enumerated throughout the work as belonging to the British type of distribution : but these mostly ascend also into one or both of the upper zones. But those which make up the three austral types (i. e. English, Germanic, and Atlantic,) seldom pass up above the limits of the present zone. Some of them are comparatively plentiful, and are probably distributed at intervals throughout almost the whole extent of its surface. As examples of this class, I may mention Cornus sanguinea, Pulicaria dysenterica, Ranunculus arvensis, Bryonia dioica, Rhamnus catharticus, Scrophularia aquatica, Acer campestre, Convolvulus sepium, Tamus communis. But others, such as most of the species previously mentioned as finding their boreal limit in the county, are much more restricted in their range. The flora of this zone is also characterised by the comparitive rarity within its precincts of many of the more or less boreal species, as Trientalis europæa, Primula farinosa, Listera cordata, Empetrum nigrum, Habenaria albida, Gnaphalium dioicum.

The *middle*, or with reference to the whole of Britain, the *superagrarian* zone includes, on the east, the detached peaks before mentioned, and the broad branched serpentine strip forming the watershed between the rivers Derwent, Swale, Leven, and Esk: and on the other side of the great central vale, that considerable portion of the western

part of the county, and the parallel ranges of hills between Teesdale, Swaledale, Wensleydale, and Nidderdale, which lies above an elevation of about three hundred yards, and below the limits of possible cultivation. Its surface consists principally of broad bleak moorlands, sparingly interspersed with cultivated land, and consequently there is not nearly so much variety in situation as in the zone below, and the number of species which make up its flora is comparatively small. The bulk of its vegetation is composed of species which would naturally be equally plentiful in the lower zone, but which have there been considerably diminished in quantity by drainage, and the operations of agriculture : as Calluna vulgaris, Erica Tetralix and cinerea, Nardus stricta, Juncus squarrosus, Scirpus cæspitosus. The species which make up the colonist class of citizenship, many of which are plentiful in the lower zone, are here comparatively rare, whilst the aliens are almost altogether wanting. Some of the species which belong to the two boreal types of distribution (i. e. the Highland and Scottish) appear in the riding to be peculiar to this zone, but they are mostly of very limited diffusion. Of this class Saxifraga Hirculus, Hieracium iricum and crocatum, Meum athamanticum, Arbutus Uva ursi, Allosorus crispus, Equisetum umbrosum and variegatum, are examples. Other species, as Draba incana, Rubus Chamæmorus, Saxifraga aizoides and stellaris, Bartsia alpina, Gentiana verna, and Carex capillaris, are common to this and the upper zone.

The upper or inferarctic zone comprises those mountain summits, about twenty in number, near the western boundary of the county, which rise above the limits of possible cultivation. Marked upon the map, the portions of surface which it embraces appear to consist of two groups: one of them a horse-shoe shaped tract encircling the head of Swaledale, with several minor circular patches in its vicinity: the other a single oblong streak between Lunedale and Teesdale. The flora of this zone is - made up of only a very small number of species, and is best characterised by the absence of a large class of plants which are common in both the zones of the Agrarian region, including all the more conspicuous trees and shrubs, and the weeds which attend upon cultivation. A few, however, of the species belonging to the Highland type of distribution, appear (in the riding) to be peculiar to it. Amongst these are Myosotis alpestris, (the most thoroughly boreal species which has been found in Yorkshire,) Thalictrum alpinum, Helianthemum canum, Dryas octopetala, Epilobium alsinifolium, and Tofieldia palustris.

Reversing the order of the districts we begin with-

No. IX.-WEST TEES.

DRAINAGE .- Taking its rise on the slope of Cross fell in Cumberland, augmented by the drainage of the dreary moors of Milburn and Harthorpe, after spreading out into a tarn-like expansion, called the Weal, and thus forming, for several miles, the boundary between Westmoreland and Durham, the Tees introduces itself to Yorkshire, thundering over an irregular series of basaltic cliffs, two hundred feet in height, called the Caldron Snout; and forms for the remainder of its course the northern limit of the county. Below the waterfall, it is joined by the Maizebeck, and flows towards the east in a broad rocky channel, margined on the south by the scars of Cronkley, and on the north by Falcon Clints: and after a few miles, it falls over a perpendicular cliff of greenstone 69 feet in height, forming the High Force. Thence descending rapidly in a more confined bed, it runs through a rich and well known botanical district, under the bridges of Lower Cronkley and Wince, and advances for about the next twelve miles in a south-eastern direction. Till its junction with the Lune, opposite Middleton, a range of cliffs, gradually lessening in height, runs parallel with it at some distance. Afterwards, the hills recede and decrease in altitude: and the river flows past the villages of Romaldkirk, Cotherstone, and Lartington, and is joined at intervals by the parallel streams which drain respectively Balderdale, Grizedale, and Deepdale. Below Barnard Castle it receives the Greta from the forest of Stainmoor; and thence, entering the central vale, it flows with many sinuosities towards the east, the district which it drains being considerably narrowed in breadth.

SURFACE.—From the summit of Micklefell, 2580 feet in altitude, the forest of Lune slopes gradually towards the east to Cronkley Scarrs; and is principally included in the arctic region. The moors to the south are considerably less elevated, and the highest peaks do not exceed 1360 and 1448 feet. The surface ascends to the line of watershed between Gretadale and Arkendale, where Hoove and Baxton Nab nearly attain the upper limit of the middle zone. The lower zone includes the whole of the eastern portion of the district, the valley of the Tees till above its junction with the Lune, and the lower levels of the subordinate dales.

STRUCTURE.-The course of the Tees from the Caldron Snout to the High Force runs over a mass of basalt, called the Whin Sill, which ascends Maizebeck for about two miles, and attains an elevation of about 1800 feet, in the almost inaccessible cliffs of Cronkley. By contact with the plutonic rock, the narrow ridge of scar limestone which borders it, the oldest in our series of deposits, is in a great measure metamorphosed into a coarsely granular "sugar limestone," which produces several plants not found elsewhere in the riding. Next in succession, over Micklefell and along the western margin of the county, extend Yoredale limestones, which also cover a small district south of the junction of the Greta with the Tees. Whilst on the east, the broad moors which surround the dales of of the Balder and Greta, and extend to the summit of drainage on the south, consist of millstone grit. In the neighbourhood of Croft, are traces of Permian deposits, with their botanical concomitant in Anemone Pulsatilla: and from thence to the boundary of the district stretches the new red sandstone of the central vale.

No. VIII.-WEST SWALE.

DRAINAGE.—The Swale takes its rise by numerous branches amongst the lofty series of undulated summits which form the boundary between Yorkshire and Westmoreland. From Hollow Mill-cross the main branch flows due east for about five miles, receiving numerous inconsiderable feeders both from the north and the south. Opposite the celebrated Auld Gang lead mines it curves towards the south, the valley widening to encircle the curious conical mound of Keasdon, 1639 feet in altitude. Southward of this, below the small town of Muker, it again advances due east, and maintains that direction till Swaledale loses itself in the great central vale. Margined by the scars of the gradually descending summits, at Reeth it receives the considerable stream which rises near Baxton Nab and drains Arkengarthdale. Below Grinton the dale widens and becomes more highly populated and cultivated. At Marske the river receives an addition from the moorlands on the north; and after flowing past Richmond it is joined by another branch from Barningham and Dalton. Below Catterick it winds through a more level country, in a south eastern direction. At Leeming it is further augmented by Grimscar Beck, which rises amongst the group of summits a few miles south of Reeth, and flows past Bellerby and Bedale. After its junction with the Wiske, near Sandhutton, the Swale forms the boundary between the eastern and western sub-provinces. The district which it drains on the west becomes much narrower, and does not contain any town of importance. Opposite the mouth of Codbeck is Leckby Carr, the original British station for *Scheuchzeria palustris*. At Myton the Swale unites with the Ure.

SURFACE.—A considerable portion of the watershed of the Swale is included within the arctic region. Between Arkendale and Swaledale, the summits of Rogan's Seat, Watercrag and Pinseat attain respectively an elevation of 2207, 2192, and 2125 feet. Round the head of Swaledale several peaks exceed 2000 feet. Of these, the loftiest is Hugh Seat (2330 feet). Along the summit of drainage between the Swale and the Yore, rise the peaks of Shunnor Fell (2351 feet), the second in altitude of the mountains of north Yorkshire, Lovely Seat (2216 feet), and Bakestone Edge (1983 feet). The remaining portion of the more considerable moorlands, including the upper part of Arkengarthdale and the valley of the Swale above Muker, are comprised in the middle zone. The whole of the eastern part of the district, from Richmond racecourse, on the north side of the river, and Downholme moor, on the south, with the lower levels of the dales, is included in the lower zone.

STRUCTURE.—The principal summits at the head of Swaledale, and the lower levels of the vallies of the Swale and Arkle, are formed from limestones of the Yoredale series. The surface of the more elevated portions of the moorlands sloping gradually towards the east, consists of millstone grit. New red sandstone strata, overlaid with diluvial clays, fill up the eastern part of the district. At Topcliffe the river touches the lias formation.

No. VII.---URE.

DRAINAGE.—Wensleydale is formed by the junction of two branches, Widdale and Cotterdale, which unite below the town of Hawes. The river is supplied by numerous small streamlets, which rise amongst the lofty moors of Mossdale and Abbotside, some of which are diversified by waterfalls of considerable height. During the earlier part of its course it runs in an eastern direction, almost parallel with the Swale, at a distance from it varying from five to seven miles. Opposite the town of Askrigg it receives a considerable stream from Seamer water, which rises amongst the summits of Stake Fell and Yokenthwaite moor. The district which the Ure drains on the north is necessarily very limited, and seldom exceeds three miles in breadth. It includes the town of Leyburn, and the ruins of the castle of Bolton. Below Askrigg are three interesting waterfalls, the largest of which, Millgill Force, is 69 feet in height. There is another, rather lower down, at Aysgarth, after which the river is considerably augmented by the united streams which flow down Bishopdale and Waldendale. Passing beneath the peak of Penhill, (1817 feet) at Middleham, it is joined by the Cover, which rises near to Little Whernside, not far from the head of Nidderdale. At Witton and Jerveaux Abbey it enters the central vale, and flows in a south eastern direction for the remainder of its course. From Masham to its junction with the Swale, it forms the boundary between the north and west ridings.

SURFACE.—As mentioned under the last district, a portion of the watershed between the Swale and the Yore attains the arctic region. At the point of juncture between the north and west ridings, the peaks of Wild Boar Fell, Swarth Fell, Bow Fell, and Sayls, attain or exceed 2200 feet. Between Widdale and Cotterdale, and towards the head of the former dale, and along the summit of drainage between Wensleydale and Kettlewelldale, are several fells of considerable altitude, with lateral ridges between Bishopdale, Coverdale, and Nidderdale. The remainder of the western portion of the district, including the valley of the Ure above Hawes, and the moorlands to Leyburn and Witton, are comprised in the middle zone. The lower zone includes a narrow strip of surface which stretches along the north side of the river to its junction with the Swale, and the less elevated portions of the various dales.

STRUCTURE.—As before mentioned, the watershed between the Swale and the Ure consists of mill-stone grit strata, which also descend to the river at Masham, and form the summit of drainage between Bishopdale and Coverdale. The surface of the remainder of the western portion of the district consists of a series of limestones of earlier date, which have been called "Yoredale limestones," from their abundant development here. A narrow ridge of magnesian limestone borders the millstone grit at Tanfield and Snape. The remainder of the district is included in the great central vale.

No. VI.-NIDD AND WHARFE.

DRAINAGE.—The Ainsty is a highly populated and richly cultivated district, only 82 miles in superficial area, bounded on three sides by the rivers Nidd, Wharfe, and Ouse, and on the west by a line drawn from Colthorpe to Thorpe Arch. The southern portion is drained by a small stream, the two branches of which rise near Wighill and Marston. It flows towards the south-east and falls into the Wharfe, near Bolton Percy. On the north, also, a rivulet rises near Bilton, and falls into the Ouse opposite Overton.

SURFACE.—The surface is very little undulated or elevated; so that no portion of the district rises above the isothermal line of 48 degees. Near Askham are a series of low wooded bogs, which produce in abundance the very local *Carex paradoxa*.

STRUCTURE.—The surface of nearly the whole of the district, like that of the remainder of the great central vale, consists of new red sandstone strata, overlaid with diluvial deposits. A narrow terrace of magnesian limestone bounds them on the west, and margins with cliffs that portion of the rivers.

No. V.-EAST TEES.

DRAINAGE.—From the southern bend of the Tees below Darlington, it flows with many windings in a north-eastern direction, past the towns of Yarm and Stockton, and expands into an estuary at Middlesborough. The ballast hills around its mouth afford an interesting ground for the botanist, as they produce several species which have originally been introduced from the south of England, or the Continent. The marshes in the neighbourhood of Coatham and Redear are intersected by numerous salt water ditches, (locally called stells,) which supply various maritime rarities. The Leven is formed by the union of two branches, which unite near the town of Stokesley. The northern of these rises near Codhill, not far from the source of the Esk, and flows down Kildale, past Stokesley and Ayton; the other on the slope of Burton Head, the loftiest of East Yorkshire summits. The united streams wind towards the west, and soon receive, on the north, the Tame, which rises on Eston Nab and flows past Ormesby and Nunthorpe; and on the south several inconsiderable feeders from the banks of Dromanby and Carlton. At Rudby, the Leven is joined by the stream which drains Scugdale, and turns in a northern direction. After flowing past Hilton and Kirklevington, it enters the Tees below Yarm.

SURFACE.—The summit of the drainage of this district, on the east and south, along Roseberry Topping (1022 feet), Burton Head (1485 feet), Wainstones (1300 feet), Cranimoor (1423 feet), Dromanby Bank and Carlton Bank (1325 feet), is included in the middle zone; but the surface descends abruptly, and the whole of the remainder of the district, though considerably undulated, does not rise above the lower zone.

STRUCTURE.—The southern summits consist of a series of arenaceous and argillaceous deposits, corresponding to the Bath oolite of the south of England. Below these, a broad band of the shales and marlstones of the lias extends from the coast at Marske, along the upper branch of the Leven, to Osmotherley. The north-western portion of the district is included in the great central vale.

No. IV.-ESK.

DRAINAGE.—The Esk is formed by the junction of two streams which unite near Castleton. The northern of these rises in the neighbourhood of Roseberry Topping, not far from the head of the Leven, and flows down Sleddale and Commondale. The southern is supplied by the drainage of Baysdale and the two divisions of Westerdale. From their point of junction, the river flows due east for about fifteen miles, through a well-wooded valley, interesting alike to the botanist and the antiquarian. It is joined by numerous rivulets during its course, each of which takes its name from the dale through which it runs. Between Castleton and the town of Egton are Danbydale, Fryopdale, and Glaisedale on the south, and Stonegate Gill on the north, each three or four miles in length. At Grosmont Bridge the Esk is joined by a branched and more considerable stream from Goathland Dale, upon which is the waterfall called Thomasson's Force. Below Sleights the hills decrease in altitude, and the valley expands after its junction with Iburndale. Near Ruswarp the river curves slightly towards the north, and is joined by Cockmill Beck, and soon afterwards falls into the sea at Whitby. From Robin Hood's Bay to Saltburn, the coast is margined by a series of elevated cliffs, which rise near Boulby to an elevation of 681 feet. Near Staiths is the mouth of a small stream, of which the two principal branches rise on the northern slope of Danby Beacon. Another rivulet rises near Freeburgh Hill, and falls into the sea at Skinningrove. A more considerable beck rises below the recently discovered station for *Cyperus fuscus*, at the head of Sleddale, and flows past Guisborough and Skelton to Saltburn. From Saltburn to Marske the coast is guarded by a series of bold rocky embankments, gradually descending northward into a range of loose sand-hills, firmly bound together by the interlacing roots of *Ammophila arundinacea* and *Triticum junceum*.

SURFACE.—North of the Esk, from Roseberry Topping and Guisborough Moor, the hills slope gradually eastward, so that only the western ridge and a few detached summits attain the middle zone. The watershed on the south of the river declines in the same direction, from Burton Head (1485 feet) along Farndale Head (1412 feet), Shunnor Hoe (1404 feet), and Lilla Cross (1000). The remainder of the surface belongs to the lower zone.

STRUCTURE.—The moorlands, both north and south of the Esk, consist of strata belonging to the Lower Oolite formation. Beneath these extend the shales and ironstones of the lias period, filling up the lower levels of the dales, and composing the whole of the cliffs at many parts of the coast.

No. III.—DERWENT.

DRAINAGE.—South of Robin Hood's Bay, the cliffs which margin the coast attain their highest elevation in High Peak (585 feet), and then descend gradually towards Scarborough and Filey. At Scalby is the mouth of a small stream about five miles in length, which runs past Cloughton and Burniston. The Derwent rises only three miles from the coast, about midway between Whitby and Scarborough. At first, it flows southward, down Harewooddale, Longdale, and the valley of Hackness, during which portion of its course it is joined by numerous inconsiderable feeders. Above Ganton, it receives the Hartford river, which rises in the immediate vicinity of Filey. Afterwards, it turns towards the west, and forms, for the greater part of the remainder of its course, the southern boundary of the riding. At Newstead, it receives a rivulet from Ellerburn and Thornton. Above Malton, it directs its course towards the southwest, and is joined by the Rye-a river which is formed by the union of numerous small streams of considerable length, which rise amongst the moorlands on the North; each of which flows down a dale for the early part of its course, and then descends into the level country of the vale of Pickering. From east to west in order of succession are, the Hole of Horcum, (in which grows Cornus suecica,) Newtondale, Rosedale, Farndale, Brantsdale, Bilsdale, and Snailesworth, with several others The vale of Pickering contains the towns of Helmsley, of lesser extent. Kirby-Moorside, Malton, and Pickering, and the abbeys of Rievaulx and Byland. An eastern branch from Byland and Ampleforth, aud another from Hovingham and Slingsby join the Rye near Brawby. Below Barton, the Derwent receives a further augmentation from the Howardian hills, which rises near Bransby, not far from the head of the Foss. At Helmsley, about five miles north-east of York, it directs it course due south, and entirely leaves the north riding.

SUBFACE.—The summit of drainage along the Hambleton Hills on the west, and the watershed between the Derwent and the Esk, with lateral ridges of surface between several of the dales, are included in the middle zone. The whole of the remainder of this extensive district, sloping towards the east and the south-west, belongs to the lower zone.

STRUCTURE.—The level district called the vale of Pickering, extending from Filey on the sea-coast to Kirby-Moorside and nearly to Helmsley on the west, consists of Kimmeridge clay strata. Round these, embracing the southern portion of the moorlands, and extending through the level country to the Derwent below Malton, occur upper oolitic deposits. The next in succession, occupying the surface of the summit of drainage on the north and west, and a district in the level country to the south of that last mentioned, are oolites of an earlier era. Below these is a narrow band belonging to the lias period, and south of all a small portion of the great central vale.

No. II.-EAST SWALE.

DRAINAGE.—The Wiske rises near Osmotherley, and curves towards the west. Near Cowton it receives the drainage of several small lakes, and directs its course due south; forming, till its junction with the Swale, the boundary between the eastern and western sub-provinces. Below Northallerton it receives a small stream, which flows in a south-western direction from Hartsey and Brompton. The Codbeck is formed by the union of two principal branches. The northern of these rises near Osmotherley, and flows past Sigston and Crosby; the other on the slope of Black Hambleton, flowing past Kepwick and Borrowby. The united streams wind towards the south-east, and receive at Kilvington a rivulet from the vicinity of Feliskirk. Passing Thirsk, below Gristhwaite they are joined by a considerable stream, which flows past Boltby and Sutton-under-Whitstoneeliff, and fall into the Swale below Topeliffe. At Cundall, the Swale receives a rivulet on the east, which rises on the southern slope of Hood Hill, and runs past Coxwold and Sessay.

SURFACE.—The middle zone includes the summit of drainage between the Swale and the Derwent, along Black Hambleton (1246 feet), Kepwick Bank (1148 feet), Boltby Scar (1106 feet), Whitstonecliffe (1078 feet), and Rolston Scar. The surface sinks into the central vale by a single abrupt descent, and the bank is interspersed by several series of irregular cliffs and precipices. Below two of these the lower strata have slipped away, and lakes have been formed at Gormire and above Kirby Knowle. The first of these is about a mile in circumference; the other is more elevated, but considerably smaller. The remainder of the district is all comprised in the lower zone.

STRUCTURE.—The surface of the moorlands consist of oolitic strata in the form of coralline limestone, calcareous gritstones, and clays. Below these extend a series of liassic deposits of varied mineral character, which form a broad belt on the east and south of the oolite, extending from Osmotherley to the neighbourhood of Northallerton and Thirsk, and touching the Swale at Topcliffe. The remainder of the district, like the rest of the central vale, is filled up with new red sandstone strata, overlaid with boulder (post pliocene) diluvium.

33

No. I.-OUSE AND FOSS.

DRAINAGE.—The Swale and Ure unite together at Myton, and wind towards the south-east, the united streams taking the name of Ouse. At Newton the river receives a considerable stream from the north-east, the northern branch of which rises near Raskelf and Easingwold, and the southern in the forest of Galtres. The Foss takes its rise in the undulated district about Gilling and Coxwold, and flows towards the southwest past Stillington and Strensall, joining the Ouse at York.

SURFACE.—Though considerably undulated at its north-eastern corner, none of this district rises above the lower zone.

STRUCTURE.—The greater part of the surface of this district consists of the new red sandstone strata of the central vale. On the east, these are margined by a broad band of lias which contains the town of Easingwold.

At present it will not be needful to describe the drainage districts which make up the east and west ridings, but they may be easily traced upon a good map of the county. A few words in conclusion, respecting the position in which we stand and the path for future exertion, may be not unnecessary. So far as we are enabled to judge from theoretical considerations, the species of Exogens, Endogens, and even of Acrogens, which the county, viewed as a whole, produces, have been ascertained and determined with a tolerably close approximation to completeness: although no doubt a few others, which have not yet been detected within our limits, will be discovered by future research. But we can only form a general, and in consequence, necessarily a vague idea of the proportions in which they unite together to form the general body of the vegetation, and the manner in which is distributed over the surface. Leaving the Thallogens out of consideration, the determination of the Flora of Yorkshire is, to all intents and purposes, accomplished; but the general outline only is traced of the Cybele of the county. The kaleidoscope is formed and the objects supplied; but the mirrors require nicer adjustment before we can obtain symmetrically combined and accurate reflections. The most useful

manner, therefore, in which those who wish to advance our knowledge of the geographical botany can employ themselves, is by tracing the range of the species, both commoner and rarer, which the county affords; *horizontally*, by means of the sub-provinces, vice-counties, and subordinate districts: *vertically*, by using the climatic regions and zones, and the lines of mean annual temperature, as before explained. I shall be glad at any time to receive lists of species observed within any of the districts of superior or inferior grade, especially those which make up the north riding, and facts respecting the zones which they inhabit, or the elevations which they attain. It is only by accumulating details in the first instance, and afterwards analysing and comparing them, that we can ascend to the consideration in a satisfactory manner, and finally arrive at a correct appreciation of general principles and relations.



GENERA AND SPECIES,

ARRANGED ACCORDING TO THE FOURTH EDITION OF

The London Catalogue.

ORDER I. RANUNCULACEÆ.

CLEMATIS.

1. C. VITALBA, Linn.

Denizen.

English.

Perhaps indigenous in hedges near Whitby—Rev. A. Bloxam. Naturalised on the green, Richmond—James Ward. "Really wild," in a hedge at the bottom of a wood on the margin of Guisborough moor, below the Warren, three quarters of a mile S.S.E. of Guisborough, and nearly that from any house—William Mudd, 1854. This species might perhaps be placed in the native category without much risk of error, but has not yet been ascertained to occur in the chalk district of the south-east of Yorkshire.

THALICTRUM.

T. ALPINUM, Linn.
 T. MINUS, Linn.

Native. Native.

Highland.

Scottish.

A glaucous and glandular variety of this species (T. pubescens, Schreb.) is plentiful amongst the sand hills about Coatham, Redcar, and Marske (Vide Phytologist, vol. iv. page 933.) Probably it is the ordinary littoral form of the species.

3.* T. FLEXUOSUM, Reich. Native. Scottish. Malham Cove, near Settle !—J. Dugdale. Bolton Woods, Wharfdale !—G. Lord. Mackershaw Woods, near Ripon—T. Simpson. Bank of the Tees, below Holwick and Wince Bridge, plentiful. Banks of the Wharf, at Thorparch. Probably T. majus of the Flora is wholly, or in greater part, identical with this species.

4. T. FLAVUM, Linn.

Native.

English.

ANEMONE.

5. A. PULSATILLA, Linn. Native. 6. A. NEMOROSA, Linn. Native. 7. A. APENNINA, Linn.

In a wood near Otley, 1843—Miss Garnett. (Phyt. i. 650.) Amongst the pleasure grounds at Clifton Castle, near Bedale—W. Mudd.

8. A. RANUNCULOIDES, Linn. Alien. Naturalised near a garden at Everingham-James Backhouse, Jun.

ADONIS.

9. A. AUTUMNALIS, Linn. Alien. A casual straggler in cornfields and cultivated land; Crathorne, near Yarm, 1852-W. Mudd.

MYOSURUS.

10. M. MINIMUS, Linn. Germanic. Fields S.E. of Welburn-Teesdale. (Bot. Guide, 682.) Hedgebank behind Thirsk church, sparingly, 1848; not found since.

RANUNCULUS.

11. R. AQUATILIS, Linn.

Of the three forms defined in the third edition of Babington's Manual, heterophyllus is common in pools and still waters, trichophyl*lus* in ditches and slowly running streams, and *subpeltatus* less fre-quent in similar situations. A maritime variety which closely resembles R. confusus of Godron, is plentiful in the ditches in Coatham marshes; and a much branched state of the same also occurs, with leaves, flowers, and fruit, only about one-third the usual size. (Vide Phyt. iii. 721 and 933.)

Native.

11.* R. CONFUSUS, Godr. Incognit. The series of forms which the Coatham salt marshes afford, were at first referred to this species (Phyt iii. 721 and 933); but when speci-mens were submitted by Mr. H. C. Watson to Professor Grenier, Godron's coadjutor in the preparation of the "Flore de France," he considered them to belong to R. aquatilis.

English. 11.* R. CIRCINATUS, Sibth. Native. Ponds and ditches, apparently rare; Applegarth, near Richmond-James Ward. In the ditches of Potteric Carr, near Doncaster-O. A. Moore, Rev. W. W. Newbould. (Cyb. Brit. iii. 521.)

Native. English. 11.* R. FLUITANS, Lam. Slow streams and running waters, apparently rare. Skeeby Beck, near Richmond—J. Ward. Plentiful in the Codbeck, below Dalton, near Thirsk, and in the Swale, below Topcliffe and Leckby.

British.

Alien.

Germanic. British.

Native.

13.	R HEDERACEUS, Linn.	Native.	British.
13.*	R. CENOSUS, Guss.	Native.	British.
	R. Lenormandi, Schultz. In sin Ecclesall, near Sheffield—Rev. Damp places at Ilkley and Sal Jun. Grewelthorpe, near Rip	W. W. Newbould. (Cyb. H terthwaite, near Settle—.	Brit. iii. 522.)
14.	R. FICARIA, Linn.	Native.	British.
15.	R. FLAMMULA, Linn.	Native.	British.
16.	R. LINGUA, Linn.	Native.	British.
18.	R. AURICOMUS, Linn.	Native.	British.
19.	R. ACRIS, Linn.	Native.	British.
	A dwarf, pale, single-flowered Wahl.) grows with Helianthen on the sugar limestone, on Cr	num canum and Hippocr	
20.	R. REPENS, Linn.	Native.	British.
21.	R. BULBOSUS, Linn.	Native.	British.
22.	R. HIRSUTUS, Curt.	Native.	$\operatorname{British}$?
	Roadsides and cultivated fields Coatham and the Tees mouth- by, between Sowerby and Dal near Thirsk.	-S. Hailstone. Fields be	ehind Sower-
23.	R. SCELERATUS, Linn.	Native.	British.
	Damp places, and about the m	argin of ponds and ditche	es; frequent.
24.	R. PARVIFLORUS, Linn.	Native.	English.
	Malton fields— <i>Teesdale</i> . B. G and Northallerton !— <i>W. Fogg</i>	. 692. Dry bank betwee <i>itt</i> .	en Romanby
25.	R. ARVENSIS, Linn.	Colonist.	$\mathbf{English}.$
	CAL	THA.	
26.	C. PALUSTRIS, Linn.	Native.	British.
	TROI	LLIUS.	
27.	T. EUROPÆUS, Linn.	Native.	Scottish.
	HELLF	EBORUS.	
29.	H. VIRIDIS, Linn.	Native.	English.
	I place this as a true native, u Vide Bot. Gaz. ii. 93. (Phyt.		r's authority.
30.	H. FŒTIDUS, Linn.	Denizen.	English.
	Perhaps might be considered	a native without much	isk of error.

Perhaps might be considered a native without much risk of error, but rather more open to suspicion than the other species.

40

AQUILEGIA.

21. A. VULGARIS, Linn.

Native.

English.

DELPHINIUM.

32. D. CONSOLIDA, Linn.

Cornfield near Ripon; rare—W. Brunton. B. G. 696. Cornfields near Kippax; rare—J. Atkinson. Balby, near Doncaster!—H. Ecroyd Smith. Crathorn and Langbargh Rigg, near Ayton, 1852!— W. Mudd. Amongst potatoes on Carlton Moor, near Thirsk, 1851! (two specimens only)—Thos. Wood.

Alien.

ACONITUM.

33. A. NAPELLUS, Linn.

Alien.

PÆONIA.

 P. CORALLINA, Retz. Alien. Naturalised with Lamium maculatum, in Kildale Woods, Cleveland! — W. Mudd. Probably on the site of an old garden.

ACTÆA.

35. A. SPICATA, Linn.

ORDER II. NYMPHÆACEÆ.

NYMPHÆA.

36. N. ALBA, Linn.

37. N. LUTEA, Sm.

Native.

Native.

British.

NUPHAR.

British.

ORDER III. PAPAVERACEÆ.

PAPAVER.

39. P. HYBRIDUM, Linn.

Colonist.

English.

.

Native.

Local.

The localities enumerated for this species in the Flora, rest upon the authority of Teesdale and Dr. Wasse. Modern confirmation of its occurrence would be desirable.

40.	P. ARGEMONE, Linn.	Colonist.	British.
41.	P. DUBIUM, Lind.	Colonist.	British.
42.	P. RHŒAS, Linn.	Colonist.	English.
	Var. strigosum, Bonning	occasionally occurs.	Acomb, near York
	O. A. Moore.		

43. P. SOMNIFERUM, Linn. Alien. Ballast heaps and waste ground; a casual straggler from cultiva-Near Kiddale, behind Scarborough Castle, and in a field tion. between Wilsthorpe and Burlington Quay-S. Hailstone. Near Richmond-J. Ward. And other localities.

MECONOPSIS.

44. M. CAMBRICA, Vig.

Native? Papaver, Flora, 8. Probably a true native in the elevated stations, but introduced at Woodend and Londesborough.

CHELIDONIUM.

45. C. MAJUS, Linn.

Denizen.

English.

Atlantic.

GLAUCIUM.

46. G. LUTEUM, Scop.

Native. Waste ground near the sea; apparently rare. Amongst the ballast hills near Middlesborough !- G. Dixon, M. Umpleby. Near the mouth of the Esk, at Whitby !- W. Mudd.

G. PHENICEUM, Crantz. Alien.

An occasional straggler from cultivation. During each of the last three or four years, I have usually noticed a few plants in waste places, in the vicinity of Thirsk, Rievaulx, &c.

ORDER III.* FUMARIACEÆ.

CORYDALIS.

48. C. CLAVICULATA, DC. Fumaria, Flora, page 9. Native.

British.

49. C. LUTEA, DC. Fumaria, Flora, page 9. Alien.

British?

49. C. SOLIDA, Sm.

Alien.

Waste ground, Duckett Ings; and occasionally a troublesome weed in gardens about Thirsk.

FUMARIA.

50. F. CAPREOLATA, Linn.	Native?	British.
51. F. officinalis, Linn.	Native?	British.
53. F. PARVIFLORA, Lam.	Incognit.	

I have no information respecting the occurrence of this species in Yorkshire. F. micrantha is not unlikely to be found.

ORDER IV. CRUCIFERÆ.

CAKILE.

55. C. MARITIMA, Scop.

CRAMBE.

56. C. MARITIMA, Linn.

Native.

Native.

English.

British.

CORONOPUS.

57. C. DIDYMA, Sm.

"The locality of Scarborough, on the authority of Robson, (vide B. G.) will need confirmation before it can be received for a native habitatj"—H. C. Watson (Cyb. Brit. i. 116.) Waste ground, Cargfleet, near Middlesborough, 1852!—W. Mudd. Probably introduced with ballast.

58. C. RUELLII, Gaert. Native. English. Senebiera Coronopus, Flora, 11.

THLASPI.

60. T. ARVENSE, Linn.

- 61. T. PERFOLIATUM, Linn. Incognit. Mentioned in the Botanist's Guide, and other works, as a Yorkshire plant, in mistake for the following species:
- 62. T. ALPESTRE, Linn. Native. Highland? The Settle plant is T. occitanum, Jord., placed in the London Catalogue, and the third edition of Babington's Manual, as a variety of this species.

Alien.

Colonist.

British.

CAPSELLA.

Native.

63. C. BURSA-PASTORIS, DC. Thlaspi, Flora, 10.

HUTCHINSIA.

64. H. PETRÆA, Br. Native. Local. Rocks near Hawes, Wensleydale-O. A. Moore: and above Southerscales, Ingleton fells—R. Clapham.

TEESDALIA.

65. T. NUDICAULIS, Br.

Native.

British.

British.

IBERIS.

66. I. AMARA, Linn. Alien. An occasional straggler from gardens to railway embankments, ballast hills, and similar places.

LEPIDIUM.

Native? 67. L. LATIFOLIUM, Linn. English. Hedgebank between High Worsall and Yarm !- T. J. Foggitt. Further evidence is required before this can be received with complete confidence as a genuine native.

68. L. DRABA, Linn.

Alien. Naturalised in two or three places amongst the Middlesborough ballast hills, 1852.

69. L. SMITHII, Hook. Native. Dry banks and cultivated fields; frequent.

70. L. CAMPESTRE, Br. Native. British. In similar situations; not unfrequent. L. campestre of the Flora also includes the preceding species.

71. L. RUDERALE, Linn.

Naturalised in considerable abundance amongst the Middlesborough ballast hills, 1852. Modern confirmation of the stations recorded in the Flora is desirable, before this can be accepted as a native. At Coatham marshes I could find only Coronopus Ruellii.

L. SATIVUM, Linn. Alien.

River banks and waste places; an occasional straggler from cultivation.

COCHLEARIA.

72. C. OFFICINALIS, Linn.

Native.

British.

British.

Alien.

Native.

Highland.

72d. C. ANGLICA, Linn. Incognit.

On the coast, near Scarborough—Dr. Wasse. On the Castle hill, Scarborough—Theakstone's Guide. Included, also, in Ibbotson's list of the plants of North Yorkshire. The Cochlearia of Scarborough Castle hill, and the dried specimens which I have seen thus labelled, have been ordinary officinalis only; but the true anglica is very likely to occur along the coast line.

ARMORACIA.

73. A. RUSTICANA, Baumg.

72b. C. ALPINA, Bab.

River banks and waste places; not unfrequent. On the Willow Island at Settle, and on the turnpike road between Settle and Ainley House—J. Tatham. Fields about York—O. A. Moore; and Leeds—J. Backhouse, Jun. Banks of the Calder!—H. Ecroyd Smith. Roadside between Thirsk and Newsham!—W. Foggitt. Thoroughly established on the bank of Codbeck, Dalton, near Thirsk.

DRABA.

77. D. INCANA, Linn.	Native.	Highland.
78. D. MURALIS, Linn.	Native.	Local.
79. D. VERNA, Linn.	Native.	British.

CAMELINA.

Alien.

C. DENTATA, Pers. Alien.

In similar situations to the preceding; very rare. Cultivated fields near Castle Howard—*H. Ibbotson.*

ALYSSUM.

82. A. CALYCINUM, Linn.

80. C. SATIVA, Crantz.

In clover fields and on cultivated land; not unfrequent, but without permanence in its localities. Discovered in 1842, at Nether Poppleton, by Mr. Wetherhill, of York, growing with Veronica triphyllos—*R. Spruce.* (Phyt. i. 842.) On fallows with a sandy loam soil at Cantley, near Doncaster—*Rev. G. E. Smith.* (Phyt. ii. 283.) Heslington fields—*J. Backhouse, Jun.*; and Acomb, near York— *O. A. Moore.* Sessay moor, and fields between Sowerby and Dalton ! —*W. Foggitt.* Near Ayton, Cleveland !—*W. Mudd.* Cultivated fields near Gristhwaite, and on Carlton moor, near Thirsk. Between Woodend and Newsham, and other localities. The Rev. G. *E. Smith* (Phyt. loc. cit.) advocates the claim of this species to a place in our indigenous flora.

Alien.

Alien.

CARDAMINE.

84. C. AMARA, Linn.	Native.	British.
85. C. PRATENSIS, Linn.	Native.	British.
86. C. HIRSUTA, Linn.	Native.	British.
86b. C. SYLVATICA, Link.	Native.	British.
Woods and shady thickets	; frequent.	
87. C. IMPATIENS, Linn.	Native.	Local.
C. BELLIDIFOLIA, Linn.	Incognit.	

Arabis hirsuta, on the walls of Ripon Minster, was mistaken by Merrett for this species. Vide W. Brunton, B. G. 702.

ARABIS.

88. A. THALIANA, Linn.

89. A. PETRÆA, Crantz.

The locality mentioned under A. hispida, in the Flora, rests upon the authority of the Rev. W. Hincks and H. Baines. In the absence of recent confirmation or dried specimens, I hesitate to accept it as referring to this species; seeing that it lies considerably beyond its clearly ascertained climatic range in this country.

92. A. HIRSUTA, Br.

TURRITIS.

94. T. GLABRA, Linn.

BARBAREA.

95. B. VULGARIS, Br.

Native. B. arcuata, *Reich.*, doubtless a variety of this species, and a form with adpressed pods, (probably var. intermedia of Buxton's Manchester Flora,) occur occasionally.

96. B. STRICTA, Fries. Local. In similar situations to the preceding, with which it usually grows intermixed; locally plentiful. Clifton Ings, Tilmire, and other places near York; discovered by Mr. Borrer, in 1842. Between Sheffield and Huddersfield, and Weedon and Blisworth; plentifully -W. Borrer. Banks of the Foss near Yearsley bridge, Smeaton, Barnby Dun, banks of the Don above and below Doncaster, and roadside between Methley and Leeds-O. A. Moore. For the name, Fries is the original authority. Vide Summa, i. 146.

97. B. PRÆCOX, Br.

British.

British.

British.

English.

Native.

Alien.

Native.

Native.

Incognit.

Native.

NASTURTIUM.

98 N. OFFICINALE, Br .	Native.	British.
	this becomes N. microphyllur curiant than ordinary, N. siif	

99.	N. TERRESTRE,	Br.	Native.	British.
100.	N. SYLVESTRE,	Br.	Native.	$\mathbf{English}.$
101.	N. AMPHIBIUM,	Br.	Native.	English.

SISYMBRIUM.

102. S. OFFICINALE, Scop.	Native.	British.
104. S. SOPHIA, Linn.	Native.	British.

Waste ground near the village of Clapham, 6 miles north of Settle -J. Tatham. Cantley, near Doncaster-Rev. G. E. Smith. Near Great Ouseburn and Brompton-on-Swale-J. Cramond. By the roadside between Flambro' Head and the lighthouse-O. A. Moore. By the side of the old street near Fencote-T. Simpson. Waste ground near Scarbro !- W. Bean. Carthorpe, near Bedale !- M. Hebblethwaite. Amongst the Middlesbro' ballast hills!-W. Mudd, M. Umpleby. Waste ground behind Thirsk church.

ERYSIMUM.

106.	Ε.	CHEIRANTHOIDES, Linn	. Alien.
107.	Е.	ALLIARIA, Linn.	Native.

British.

CHEIRANTHUS.

109. C. CHEIRI, Linn. C. fruticulosus, Flora, 13.

HESPERIS.

112. H. MATRONALIS, Linn.

Bank at Killinghall, and between Millington and Bishops Wilton-H. Wetherhill. Waste ground near Headingley—A. Shipley. Banks of Rye, above Rievaulx—R. Spruee, Jno. H. Phillips. Gargrave, near Skipton—T. Simpson. Field between Mickleton and Holwick, Teesdale, 1852—W. Foggitt. Beside the stream at Lartington, near Barnard Castle, 1851.

BRASSICA.

Denizen. English? 113. B. OLERACEA, Linn. 1 place this as a denizen, in consequence of information received from my friend William Mudd, who collected it to the north of

Alien.

Alien.

Staithes in 1852. He remarks, in reply to my inquiries respecting its condition, that it grows in considerable abundance amongst the coast cliffs, principally in inacessible situations, and that it has quite the appearance of being an indigenous inhabitant of the locality.

Colonist.

47

114. B. CAMPESTRIS, Linn.)

114.* B. RAPA, Linn.

Root slender, produced (B. campestris) or caulescent fleshy (B. Rapa). Cultivated fields and river banks; in company with B. Napus, or in similar situations. Probably we should consider B. Rapa as the cultivated, and B. campestris as the colonist form of this species. *Vide* Koch, Synops. Fl. Germ. p. 55, and Watson, Cyb. Brit. iii. 385.

Colonist.

Native.

115. B. NAPUS, Linn.

SINAPIS.

116. S. ARVENSIS, Linn.

Colonist. 117. S. ALBA, Linn. British. Corners of fields and manure heaps near York-J. Backhouse. Snape mires, Bedale; and near Ayton, Cleveland !-- W. Mudd. Amongst the Middlesbro' ballast hills, 1852. Frequently cultivated.

118. S. NIGRA, Linn. Native. English. River banks, road sides, cultivated fields, and waste places; not unfrequent.

120. S. TENUIFOLIA, Linn. English. Sand hills and waste ground in the vicinity of the sea-coast; fre-quent: occasionally on walls and in dry places inland. In a field between Newby Wiske and Kirby Wiske—W. Foggitt. Near Scar-borough |-W. Bean. Plentiful about Middlesborough, and along the milwary ambaniment to Beder. the railway embankment to Redcar.

RAPHANUS.

123. R. RAPHANISTRUM, Linn.

124. R. MARITIMUS, Smith. Incognit. There can be little doubt that the plant mentioned at page 143 of the Flora, as "frequent in cornfields," is the preceding species.

Colonist.

ORDER V. RESEDACEÆ.

RESEDA.

125. R. LUTEOLA, Linn.

Native.

British.

British.

British.

British.

British.

Denizen.

126. R. LUTEA, <i>Linn</i> .	Native.	Germanic.
127. R. FRUTICULOSA, Linn.	Alien	

ORDER VI. CISTACEÆ.

HELIANTHEMUM.

128. H. VULGARE, Gaertn.	Native.	British.
Cistus Helianthemum, 1	Flora, 15.	
130. H. CANUM, Dun.	Native.	Local.
Cistus marifolius, Flore	<i>i</i> , 15.	

ORDER VII. VIOLACEÆ.

132. V. PALUSTRIS, Linn.	Native.	British.		
133. V. odorata, Linn.	Denizen.	English.		
134. V. HIRTA, Linn.	Native.	English.		
135. V. CANINA (Ger.) Sm.	Native.	British.		
V. sylvatica, Fries. Woods, thickets, and hedge banks; common. The dwarf form (V. flavicornis, Forst, not Sm.) is frequent in drier situations.				
135.* V. FLAVICORNIS, Smith. Native. British.				
V. canina, Linn. Hedge ban unfrequent.	ks and heathy places; p	probably not		
135.* V. STAGNINA, Kit.	Incognit.			
I am informed by my friend moor violet (Flora, page 15) It merits further investigation	may probably belong to			
136. V. TRICOLOR, Linn.	Native.	British.		

ORDER VIII. DROSERACEÆ.

DROSERA.

138. D. ROTUNDIFOLIA, Linn.

Native.

British.

48

139. D. INTERMEDIA, Hayne. Native. English. D. longifolia, Flora, 16. Not nearly so frequent as the preceding, and only to be found in low situations.

Native.

140. D. ANGLICA, Huds.

ORDER IX. POLYGALACEÆ.

POLYGALA.

141. P. VULGARIS, Linn. Native. British. P. oxyptera, Reich., a variety of this species, grows on the banks of the Swale, near Richmond-James Ward ; and in other localities. P. depressa, Wend., is frequent in dry heathy situations. Probably the latter is identical with the Whitby P. amara (Flora, page 143).

141.* P. ULIGINOSA, Reich. Native. Local. Dry heathy ground on Cronkley fell, on the margin of the stream which forms the White Force! Discovered in 1852, by James Backhouse and James Backhouse, Jun. The only known British locality.

ORDER XII. CARYOPHYLLACEÆ.

DIANTHUS.

146. D. ARMERIA, Linn. English. Brightside, Sheffield-Rev. W. W. Newbould fide H. C. Watson in litt. 1854.

D. BARBATUS, Linn. On a marl bank in Studley Woods-W. Brunton, B. G. 690. Planted with D. Caryophyllus (plumarius) in Thorp Arch woods-S. Hailstone. This species possesses very little claim to be considered a wild Yorkshire (or British) plant.

147. D. PLUMARIUS, Linn. Alien. D. Caryophyllus of the Flora is this species.

148. D. CARYOPHYLLUS, Linn. Incognit.

Native. 150. D. DELTOIDES. Linn. British. "D. glaucus is only a pale-flowered variety of D. deltoides. I have a specimen communicated to the Bot. Soc. London, by Mr. W. D. Biden, collected by F. E. D. Biden, at Mamwood, near Leeds"—HC. Watson, in litt. 1854. D

Scottish.

Alien.

Native.

SAPONARIA.

- 151. S. OFFICINALIS, Linn.
 - S. VACCARIA, Linn.

Alien. A few plants were found in a cultivated field near Scarborough !--William Bean.

Denizen.

SILENE.

Native. 153. S. INFLATA, Linn. British. Native. British.

153.* S. MARITIMA, With.

This species, in addition to its elevated localities, grows also in the vicinity of the sea; but either sparingly, or else it has only been noticed in few places, on account of the Yorkshire coast having been explored botanically, as yet, in a very imperfect manner. Coatham marshes, and rocks between Saltburn and Huntcliffe !--W. Mudd.

144. S. OTITES, Smith. Incognit.

Apparently now extinct in the only known locality. Vide Phyt. i. 577.

- Colonist. 155. S. ANGLICA, Linn. English. Cultivated fields and waste places; rare. Fields near Terrington-R. Spruce. Cantley, near Doncaster-Rev. G. E. Smith. In the In the dried up bed of a wear in Luddenden brook, Halifax, (a single plant only.) 1844—S. King. Langwith—C. C. Babington; and Heslington fields, near York!—H. Ecroyd Smith. Carlton moor, near Thirsk.
- 156. S. NUTANS, Linn. Native? Local. Recent confirmation of the locality for this species mentioned in the Flora would be desirable. It rests upon the authority of the Rev. Archdeacon Peirson, J. Atkinson, and S. Hailstone.

157.	S. NOCTIFLORA, Linn.	Colonist.	Germanic.
	S. ARMERIA. Linn.	Alien.	

S. ARMERIA, Linn.

Naturalised plentifully on the embankment of the Northern Counties Union Railway, near Bedale-T. Simpson.

LYCHNIS.

162. L. FLOS-CUCULI, Linn.	Native.	British.
163. L. DIURNA, Scoth.	Native.	British.
164. L. VESPERTINA, Sibth.	Native.	British.
165. L. GITHAGO, Lam.	Colonist.	British.
Agrostemma, Flora, 16.		

MOENCHIA.

166.	M. ERECTA,	Smith.	Native.
	Dry bank	s near R	otherham—L. Langley

English.

English.

50

SAGINA.

167. S. PROCUMBENS, Linn. Native. British 168. S. MARITIMA. Don. Native British. Dry places on the sea coast; rare? On the railway embankment at Coatham, near Redcar, 1852. Coatham marshes; plentiful. 1854. 169. S. APETALA, Hard. Native. English. 169.* S. CILIATA, Fries. Native. English. In similar situations to the preceding; rare. Selby, and Garforth, near Leeds-S. Gibson, fide C. C. Babington, Bot. Gaz. i. 176. 170.* S. SUBULATA, Wimm. Native. British. Spergula, Flora, 19. The locality reported in the Flora rests upon the authority of Teesdale, B. G. 692. It is desirable that the occur-rence of this species in Yorkshire should receive modern confirmation. Native. 171. S. NODOSA, Meyer. British. A glandulose variety (S. glandulosa, Bess.) grows amongst the coast

SPERGULA.

sand hills, at Coatham and Redcar.

172. S. ARVENSIS, Linn.

HONCKENEJA.

173. H. PEPLOIDES, Ehrh. Arenaria, Flora, 19.

SPERGULARIA

British. 174. S. MARINA, Camb. Arenaria, Flora, 20. A plant intermediate in many of its characters between this species and the following, (var. media of the London Catalogue,) occurs on the sea shore in the vicinity of Hull—C. C.Babington; Scarborough !— W. Bean; Middlesborough !— M. Umpleby; and Coatham.

175. S. RUBRA, St. Hil. - Arenaria, Flora, 20

ARENARIA.

Native. 178. A. SERPYLLIFOLIA, Linn. 179. A. TENUIFOLIA, Linn. Native. English. In a stone quarry west of Tadcaster-H. Wetherhill. "The Rev. W. W. Newbould suggests that Salt's station, about Maltby, York-

shire, is likely to be correct"-H. C. Watson. Cyb. Brit. iii. 395.

British.

British

British.

Native.

Native.

Native.

British.

Native.

This locality is also mentioned in Mr. Moore's list of Yorkshire plants; he believes on the authority of the Rev. G. E. Smith. The authorities for the stations quoted in the Flora are respectively, Teesdale, Brunton, and Dalton.

180. A. VERNA, Linn.	Native.	Scottish.
181.* A. ULIGINOSA, Schl.	Incognit.	
Mentioned as a Yorkshire plant locality is on the Durham side	ant, Phyt. ii. 77, but the e of the Tees.	only known
182. A. TRINERVIS, Linn.	Native.	British.
STEL	LARIA.	
184. S. NEMORUM, Linn.	Native.	Scottish.
185. S. MEDIA, $With$.	Native.	British.
186. S. HOLOSTEA, Linn.	Native.	British.
187. S. GLAUCA, With.	Native.	$\mathbf{English}$

188. S. GRAMINEA, Linn. 189. S. ULIGINOSA, Murr.

CERASTIUM.

Native.

Native.

191. C. AQUATICUM, Linn.	Native.	English.
192. C. GLOMERATUM, Thuil.	Native.	British.
C. viscosum, Flora, 20.		
193. C. TRIVIALE, Link.	Native.	British.
C. vulgatum, Flora, 20.		
194. C. SEMIDECANDRUM, Linn.	Native.	British.
194.* C. TETRANDRUM, Curt.	Native.	British.

With reference to the remark at page 142 of the Flora, I may observe, that both this species and the preceding grow in the vicinity of Redcar.

195. C. ARVENSE, Linn.

Native.

Germanic?

British.

British.

ORDER XIII. LINACEÆ.

LINUM.

199. L. USITATISSIMUM, Linn.	Alien.	
200. L. PERENNE, Linn.	Nativé.	Germanic.
201. L. ANGUSTIFOLIUM, Huds.	Alien or Incognit.	

Not unlikely to grow wild in the county, as it occurs plentifully in the vicinity of Yarm !—T. J. Foggitt; but only on the Durham side of the Tees. Yet it is desirable that Mr. Brunton's locality should be verified by modern confirmation. Stragglers from cultivation occur occasionally.

202. L. CATHARTICUM, Linn.

203. R. MILLEGRANA, Smith.

ORDER XIV. MALVACEÆ.

MALVA.

204. M. MOSCHATA, Linn. Native. English. Native. 205. M. SYLVESTRIS, Linn. British. 206. M. ROTUNDIFOLIA, Linn. Native. British.

ALTHÆA.

Incognit.

208. A. OFFICINALIS, Linn.

ORDER XV. TILIACEÆ.

TILIA.

211.	T. PARVIFOLIA, Ehrh.	Alien.
	Hedgerows and plantations;	rare.

212. T. INTERMEDIA, DC. Alien. T. Europæa, Flora, 22.

213. T. GRANDIFOLIA, Ehrh. Alien. Possibly a true native in some of its stations. Woods near Ayton, Cleveland—W. Mudd; and at Kirkleatham, near Redcar.

ORDER XVI. HYPERICACEÆ.

HYPERICUM.

214. H. Androsæmum, Linn.

Native.

Atlantic.

British.

British.

RADIOLA. Native.

Native.

53

215. H. PERFORATUM, Linn.	Native.		British.
216. H. DUBIUM, Leers.	Native.		English.
River banks and ditches	s, not unfrequent.		-
216. H. QUADRANGULUM, Linn.	Native.		British.
218. H. HUMIFUSUM, Linn.	Native.		British.
220. H. PULCHRUM, Linn.	Native.		British.
221. H. HIRSUTUM, Linn.	Native.		British.
222. H. MONTANUM, <i>Linn</i> .	Native.		English.
Lane between Tanfield a Ripon— <i>T. Simpson.</i> I ingly— <i>O. A. Moore.</i> G (Phyt. i. 577). Beckdale dale, near Rievaulx.	Broadsworth wood, ne Hilla-ley's wood, Castle H	ar Done Toward	aster; spar- -H. Ibbotson

223.	H. ELODES, Linn.	Native	Atlantic.
224.	H. CALYCINUM, Linn.	Alien.	

Naturalized in Mulgrave woods, near Whitby !--- W. Mudd.

ORDER XVII. ACERACEÆ.

ACER.

225.	A. CAMPESTRE, Linn.	Native.	English.
226.	A. PSEUDOPLATANUS, Linn.	Alien.	

ORDER XVII. GERANIACEÆ.

ERODIUM.

228. E. CICUTARIUM, Sm .	Native.	Briti	sh.
228.* E. Moschatum, Sm.	Denizen.	Engli	ish.
	of the localities mentioned	in the	Flora
under this species in re	ality refer to the preceding.		

GERANIUM.

G. STRIATUM, Linn. Alien. Naturalized in Aske woods, near Richmond-James Ward. G. Maw.

229. G. PHÆUM, Linn. Alien. Water Fulford, near York—J. Backhouse, Jun. In a meadow at Feizor, near Settle—R. Clapham. Aske woods, near Richmond—

	James Ward. Newton, betwee Swinton, near Masham— $T.S$ Castle. Hedgebank, at Felisk vington to the Thirsk and Nor	<i>impson.</i> About the ruin tirk ; and in a lane leadir	s of Upsal
	G. NODOSUM, Linn.	Alien.	
	Naturalized in a wood at Lon wood at Kirklington, between I An imperfect specimen of this by the late S. Gibson "Wash cated by the late J. E. Bowm annica. <i>Vide</i> Phyt. i. 556, 558.	Bedale and Ripon !— <i>M. H</i> species, or G. macrorhizu erlane, near Halifax," wa an to the author of the G	ebblethwaite. 1m, labelled s communi-
230.	G. SYLVATICUM, Linn.	Native.	Scottish.
231.	G. pratense, Linn.	Native.	British.
232.	G. PYRENAICUM, Linn.	Denizen.	${f English}.$
233.	G. ROTUNDIFOLIUM, Linn.	Incognit.	
	It is desirable that the stati resting upon the authority of to belong to this species befor as a plant of the county, as Y its supposed boreal limit in B	Dalton, should be clearly re it can be admitted with orkshire is considerably n	ascertained confidence
234.	G. PUSILLUM, Linn.	Native.	British.
	Hedgebanks and cultivated to species.	fields; nearly as frequent	as the next
235.	G. MOLLE, Linn.	Native.	British.
236.	G. DISSECTUM, Linn.	Native.	British.
237.	G. COLUMBINUM, Linn.	Native.	English.
238.	G. LUCIDUM, Linn.	Native.	British.
239.	G. ROBERTIANUM, Linn.	Native.	British.
240.	G. SANGUINEUM, Linn.	Native.	British.

ORDER XIX. BALSAMINACEÆ.

IMPATIENS. Alien.

242. I. Noli-me-tangere, Linn.

ORDER XX. OXALIDACEÆ.

OXALIS.

243. O. ACETOSELLA, Linn. Native.

British.

ORDER XXI. CELASTRACEÆ.

EUONYMUS.

245. E. EUROPÆUS, Linn.

S. PINNATA, Linn.

English.

Native. Feizor, near Settle-R. Clapham. Kitscrew wood, Castle Howard-H. Ibbotson. Newton wood, near Ayton; and hedges between Crathorn and Hutton Rudby !- W. Mudd; and other localities.

STAPHYLEA.

Alien.

Naturalized in hedges, at Newton, between Ayton and Guisboro'!-W. Mudd.

ORDER XXII. RHAMNACEÆ.

RHAMNUS.

246. R. CATHARTICUS, Linn.	Native.	English.
247. R. FRANGULA, Linn.	Native.	English.

ORDER XXIII. LEGUMINIFERÆ.

SPARTIUM.

248. S. SCOPARIUM, Linn.

Native.

British.

ULEX.

249.	U. EUROPÆUS. Linn.	Native.	British.
250.	U. NANUS, Forst.	Native.	English.
	mi i i i i i i i i	10111	D'1

The plant which grows at Gatherley moor, near Richmond, is the true nanus.—*T. Simpson, J. Ward.* I have no means of ascertaining which of the two supposed species the Doncaster station produces. One of them grows also on Normond's Moor, near Newton-le-Willows.-W. Mudd.

250b. U. GALLII, Planch. Native. Moors near Barningham !-T. Simpson.

English.

GENISTA.

57

251.	G. TINCTORIA, Linn.	Native.	English.
253.	G. ANGLICA, Linn.	Native.	British.

ONONIS.

254.	O. ARVENSIS, Linn.	Native.	British.
255.	O. ANTIQUORUM, Linn.	Native.	English.
	In similar situations	to the preceding, frequent.	

ANTHYLLIS.

257. A. VULNERARIA, Linn.

MEDICAGO.

258. M. SATIVA, Linn.

259. M. FALCATA, Linn.

Does the locality reported in the Flora really refer to this species? It is needful that it should receive confirmation before it can be accepted with confidence.

Alien.

Incognit.

Native.

260. M. LUPULINA, Linn.

Native. 261 M. MACULATA, Sibth. English. Dry ground, Langbargh Rigg, near Ayton !- W. Mudd. Amongst the Middlesborough ballast hills !--M. Umpleby.

262. M. DENTICULATA, Willd. Native. Germanic. Dry, sandy ground, on the castle hill, at Scarborough; growing in considerable abundance in company with the preceding species.

MELILOTUS.

264. M. OFFICINALIS, Willd.

265. M. VULGARIS, Willd.

Cultivated fields and waste places; an M. leucantha, Flora, 30. occasional visitant. In a clover field, at Kilvington, near Thirsk, 1852.-W. Foggitt. About the railway station, at Thirsk, 1849. Amongst the Middlesborough ballast hills, 1852.

Alien.

TRIGONELLA.

266. T. ORNITHOPODIOIDES, DC.

Trifolium, Flora, 31. Amongst the Middlesborough ballast hills, 1852!-W. Mudd. It is needful that Willisel's Tadcaster station (B. G. 706, Flora, 31) should receive further confirmation, before this species can claim a higher grade of citizenship.

Alien.

Denizen.

English.

British.

British.

Native.

TRIFOLIUM.

Native.	British.
Native.	English.
ton, Cleveland !-John W	ard.
Incognit.	
er field near Ripon.—W	Brunton, B.
Alien.	
ballast hills, 1852 ! W.	Mudd.
Native.	British.
Native.	British.
lers of fields; frequent.	
Native.	British.
Native.	${ m English}?$
Native.	English.
Native.	English.
Native	British.
	British.
	British.
	Native. ton, Cleveland !—John W Incognit. er field near Ripon.—W. Alien. ballast hills, 1852 !—W. Native. Native. lers of fields; frequent. Native. Native. Native. Native. Native.

Not nearly so frequent as the preceding species.

LOTUS.

283. L. CORNICULATUS, Linn.	Native.	British.
<i>L. tenuis</i> , <i>WK.</i> , a slender is frequent in dry places.		ety of this species,
284. L. MAJOR, Scop.	Native.	British.

ASTRAGALUS.

286. A. GLYCYPHYLLOS, Linn.	Native.	British ?
287. A. HYPOGLOTTIS, Linn.	Native.	Germanic.

ORNITHOPUS.

291 O. PERPUSILLUS, Linn. Native. B	British.
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ARTHROLOBIUM.

292. A. EBRACTEATUM, DC. Incognit. Alien. or "According to Mr. Elihu Berry, in Phytologist iii. p. 366, this southern plant has been found in Yorkshire, on the canal bank by the Oakes farm (near Barnsley). Unless there has been some error as to the species, we may presume it an introduced plant there."—H. C. Watson. (Cyb. Brit. iii. 411.)

HIPPOCREPIS.

293. H. COMOSA, Linn.

ONOBRYCHIS.

Native.

294. O. SATIVA, Lam. Native. Hedysarum Onobrychis, Flora, 34.

VICIA.

295. V. OROBUS, DC.

"The county of York was published for it in the New Guide, through an inadvertence; Orobus sylvaticus having been marked in a printed list, accidentally, instead of O. tuberosus. The same locality in that county has, however, been since re-stated on a second authority; but I do not include the locality of Richmond within the area of the species, until it appears that the second announcement is something better than a plagiarism of the former error"—H. C. Watson (Cyb. Brit. i. 315.)

296.	V. SYLVATICA, Linn.	Native.	British.
297.	V. CRACCA, Linn.	Native.	British.
	TT TD TD .	4.74	

V. PSEUDO-CRACCA, Bert.

Naturalised amongst the Middlesborough ballast hills, 1854!-M. Umpleby. It may be distinguished from the preceding species by its larger size, spreading hairs, and unequal calyx-teeth. A native of Italy.

298. V. SATIVA, Linn. Native. British. Of this species, V. sativa (Flora, 33,) is the cultivated, and V angustifolia (Flora, l. c.) the native state.

299. V. LATHYROIDES, Linn. Native. British. Mickley Barrows, near Ripon-T. Simpson. It is intimated in the Cybele Britannica, that the localities mentioned in the Flora under this species require modern confirmation. The true plant still grows at the Acomb stations.

Alien. 300. V. LUTEA, Linn. Naturalised amongst the Middlesborough ballast hills, 1852! - W. Mudd.

Germanic?

English.

Incognit.

Alien.

British.

British.

302. V. BITHYNICA, Linn. Native. English. Modern confirmation of the localities quoted in the Flora under this species would be desirable. Upgang beck, near Whitby, 1852! --William Mudd.

- 303. V. HIRSUTA, Koch. Native. British. Ervum, Flora, 32. Hedgebanks and cultivated fields; frequent.
- 304. V. TETRASPERMA, Koch. Native. English. Ervum, Flora, 33.

LATHYRUS.

- 305. L. Арнаса, Linn. Alien or Incognit. Malton fields—Teesdale. Cornfields at Monckton, near Ripon—W. Brunton, B. G. 705. I am not aware that this species has been in Yorkshire more recently.
- 306. L. NISSOLIA, *Linn.* Incognit. Near Sigglesthorne, in Holderness—*Mrs. Wharton*, B. G. 705.
- 307. L. HIRSUTUS, *Linn.* Incognit. The locality mentioned in the Flora under this species is probably erroneous.

308. L. PRATENSIS, Linn.Native.British.309. L. PALUSTRIS, Linn.Native.Local.

- Near Leeds—*Rev. W. Wood.* Near Hull—*P. W. Watson*, B. G. 705. Still found in Heslington fields.
- 310. L. SYLVESTRIS, *Linn.* Native. English.
 Banks of the Esk, Ruswarp, near Whitby !-- W. Mudd.
 L. LATIFOLIUS, *Linn.* Alien.

OROBUS.

Native.

312. O. TUBEROSUS, Linn.

301. V. SEPIUM, Linn.

ORDER XXIV. ROSACEÆ.

PRUNUS.

314. P. SPINOSA, Linn. Native. British. P. domestica, Flora, 34. P. spinosa and institia, Flora, 35. The three Linnean supposed species appear to be connected by gradual intermediate stages of transition.

315. P. PADUS, Linn.	Native.	British?
316. P. AVIUM, Linn.	Denizen.	$\operatorname{British}$?
P. Cerasus, Flora, 33.		

SPIRÆA.

317.	S. ULMARIA, Linn.	Native.	British.
318.	S. FILIPENDULA, Linn.	Native.	$\mathbf{English}?$
319.	S. SALICIFOLIA, Linn.	Alien.	

DRYAS.

320. D. OCTOPETALA, Linn.

Native.

Highland.

British.

GEUM.

Native. 321. G. URBANUM, Linn. G. intermedium, Ehrh. appears to be a fertile hybrid between urbarather than a distinct species. (Vide Phyt. iii. 737.)

223. G. RIVALE, Linn.

323. A. EUPATORIA, Linn.

AGRIMONIA.

Native.

Native.

POTENTILLA. Native. Local. 325. P. FRUTICOSA, Linn. It is desirable that the locality near Doncaster should receive modern verification. Native. British. 327. P. ANSERINA, Linn. 328. P. ARGENTEA, Linn. Native. English. About a mile from Spofforth, upon a low rock in a field by the side of the road leading to Harrogate—H. Wetherhill. Frequent about Cantley, near Doncaster—Rev. G. E. Smith. British. 329. P. VERNA, Linn Native. About Kippax and Ledstone Park, abundantly—Rev. W. Wood. Rocky woods at Castle Howard and Hovingham—Teesdale. Near Carr End, Wensleydale-Curtis, B. G., 695.

330. P. Alpestris, Hall.	Native.	Highland.
331. P. REPTANS, Linn.	Native.	British.
332. P. TORMENTILLA, Schk.	Native.	British.
Tormentilla officinalis, Flo	ra, 37.	

61

British.

British.

b. NEMORALIS, Nestl. T. reptans, Flora, 27. 333. P. FRAGARIASTRUM, Ehrh. Native. British.

COMARUM.

Native.

Native.

334. C. PALUSTRE, Linn.

FRAGARIA.

335. F. VESCA, Linn.

336. F. ELATIOR, *Ehrh.* Alien or Incognit.
I am afraid that the localities mentioned under this species in the Flora (*vide* Cyb. Brit. iii. 419) refer in part to casual naturalisations of the cultivated strawberry, and in part to the tall sylvestral form of the preceding species. It is the latter that is "frequent in Teesdale."

RUBUS.

337. R. CHAMÆMORUS, Linn.	Native.	Highland.
338. R. SAXATILIS, Linn.	Native.	Scottish.
339. R, IDÆUS, Linn.	Native.	British.
340. R. fruticosus, Linn.*	Native.	British.

3. R. SUBERECTUS, And.

Boggy wood and heathy situations; rare. Potichar bank wood, Castle Howard—*H. Ibbotson.* Near the high fish-pond, Kildale, Cleveland !—*W. Mudd.*

- R. PLICATUS, W. and N. Langwith lane, Askham bogs, and other places near York. Locker, Snailesworth.
- 7. R. NITIDUS, *Bell Salt*, *Bab*! not *W. and N.* R. LINDLEIANUS, *Lees*! Hedges, thickets, and woods; frequent.

* The peculiar difficulties which attend the study of the fruticose brambles have deterred nearly all resident botanists from attempting to determine the forms which have fallen under their notice; and so many alterations in nomenclature have been rendered needful by advancing knowledge within the last few years, that it would be unsafe to rely with confidence upon most of the few localities which have been reported. The accompanying list, therefore, is scarcely more than a resumé of the specimens preserved in my own herbarium. The idea of comparitive rarity and frequency is necessarily formed alone from the district which has been examined, the limits and extent of which may be gathered with tolerable accuracy from a consideration of the stations quoted. In fixing the names, I have been guided less by the verbal descriptions of authors than by an extensive collection of dried specimens, mostly authenticated or furnished by those botanists who have studied the genus most successfully in this country.

British.

British.

8. R. AFFINIS, W. and N., Leight. (Phyt. iii. 75), Bab. Man. 3! Lees, (Phyt. iv. 824)!

In similar situations; less frequent. Abundant in hedges about Horton and Ravenfield—Rev. A. Bloxam (Phyt. iii. 325). Hedges between Thirsk and the railway station. Leckby, near Topcliffe. Thickets at Thorpfield, near Thirsk; plentiful. Banks of Gormire, and other places on the edge of the moorlands. Woods about Guisborough Spa. Langwith lane, near York.

9. R. LATIFOLIUS, Bab. Man. 3!

Hedges between Thirsk and Thorpfield, and other localities. I believe this to be a dilated form of R. corylifolius, *(vide Phyt. iv. 968,)* but possibly the Scotch plants may be different.

12. R. RHAMNIFOLIUS, W. and N., Bab!

Hedges and thickets, especially in moory situations; common. This includes R. cordifolius and R. rhamnifolius of the "Rubi Germanici." The former is most frequent in Yorkshire.

14. R. THYRSOIDEUS, Wimm., Bab. Man. 3! R. MACROACANTHUS, W. and N., Blox!

In the lane behind Sowerby, near Thirsk, and between Thorpfield and Topcliffe; sparingly.

15. R. DISCOLOR, W. and N.

Hedges and thickets everywhere; plentiful.

- R. LEUCOSTACHYS, Sm., Bab. Man. 3! R. LEIGHTONIANUS, Bab. Man. 2! Woods and hedges; frequent.
- 17. R. CARPINIFOLIUS, W. and N., Bab! Lees! Blox! In similar situations; rare? Horton cliff, between Rotherham and and Doncaster—Rev. A. Bloxam (Phyt. iii. 325). Woods on the edge of the Cleveland moorlands, Guisborough! Airyholme! and Battersby!—W. Mudd.
- 18. R. VILLICAULIS, W. and N. Bab. Man. 3!

In similar situations; rare? Hedges near the Westhouse, Kildale! Langbargh Rigg! and Newton Wood, near Ayton!—*W. Mudd.* Woods about Guisborough Spa. Thickets on the sea-shore, between Redcar and Marske. Dr. Bell Salter (Bot. Gaz. ii. 18) unites together, under the name of R. RHAMNIFOLIUS, species 7, 8, 12, 18, of Babington.

19. R. MUCRONATUS, Blox! Bab. Man. 3!

In similar situations; perhaps not unfrequent. Horton Cliff, near Doncaster (sub nom. R. sylvaticus)—*Rev. A. Bloxam* (Phyt. iii. 326). Newton Wood, and Langbargh Rigg, near Ayton!—*W. Mudd.* Hedges behind Sowerby, near Thirsk. Woods between Sowerby and Dalton. Hedges at Thorpfield, near Thirsk. Thickets between Laskill and Hawnby, Bilsdale.

21. R. MACROPHYLLUS, W. and N? Bab. R. AMPLIFICATUS, Lees !

In similar situations; rare? Horton Cliff, near Doncaster.—Rev. A. Bloxam (Phyt. iii. 326). Langbargh Rigg; Airyholme Wood, near Ayton! and hedges at Kirkleatham, near Redcar!—*W. Mudd.* If R. macrophyllus and amplificatus are different (*vide* Phyt iv. 823) our plant is the latter.

- R. SPRENGELH, Weihe. R. BORRERI, Bell Salt.
 In similar situations; not unfrequent? Denaby Wood, near Mexborough—Rev. A. Bloxam (Phyt. iii. 25). Near Hebden Bridge— S. Gibson fide E. Lees (Phyt. iv. 925). Airyholme Wood, near Ayton !— W. Mudd. Thickets near the Woodend railway bridge, and woods between Dalton and Sowerby, near Thirsk.
- R. FUSCUS, Weihe. Lees ! Bab. Man. 3 ! Hedges and thickets near Laskill bridge, and elsewhere in Bilsdale:
- 25. R. BABINGTONII, Bell Salt. R. BLOXAMII, Lees ! With the preceding, near Laskill bridge, Bilsdale. Hedges between Westow and Mount St. John, near Thirsk.
- 26. R. HYSTRIX, Weihe. Roche Abbey Wood, near Doncaster—Rev. A. Bloxam (Phyt. iii. 326.)
- 27. R. RADULA, Weihe.

Hedges and thickets; rare. Horton rectory between Rotherham *Rev. A. Bloxam* (Phyt. iii. 326.) In a lane behind Sowerby, near Thirsk.

28. R. RUDIS, Weihe.

In similar situations; frequent. R. Leightonii, *Lees* ! occurs in hedges between Thorpfield and Thirsk; and var. denticulatus. *Bab.* near Sheffield—*Rev. W. W. Newbould fide Bab. Man.*

29. R. PALLIDUS, Weihe.

Woods and hedges; frequent: var. infestus, *Bab. Man.* 3, in thickets by the roadside above Boltby, near Thirsk.

30. R. KOCHLERI, Weihe.

In similar situations; common.

R. FUSCOATER, W. and N? Bab.

Hedges and thickets; frequent. R. TENUIARMATUS, *Lees*! which resembles the weak forms of this species and R. nemorosus, grows in hedges near Thirsk.

33. R. GUNTHERI, Weihe. Bab ! Lees !

Woods and thickets; perhaps not unfrequent. Near Hebden bridge—*E. Lees*, Phyt. iv. 930, *(fide S. Gibson?)* Amongst rocks at the head of Flazendale. Woods on the edge of the moorlands above Gormire, and Hood Hill, near Thirsk. Woods about Guisborough Spa. Hedges between Nunthorpe and Marton, Cleveland.

34. R. HUMIFUSUS, Weihe. Bell Salt! Lees! R. HIRTUS var. FOLIOSUS, Bab. Man. 3!

With the preceding species, amongst the rocks above Gormire, near Thirsk.

25. R. GLANDULOSUS, Bell, Borrer ! Bab ! R. BELLARDI, LEJEUNII, and ROSACEUS, W. and N.

Amongst the rushes, on a light, peaty soil, in a plantation on Terrington Carr, near Castle Howard !-R. Spruce ! H Ibbotson. Woods in Kildale, Cleveland !- William Mudd. Woods between Sowerby and Dalton, near Thirsk.

- 37. R. CORVLIFOLIUS, Sm. Bab ! R. SUBLUSTRIS, Lees ! Hedges and thickets; a common and very variable species. The three forms defined in Babington's Manual all occur.
- 39. R. NEMOROSUS, Hayne., Bab. R. DUMETORUM, W. and N. Lees! In similar situations; frequent.

40. R. CESIUS, Linn.

Woods, hedges, and thickets; frequent. Var. rugosus, Lees! var. agrestis, Leight! not unfrequent.

R. ARCTICUS, Linn. Incognit.

"Several years ago a specimen of the very plant, beyond all doubt, was sent to me as having been gathered on a moor in Yorkshire; but I could neither obtain nor hear of any second specimen, and felt no doubt respecting the origin of that one specimen from a botanic garden in another county."-H. C. Watson (Cyb. Brit. i. 350.)

ROSA.

R. CINNAMONEA, Linn. Incognit. A specimen of this species supposed to have been collected by Salisbury, at "Aketon pasture, near Pontefract," is preserved in the Smithian herbarium.

341. R. SPINOSISSIMA, Linn. Native. British. R. spinosissima and rubella, Flora, 38.

R. RUBELLA, Smith. Incognit.

344. R. INVOLUTA, Smith.

On the Yorkshire side of the Tees, at Wince bridge—S. King, (Phyt. i. 113.) A dwarf glandular Rose, resembling this species, grows upon basaltic rocks at the station specified !-T. J. Foggitt; but it seems to be rather a form of R. Sabini.

345. R. SABINI, Woods.	Native.	$\mathbf{English.}$
R. Sabini and Doniana,		
Tees, at Wince bridge		
Oglethorpe ings, Thor	p Arch-S. Hailston	<i>ie.</i> Coalsgarth, near
Richmond-James War	d. Cliffrig, Ayton,	Cleveland ! W. Mudd.
Thickets at Saltburn, ab	out the mouth of Gu	iisborough beck.
346. R. VILLOSA, Linn.	Native.	British.

347. R. TOMENTOSA, Woods. · Native. British. Е

Incognit.

- 348. R. INODORA, Fries. Native. English. Roadside, near Sedbergh-J. Backhouse, Jun. Sandbeck, near Richmond-J. Ward.
- 349. R. MICRANTHA, Smith. Native. English. Newton wood, near Ayton !- W. Mudd. Thickets about Cleves, near Thirsk, and in Beckdale, near Helmsley.
- 350. R. RUBIGINOSA, Linn. Native. British? Bushy places, near Kirby moorside-W. Mudd Hedges, between Yarm and Worsall!-W. Foggitt. On the Yorkshire side of the Tees, above Gainford-T. Simpson. Banks of Codbeck, near the Dalton railway bridge.
- 351. R. CANINA, Linn. Native. British. R. canina, sarmentacea, Forsteri, and dumetorum, Flora, 39, 40. The three first of these are of frequent occurrence. Does this include a single species only, or more than one? Of the other Roses ranged here in the London Catalogue, R. surculosa, Woods, occurs at Sandbeck, near Richmond, J. Ward; and R. bractescens, Woods, near Croft-J. Ward.
- 352. R. SYSTYLA, Aut. Incognit. In hedges, near Kirby Misperton-R. Spruce. As this supposed species has not been clearly ascertained to grow in Britain, except considerably southward of Yorkshire, it will be safest to reject it, until confirmed, as an inhabitant of the county. (Vide Cyb. Brit. iii. 422.)

353. R. ARVENSIS, Linn.

SANGUISORBA.

Native.

Native.

Native.

354. S. OFFICINALIS, Linn.

POTERIUM.

355. P. SANGUISORBA, Linn.

ALCHEMILLA.

256. A. VULGARIS, Linn.	Native.	British.
357. A. ALPINA, Linn.	Native.	Highland.
Reported by Ray as gro	wing on "mountains	in this county;" but
the only special locality	y which seems to hav	e been ascertained is
Cautley crags, near Sed	.berg—Rev. G. Pinder	, (Cyb. Brit. iii. 423,)
J. Backhouse, Jun.		

358.	Α.	ARVENSIS,	Linn	Native.	British.
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Scottish.

English.

English.

MESPILUS.

359. M. GERMANICA, Linn. Alien. In a wood, near Busby Hall, Cleveland !- W. Mudd. Doubtless planted.

CRATÆGUS.

360, C. OXYACANTHA, Linn. Native. C. MONOGYNA, Jacq., is much more frequent in the county than the form with glabrous peduncles and calyces.

PYRUS.

362. P. COMMUNIS, Linn.	Denizen,	English.
363. P. MALUS, Linn.	Native.	English.
365. P. ARIA, Smith.	Native.	British.
365c. P. SCANDICA, Fries.	Native.	British.
	1 1 T T) 17 T	G11 TT7.

Cliffs above Holwick, Teesdale-J. Backhouse, Jun. The Wince bridge locality refers also to this supposed species, but is on the Durham side of the Tees ; and perhaps some of the other stations mentioned under P. Aria in the Flora.

366.	P. AUCUPARIA,	Gærtn.	Native.	British.

ORDER XXV. ONAGRACEÆ.

EPILOBIUM.

367. E. ANGUSTIFOLIUM, Linn.	Native.		British.
368. E. HIRSUTUM, Linn.	Native.		British.
369. E. PARVIFLORUM, Schreb.	Native.		British.
A glabrous form of this s	enocios E rivularo	Wahl	occurs occasion-

A glabrous form of this species, E. rivulare, Wahl, occurs occasionally.

370. E. MONTANUM, Linn. Native. British. 371. E. ROSEUM, Schreb. Native. British?

Ditches near Richmond, at Clifton, and beside the Foss at York— O. A. Moore. Damp ground near Ilkley !--G. S. Gibson. Banks of Codbeck, between Dalton and Sowerby. A plant which I collected in 1852, on the south bank of the Swale, near Topcliffe, is probably E. purpureum-Fries, Fl. Hall, p. 65; Nov. Mant. iii. 185; Summa. i. pp. 41 and 178. From E. roseum it differs by its subsessile leaves narrowed gradually below, by its bisulcate stem, and by its erect buds and dark purple flowers. It merits further examination in a growing state.

British.

272. E. PALUSTRE, Linn.

A plant which grows in company with this species at Gormire, near Thirsk, where it was discovered in 1844, by Mr. Borrer, (vide Phyt. ii. 425,) is probably E. virgatum of Fries. The same or something similar occurs near Barnard Castle, by the side of the road to Greta bridge-W. Borrer; by the roadside near Sedbergh-J. Backhouse, Jun.; and on the banks of the Black beck, Baysdale! -W. Mudd.

Native.

373. E. TETRAGONUM, Linn.	Native.	British.
374. E. ALPINUM, Linn.	Incognit.	
375. E. Alsinifolium, Vill.	Native.	Highland.

ŒNOTHERA.

375. Œ. BIENNIS, Linn. Alien. An occasional straggler from garden cultivation. Waste ground near Ayton, 1852 !- W. Mudd.

CIRCÆA.

Native. 377. C. LUTETIANA, Linn. Var. intermedia of English authors occurs on the banks of the Rother, near Sedbergh-J. Backhouse, Jun. Scottish.

378. C. ALPINA, Linn.

HIPPURIS.

379. H. VULGARIS, Linn.

MYRIOPHYLLUM.

380.	M. VERTICILLATUM, Linn.	N	ative.		\mathbf{E}_{1}	nglish	• •
	M. pectinatum, DC., alc	ng with	the grad	lations	which c	onnec	t it
	with the ordinary form ditches at Newsham Car	of the	species,	grows	plentiful	ly in	the
	unches at Newsham Gai	i and ere	sewnere.				

381.	M. SPICATUM, Linn.	Native.	British.
382.	M. ALTERNIFLORUM, DC.	Native.	British.
	T . 1 1 /	1 1 1 0 1 1	1 11 0 /1

Lakes, slow streams, and ditches; frequent. Probably some of the localities mentioned in the Flora, under M. spicatum, belong to this species.

ORDER XXVI. HALORAGACEÆ.

British.

British.

Native.

Native.

British.

CALLITRICHE.

383. C. VERNA, Linn. Native. British. 384. C. PLATYCARPA, Kutz. Native. British. Pools and ditches; frequent. Plentiful in the ditches at Askham bogs, near York, and at other localities. 385. C. PEDUNCULATA, DC. Native. British.

Lakes and ponds; not unfrequent. Probably the stations mentioned in the Flora under C. autumnalis refer to this species.

386. C. AUTUMNALIS, Linn.

CERATOPHYLLUM.

387. C. DEMERSUM, Linn. Native. English? The localities in the vicinity of the Foss, at York, mentioned under C. submersum in the Flora refer to this species.

388. C. SUBMERSUM, Linn.

The locality of "ponds at Newburgh" rests upon the authority of the Rev. Archdeacon Peirson. This species so much resembles the preceding, that it will be safest to wait till it is confirmed before receiving it with confidence.

ORDER XXVII. LYTHRACEÆ.

LYTHRUM.

389. L. HYSSOPIFOLIUM, Linn. Incognit. This species was collected long ago in the vicinity of Harrogate, by the Rev. Archdeacon Peirson (B. G. 692), but I am not aware that it has since been found within the limits of the county.

390. L. SALICARIA, Linn.

Native.

Native.

English.

PEPLIS.

391. P. PORTULA, Linn.

ORDER XXIX. CUCURBITACEÆ.

BRYONIA.

393. B. DIOICA, Linn.

Native.

English,

British.

Incognit.

Incognit.

ORDER XXX. PORTULACEÆ.

MONTIA.

394. M. FONTANA, Linn.

Native.

British.

M. rivularis, *Gmelin.*, a flaccid elongated form, occurs occasionally about springs and rivulets.

POLYCARPON.

398. P. TETRAPHYLLUM, Linn. Incognit. Near Hull—P. W. Watson, fide W. Brunton, B. G. 673. A list of the species in the Hailstone herbarium makes mention of a specimen received from this locality from Mr. Brunton.

SCLERANTHUS.

399. S. ANNUUS, Linn.

ORDER XXXI. ILLECEBRACEÆ.

BERBERIS.

401. B. VULGARIS, Linn.

Denizen.

Native.

English.

British.

EPIMEDIUM.

402. E. ALPINUM, *Linn.* Alien. Naturalised in Kildale woods, Cleveland !— W. Mudd.

ORDER XXXIII. GROSSULARIACEÆ.

RIBES.

403. R. NIGRUM, Linn. Denizen. English.
404. R. RUBRUM, Linn. Native. British.
R. petræum, Smith, Flora, 41, is now usually considered a variety of this species, and also R. spicatum, Robson! which formerly occurred in the vicinity of Richmond, but which is now stated to have become extinct.

405. R. ALPINUM, *Linn.* Native. Scottish.
406. R. GROSSULARIA, *Linn.* Denizen. British. Perhaps mlght be placed in the alien category without much risk

of error; but bushes may occasionally be seen in wild looking situations in woods, and on the edge of the moorlands.

ORDER XXXIV. CRASSULACEÆ.

SEDUM.

408. S. RHODIOLA, DC. Rhodiola rosea, Flora, 25.	Native.	Highland.
409. S. TELEPHIUM, Linn.	Native.	British.
410. S. VILLOSUM, Linn.	Native.	Scottish.
411. S. DASYPHYLLUM, Linn. On a wall near Bedale $!-T.S$	Alien. impson, W. Boston.	
412. S. ANGLICUM, <i>Linn.</i> On the round hill, Langbargh the outer gate of Scarborough		
413. S. ALBUM, <i>Linn.</i> Cottage roofs at Askew, near I On walls and roofs at Lofthou		
-W. Mudd.		
- W. Muaa. 414. S. ACRE, Linn.	Native.	British.
	Alien? d Castleton, Cleveland! these localities, and at \$	
 414. S. ACRE, Linn. 415. S. SEXANGULARE, Linn. Ayton, Stokesley, Danby, an Doubtless naturalised only at 	Alien? d Castleton, Cleveland! these localities, and at \$	
 414. S. ACRE, Linn. 415. S. SEXANGULARE, Linn. Ayton, Stokesley, Danby, an Doubtless naturalised only at Is it an introduced plant also 	Alien? d Castleton, Cleveland! these localities, and at \$ at the Malham station? Alien. Incognit.	— W. Mudd. Scarborough.
 414. S. ACRE, Linn. 415. S. SEXANGULARE, Linn. Ayton, Stokesley, Danby, an Doubtless naturalised only at Is it an introduced plant also 416. S. REFLEXUM, Linn. 417.* S. RUPESTRE, Linn. Supposed (probably in error) (vide Mr. Flintoff, B. G. 692). 	Alien? d Castleton, Cleveland! these localities, and at \$ at the Malham station? Alien. Incognit.	— W. Mudd. Scarborough.

COTYLEDON.

418. C. UMBILICUS, Linn.

Native.

Atlantic.

C. LUTEA, Huds.

Incognit.

Walls and rocks in the west riding—Mr. Tofield. "Mr. Fairbairn informed me that the stock of the plant now in Chelsea garden originated from a Yorkshire root introduced by Mr. Hudson"—D. Turner (B. G. 692). Not heard of as a plant of the county since the days of Tofield and Hudson.

ORDER XXXV. SAXIFRAGACEÆ.

SAXIFRAGA.

419. S. GEUM, Linn.

Alien.

Planted in a rock in Thorp Arch woods—S. Hailstone. Naturalised near Weathercote cave, four or five miles from Ingleton—J. Backhouse, Jun.

421. S. UMBROSA, Linn. Native. Local. Truly native at the Heseltine locality, a deep ravine at the foot of Pennygent and Fountain's fell—fide John Tatham (Phyt. i. 267, Cyb. Brit. i. 467); C. C. Babington (Phyt. i. 845); W. Borrer (Phyt. ii. 430); and J. Backhouse in litt., 1854: and in Lynn gill, near Horton, in Ribblesdale, where it was discovered by the Rev. J. Howson—fide J. Tatham (Phyt. i. 267). Naturalised only in the other localities. Covering large tracts in the woods at Storthes Hall, near Huddersfield—P. Inchbald (Phyt. iii. 331).

422. S. STELLARIS, Linn. Native. Highland.
In the streams which issue from Micklefell, Teesdale!—J. Backhouse, Jun., W. Foggitt. On the moor above Cantley Spout, near Sedbergh—John Nowell.

424. S. HIRCULUS, Linn.	Native.	Scottish.
425. S. AIZOIDES, Linn.	Native.	Highland.
426. S. oppositifolia, Linn.	Native.	Highland.
427. S. GRANULATA, Linn.	Native.	British.
430. S. TRIDACTYLITES, Linn.	Native.	British.
431. S. hypnoides, Linn.	Native.	Highland.

CHRYSOSPLENIUM.

434. C. OPPOSITIFOLIUM, Linn.	Native.	British.
435. C. ALTERNIFOLIUM, Linn.	Native.	British.
	PARNASSIA.	
436. P. PALUSTRIS, Linn.	Native.	British.

ORDER XXXVI. ARALIACEÆ.

ADOXA.

Native.

Native.

Native.

Native.

437. A. MOSCHATELLINA, Linn.

HEDERA.

438. H. HELIX, Linn.

ORDER XXXVII. CORNACEÆ.

CORNUS.

439. C. SANGUINEA, Linn. 440. C. SUECICA. Linn.

ORDER XXXVIII. UMBELLIFERÆ.

HYDROCOTYLE.

441. H. VULGARIS, Linn.

SANICULA.

442. S. EUROPŒA, Linn.

ERYNGIUM.

444. E. MARITIMUM, Linn.

445. E. CAMPESTRE, Linn.

"Melling, Yorkshire, has also been reported (by Hudson) as a locality, though probably by some mistake both of plant and county"—H. C. Watson (Cyb. Brit. i. 425).

CONIUM.

446. C. MACULATUM, Linn.

Native.

British

English. Highland.

British.

British?

British.

British.

British.

Native.

Incognit.

Native.

Native.

SMYRNIUM.

448. S. OLUSATRUM, Linn.

CICUTA.

449. C. VIROSA, Linn.

It is intimated in the Cybele Britannica, that modern confirmation would be desirable for the stations in Yorkshire recorded for this species. At Newsham Carr, where it was discovered by Sir T. Frankland, the true plant still occurs, 1853!—*T. Simpson.* Pond near Langwith, and marshy places between Kexby and Elvington-H. Ibbotson.

Native.

Native.

Denizen.

APTUM.

450. A. GRAVEOLENS, Linn.

PETROSELINUM.

- 451. P. SATIVUM, Hoffm. Alien. An occasional straggler from cultivation.
- 452. P. SEGETUM. Koch. Native. English. Sison, Flora, 47. Between Hull and Hedon, 1853-C. C. Babington. Specimens, both of this species and Sison Amomum from the vicinity of Hull, are mentioned in the list of the plants in the Hailstone collection.

HELOSCIADIUM.

- 454. H. NODIFLORUM, Koch. Native. English. Sium, Flora, 47. Slow streams, ditches, and watery places; frequent. S. repens, Flora, l. c., is probably only a variety of this species.
- 455. H. INUNDATUM, Koch. Sium, Flora, 47.

SISON.

456. S. AMOMUM, Linn. Native. English. Adwick, near Doncaster—P. Inchbald (Phyt. iii. 446). Between Doncaster and Askern—O. A. Moore. The station mentioned in Between the Flora rests upon the authority of the Rev. J. Dalton.

ÆGOPODIUM.

457. Æ. PODRAGRARIA, Linn,

Native.

British.

English.

English.

British.

British.

Native.

CARUM.

458. C. CARUI, Linn.

$\operatorname{Alien}?$

Meadows adjoining the Humber, near Hull; so plentiful that the poor people gather the seed to dispose of it to the druggists— *Teesdale*. Near the Black's Head, above Grantley—*Rev. J. Dalton*, (B. G. 680.) By the roadside on Sawley moor, near Ripon—*W. Brunton*. Waste ground near Scarborough—*W. Bean*. Amongst the Middlesborough ballast hills!—*W. Mudd! M. Umpleby*. Perhaps this species might be referred to a higher than the alien category.

BUNIUM.

461. B. FLEXUOSUM, With.

Native.

British.

PIMPINELLA.

462.	P. SAXIFRAGA, Linn.	Native.	British.
463.	P. MAGNA, Linn.	Native.	Germanic.

SIUM.

464. S. LATIFOLIUM, Linn.	Native.	English.
Ditch near the old	water-works, at HullC. C. B	abington.
465. S. ANGUSTIFOLIUM, Li	nn. Native.	English.

BUPLEURUM.

469. B. ROTUNDIFOLIUM, Linn. Colonist.

ŒNANTHE.

470. Œ. FISTULOSA, Linn.	Native.	English?	
471.* Œ. LACHENALII, Gmel.	Native.	English.	
In the ditches at Potteric Carr, Doncaster—O. A. Moore. (E. pim- pinelloides, Flora, 145.) Probably also the localities mentioned in the Flora, under Œ. peucedanifolia, refer to this species.			
472. Œ. SILAIFOLIA, Bieb?	Incognit.	is species.	
473. Œ. CROCATA, Linn.	Native.	British.	
474. Œ. PHELLANDRIUM, Lam.	Native.	English.	

ÆTHUSA.

475.	Æ.	CYNAPIUM,	Linn.	
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Native.

British.

Germanic.

FENICULUM.

476. F. VULGARE, Gaertn. Alien. Meum Fæniculum, Flora, 46. Amongst the Middlesborough ballast hills, 1852.

SILAUS.

479. S. PRATENSIS, Bess. Native. Cnidium Silaus, Flora, 46.

. MEUM.

480. M. ATHAMANTICUM, Jacq. Native. Scottish. On the sides of Howgill Fell, near Sedbergh-Rev. G. Pinder (Cyb. Brit. iii. 444).

ANGLICA.

482. A. SYLVESTRIS, Linn.

ARCHANGELICA.

A. OFFICINALIS. Linn.

Alien or Incognit.

PEUCEDANUM.

484. P. PALUSTRE, Manch. Selinum, Flora, 45.

485. P. OSTRUTHIUM, Koch. Imperatoria, Flora, 45. Waste ground opposite Middleton, and other places in Teesdale; in considerable abundance, but always not far from the vicinity of farm houses.

PASTINACA.

486. P. SATIVA, Linn. Native. British. Frequent between Maltby and Doncaster-O. A. Moore. Adwick, near Doncaster-P. Inchbald (Phyt. iii. 446). Naturalised amongst the Middlesborough ballast hills.

HERACLEUM.

487. H. SPHONDYLIUM, Linn.

DAUCUS.

489. D. CAROTA, Linn.

Native.

Native.

British.

British.

Germanic.

British

English.

Local.

Native.

Native.

Denizen.

CAUCALIS.

Colonist. 491. C. DAUCOIDES, Linn. Germanic. With Onobrychis sativa, on the magnesian limestone, at Tanfield-M. Hebblethwaite!

TORILIS.

493. T. ANTHRISCUS, Gartn.	Native.	British.
494. T. INFESTA, Spreng.	Native.	English.
495. T. NODOSA, Gartn.	Native.	English.

SCANDIX.

Colonist.

496. S. PECTEN, Linn.

ANTHRISCUS.

497.	A. VULGARIS, Pers.	Native.	British.
498.	A. SYLVESTRIS, Hoffm.	Native.	British.
499.	A. CEREFOLIUM, Hoffm.	Alien.	
	Waste ground near Ayton,	Cleveland, 1853-W.	Mudd !

CHÆROPHYLLUM.

500. C. TEMULENTUM, Linn.

MYRRHIS.

501. M. ODORATA, Scop. 5 Native. Scottish. This species grows so plentifully in wild looking situations in Tees-dale, Wensleydale, and amongst the oolite moorlands, that I cannot doubt that it is a genuine and aboriginal inhabitant of the county. (Vide B. G. 680.)

ORDER XXXIX. LORANTHACEÆ.

VISCUM.

503. V. ALBUM, Linn.

Native.

English.

British.

British.

Native.

ORDER XL. CAPRIFOLIACEÆ.

SAMBUCUS.

504. S. NIGRA, <i>Linn</i> .	Native.	British.
505. S. EBULUS, Linn.	Denizen.	British.

VIBURNUM.

506. V. OPULUS, Linn.	Native.	British.
507. V. LANTANA, Linn.	Native.	English.
Woods and thickets : rare	A dwiek-lo-street	near Doneston Rea

Woods and thickets; rare. Adwick-le-street, near Doncaster—*Kev.* W. W. Newbould (Cyb. Brit. iii. 449). Vide also, Flora, 114. Raincliffe wood, near Scarborough—J. Williamson. Mulgrave woods, near Whitby—W. Mudd !

Native.

LONICERA.

508. L. PERICLYMENUM, Linn.

509. L. CAPRIFOLIUM, Linn. Alien. Hedges near Bedale—T. Simpson; near Rotherham—L. Langley; and at Newton, between Ayton and Guisborough !—W. Mudd.

510. L. XYLOSTEUM, Linn. Alien.

In a wood on the Yorkshire side of the Tees, near Yarm !-W. Foggitt. In a plantation near the Woodend railway bridge, near Thirsk.

ORDER XLI. RUBIACEÆ.

GALIUM.

513. G. VERUM, <i>Linn</i> .	Native.	British.
514. G. CRUCIATUM, With.	Native.	British.
515. G. PALUSTRE, Linn.	Native.	British.
G. Witheringii, Flora,	30, is a common variety of	of this species.
516. G. ULIGINOSUM, Linn.	Native.	British.
517. G. SAXATILE, Linn.	Native.	British.
518. G. ERECTUM, Huds.	Native.	English.
In a limestone quarry	v at Hovingham near C	astle Howard !H

In a limestone quarry at Hovingham, near Castle Howard !-H. *Ibbotson* (Bot. Gaz. ii. 251). On the Wolds at Ganton, near Scarborough-*E*. *Bean*.

British.

Druisn

	•		0	
520.	G. PUSILLUM, Linn.	Native.	Scottish.	
	Limestone hills near Ingleton of Lunedale !—J. Backhouse, a mond—James Ward.			
521.	G. ANGLICUM, Huds.	Incognit.		
	The locality mentioned in the Flora for this species rests upon the authority of Mr. Knowlton (B. G. 674). It is needful that it should receive modern confirmation.			
522.	G. TRICORNE, With.	Colonist.	Germanic?	
G. SACCHARATUM, Linn. Incognit. G. verrucosum, Flora, 50. It is needful that the locality quoted in the Flora for this species should receive modern confirmation be- fore it can be accepted with confidence.				
523.	G. APARINE, Linn.	Native.	British.	
525.	G. BOREALE, Linn.	Native.	Scottish.	
SHERARDIA.				
526.	S. ARVENSIS, Linn.	Native.	British.	
ASPERULA.				

Native. British. 527. A. ODORATA, Linn. A. ARVENSIS, Linn. Alien. Between Brighouse and Sowerby bridge, in the vale of Calder-S. Gibson. (Phyt. i. 773.) Native. English.

528. A. CYNANCHICA, Linn.

519. G. Mollugo, Linn.

ORDER XLII. VALERIANACEÆ.

CENTRANTHUS.

529. C. RUBER, DC. Valeriana, Flora, 54.

VALERIANA.

531. V. DIOICA, Linn.	Native.	British.
532. V. OFFICINALIS, Linn.	Native.	British
V. sambucifolia, Mikan,		
and Bahington, is more	frequent than the true	e officinalis.

Native.

English.

Alien.

FEDIA.

534. F. OLITORIA, Vahl.	Native.	British.
Hedgebanks and cultivat	ed fields; frequent.	
535. F. CARINATA, Stev.	Denizen.	$\mathbf{English}$
In abundance on a rocky mile on the road to Rich the embankment of the J <i>M. Umpleby.</i>	mond-W. Francis, (B	ot. Gaz. ii. 223.) On
536. F. AURICULA, DC .	Colonist.	English.
Cornfields at Cantley, ne	ar Doncaster— <i>Rev. G.</i>	E. Smith.
537. F. DENTATA, Bieb.	Colonist.	English.
Cornfield and cultivated	land; frequent. Var.	mixta, Vahl, occurs

ORDER XLIII. DIPSACEÆ.

DIPSACUS.

D. FULLONUM, Linn.	Alien.	
539. D. SYLVESTRIS, Linn.	Native.	English.
540. D. PILOSUS, Linn.	Native.	Germanic.

SCABIOSA.

Native. 541. S. SUCCISA, Linn. 542. S. COLUMBARIA, Linn. Native.

KNAUTIA.

543. K. ARVENSIS, Coult. Native. British.

Scabiosa, Flora, 55. Cornfields and cultivated land; common. Α form with nearly entire leaves occurs in the Westfields, Thirsk.

ORDER XLIV. COMPOSITÆ.

TRAGOPOGON.

544. T. PRATENSIS, Linn.

occasionally.

Native.

British.

T. pratensis and major, Flora, 55. There seems to be strong reasons for believing that T. pratensis of Linnæus and T. minor of Fries,

British.

Germanic.

are forms of the same species. (Vide Cyb. Brit. ii. 33.) The last is by far the most frequent of the two.

Denizen. 545. T. PORRIFOLIUS, Linn. English. Borders of fields and ditches, Cliffrig, Ayton !- W. Mudd. Near Scarborough !- W. Bean.

HELMINTHIA.

546. H. ECHIOIDES. Gaertn. Pieris, Flora, 63.

PICRIS.

547. P. HIERACIOIDES, Linn.

Dry banks and roadsides; not unfrequent. Knavesmire, near York; about Doncaster; and frequent near Thorp Arch-O. A. Moore. In a field between the north lane and the park at Headingley-A. Shipley. Mowthorpe Dale, near Castle Howard—H. Ibbotson. Banks near Battersby and Teme bridge, Cleveland !—W. Mudd. Roadside between Ayton and Scarborough !- A. O. Black. Banks between Rievaulx and Cold Kirby.

THRINCIA.

548. T. HIRTA, Roth. Apargia, Flora, 65.

APARGIA.

549. A. HISPIDA, Willd.	Native.	English.
550. A. AUTUMNALIS, Willd.	Native.	British.

HYPOCHŒRIS.

551. H. GLABRA, Linn.

On the common close to the inn at Banktop, near Barnsley—Mr. Wood (B. G. 708). Near Thorp Arch-S. Hailstone. Fields near Ganthorpe-H. Ibbotson. The plant mentioned under this name in the Flora is erroneous.

Incognit.

Native.

- 552. H. MACULATA, Linn.

The plant mentioned under this name in the Flora is an Hieracium, placed by Fries as a form of his cæsium; but which seems scarcely to agree with that species. Native.

553. H. RADICATA, Linn. F

British.

English.

English.

English.

English.

Native.

Native.

Native.

LACTUCA.

554. L. VIROSA, Linn.	Native.	Germanic
557. L. MURALIS, Lees.	Native.	English.
Prenanthes, Flora, 62.		-

SONCHUS.

559. S. ARVENSIS, Linn.	Native.	British.
560. S. ASPER, Hoffm.	Native.	British.
S. oleraceus, p. Flora, 82.		
561. S. OLERACEUS, Linn.	Native.	$\mathbf{British}$

CREPIS.

563.	C. VIRENS, Linn.	Native.	British.
	C. tectorum, Flora, 62.		
564.	C. BIENNIS, Linn.	Native.	English.
		Near Cleveland Lodge,	
	Fields near Thorp Arch in the Flora under this	-S. Hailstone. Is the name the true plant?	species mentioned
566.	C. SUCCISÆFOLIA, Tausch.	Native.	Highland.
	Heseltine gill, near Set	tle—W. Borrer (Phyt. ii.	428). Bank of the

Tees below Wince bridge, hedgebank between High Startforth and Lartington, and other places in Teesdale. 567. C. PALUDOSA, Mænch. Native. Scottish. Hieraeium, Flora, 64.

HIERACIUM.*

568. H. PILOSELLA, Linn.	Native.	British.
569. H. AURANTIACUM, Linn.	Alien.	
Naturalised near Settle- Cleveland— <i>W. Mudd.</i>	-J. Backhouse, Jun.;	and in Wilton Woods,
576. H. LAWSONI, Smith.	Native.	Highland.
Under this name I have	e included a plant whi	ch grows sparingly at

*In this genus, I have slightly departed from the classification followed in the London Catalogue. The species which Britain produces want carefully working out by watching the range of variation of the characters of each in its natural localities and under cultivation. The "Symbolæ ad Historiam Hieraciorum" of Fries has given a vivid impulse to the study of these plants, and it is hoped that we may be enabled, before long, to have the nomenclature of the British representatives of the genus settled upon a substantial and satisfactory basis. But at present, whilst undergoing the process of renovation, they are involved in a considerable amount of confusion. I have published specimens of most of the Yorkshire forms in the "Hieracia of North Yorkshire and Teesdale."

the White Force, Cronkley Fell, which has been referred to cerinthoides by Fries and others (vide Cyb. Brit. ii. 59, Phyt. iv. 1050); another which grows on the Maize-beck scarrs !-J. E. Bowman, and in several other places in Teesdale, but principally on the Durham side of the river ("H. pilosum var. subnudum Frol." fide Fries, Symb., p. 57. Vide Phyt. iv. 1050); and a third from Heseltine gill, near Settle, placed under anglicum of Fries, in the third edition of Babington's Manual. My friend, J. Backhouse, Jun., has ascertained that these plants approach each other very closely in cultivation; so that we may take for granted, that they are all one and the same species. But it would seem doubtful, whether the Teesdale cerinthoides is the true plant of Linnæus. It differs considerably from specimens for which I am indebted to Mr. H. C. Watson, of the plant he mentions, Cyb. Brit., ii. 59.

577. H. IRICUM, Fries. Native. Highland.

Rocky bank of the Tees between Wince bridge and Holwick; in considerable abundance. Native.

575. H. PALLIDUM, Bir. Fries !

Cronkley Scarrs and Wince bridge, Teesdale!-J. Backhouse, Jun. More plentiful on the Durham than on the Yorkshire side of the Tees. The Teesdale plant, which was supposed to be identical with H. saxifragum of Fries, is a form of this species.

H. OREADES, Fries.

Goredale Scarr, near Malham-Dillenius, fide Fries. Not found recently.

H. VILLOSUM, Linn.

The Meer gill plant is perhaps H. nigrescens-J. Backhouse, Jun. The other two localities mentioned in the Flora under this species, probably refer to forms of H. vulgatum.

Native. 572. H. MURORUM, Linn., Fries. British.

H. nudicaule, *Edmonst* ! Rocks and walls; not unfrequent. Rocks near Settle !—J. Tatham. Hell Kettles, near Croft !—T. J. Foggitt. Rocks in the wood at Hackfall!-M. Hebblethwaite. On the walls of Fountains Abbey On the banks of the Tees below Wince bridge. Rainton heights, rocks above Hawnby, Sutton bank, and other places amongst the Hambleton hills. H. murorum, Flora, 63, includes also the following species.

572.*	H.	CÆSIUM,	Fries

In similar situations; not unfrequent. Castlebar rock and other places near Settle!-J. Tatham. Maizebeck-T. J. Foggitt. Walls at Cotherstone, and other places in Teesdale. Rocks above Hawnby, Whitestonecliff, Boltby Scarr, and in several other localities amongst the Hambleton hills.

Native.

572.*b H. HYPOCHÆROIDES, Gibs. Native. Local. Hypochæris maculata, Flora, 64. Gordale and Giggleswick Scarrs, near Settle !- J. Backhouse, Jun ! J. Tatham ! S. Thompson.

Highland.

Incognit.

Incognit.

British.

573. H. VULGATUM, Fries.

H. sylvaticum, Flora, 63. very variable species. sylvaticum of Smith. This includes both H. maculatum and

- Native. 582.* H. GOTHICUM, Fries! Scottish. Banks of the Tees, below Wincebridge and Holwick. H. gothicum of Babington's Manual! (third edition) and of the London Catalogue! (fourth edition) includes H. gothicum, Fries., and H. tridentatum, Fries. in part. The true plant of Fries. is allied to vulgatum rather than to tridentatum (Vide Phyt. iv. 1051).
- 582. H. TRIDENTATUM, Fries. Native. British. Woods and thickets; probably not unfrequent. Woods about Guisborough Spa!-W. Mudd. Bank of the Tees, below Wincebridge. Woodend, near Thirsk; plentiful; and between Dalton and Sowerby. Roadside between Thirsk and Sutton-under-Whitstonecliff. Woods in Nettledale and Flazendale. Boltby bank, Hawnby bank, and other places amongst the Hambleton hills.
- 583. H. RIGIDUM, Fries. Incognit. If the Teesdale plant mentioned under corymbosum be truly that species, an Hieracium which occurs at Langwith and in other places near York! (J. Backhouse, Jun.) may possibly be referred to here. 579. H. PRENANTHOIDES, Vill. Native.
 - Banks of the river at Stamforth, near Settle !-- J. Tatham. Rocks in the woods at Hackfall !-- W. Foggitt, T. Simpson. A plant which grows on the hillside near Bolton Castle, Wensleydale !-- J. W. Watson. Intermediate in character between this species and H. crocatum is probably H. strictum of Fries (vide Phyt. iv. 844).
- Scottish. 580. H CROCATUM, Fries. Native. Near Settle !-- J. Tatham. Bank of the Tees about lower Cronkley and Wince bridges (vars. angustatum and dilatatum, Fries).

580.* H. CORYMBOSUM, Fries. Incognit. A plant which grows in Teesdale, in company with the preceding,

has been considered to belong to this species (vide Bab Man. iii. &c.) but when specimens were sent to the author of the "Symbolæ" by my friend J. Backhouse, Jun., he referred them, perhaps by some oversight, to his H. rigidum. The same, or something similar, occurs at Kirby Hill, near Richmond-J. Ward.

- 584. H. UMBELLATUM, Linn. Native. British. Woods, heaths, and hedgebanks; frequent. Var. minus, of Fries, grows in a wood on the top of the moor above Ingleby Greenhow, Cleveland ! - W. Mudd.
- 581. H. BOREALE, Fries. Native. British. H. sabaudum, Flora, 64. Moory places and hedgebanks; common.

BARKHAUSIA.

587. B. SETOSA, DC.

Alien.

Scottish.

Native. Walls, rocks, and woods; a common and

British.

Found occasionally in cultivated fields. Airyholme, Cleveland !---W. Mudd. Carlton moor, Sowerby fields, and other places near Thirsk.

TARAXACUM.

Native. 588. T. OFFICINALE, Wigg. British. Leontodon Taraxacum and palustre, Flora 63. A very variable species. The normal form is universally distributed. T. lævigatum and erythrospermum, DC, are not unfrequent on dry banks, and T. palustre, DC., in marshy places, especially in elevated situations.

LAPSANA.

Native.

Native.

590. L. COMMUNIS, Linn.

CICHORIUM.

591. C. INTYBUS, Linn.

ARCTIUM.

592. A. LAPPA, Linn. Native. British. This includes two species, according to continental authors. Of these, A. minus, Schk., (A. Bardana, Willd.,) is the most frequent in Yorkshire, especially in the form of A. intermedium, Lange MSS., Bab. Man. 3.

SERRATUTA.

594.	S. TINCTORIA, Linn.	Native.
	An entire leaved variet	v occurs occasionally.

CARDUUS.

595. C. NUTANS, Linn.	Native.	English.
596. C. ACANTHOIDES, Linn.	Native.	British.
This also includes two specie authors, C. acanthoides and	es, according to Koch and C. crispus.	other foreign
597. C. TENUIFLORUS, Curt.	Native.	English.
598. C. MARIANUS, Linn.	Denizen.	English.
599. C. LANCEOLATUS, Linn.	Native.	British.
600. C. ERIOPHORUS, Linn.	Native.	English.
Et seq. Cnicus, Flora, 60.		
601. C. PALUSTRIS, Linn.	Native.	$\operatorname{British}$.
602. C. ARVENSIS, Curt.	Native.	British.

English.

British.

English.

604.	C. PRATENSIS, Huds.	Native.	English.
607.	C. HETEROPHYLLUS, Linn.	Native.	Scottish.

ONOPORDUM.

Native?

Native.

English.

English.

608. O. Acanthium, Linn.

CARLINA.

609. C. VULGARIS, Linn.

CENTAUREA.

C. MONTANA, Linn.

Alien. "Many years ago Mr. Jas. Ward favoured me with specimens from the neighbourhood of Richmond"-H. C. Watson (Cyb. Brit. ii. 88).

C. JACEA, Linn.

The plant mentioned under this name in the Flora, is not the true Jacea of Linnæus. Specimens of a radiate Centaurea from East moors, Castle Howard — M. B. Slater, and other localities seem to coincide with my examples marked "C. nigrescens, Willd.," from the south of England; but I have not been able to distinguish clearly between that alleged species and the radiate form of C. nigra.

611. C. NIGRA, <i>Linn</i> .	Native.	British.
612. C. CYANUS, Linn.	Colonist.	British.
613. C. SCABIOSA, Linn.	Native.	English?
615. C. CALCITRAPA, Linn.	Incognit.	

It is intimated in the Cybele Britannica, that it is desirable that the locality mentioned in the Flora for this species should receive confirmation.

Dry pastures near Frystone-A. Aikin (B. G. 710). Like Barkhausia setosa, this species also appears occasionally in cultivated ground. Leeming Lane, near Bedale, 1853!-T. Simpson.

GALACTITES.

Alien. G. TOMENTOSA, Manch. Naturalized amongst the Middlesborough ballast hills, 1853 !- W. Mudd. A native of the coasts of the Mediterranean.

BIDENS.

617.	B. CERNUA, Linn.	Native.	British?
618.	B. TRIPARTITA, Linn.	Native.	English.

Incognit.

^{616.} C. Solstitialis, Linn. Alien.

EUPATORIUM.

Native.

Native.

619. E. CANNABINUM, Linn.

TANACETUM.

622. T VULGARE, Linn.

ARTEMISIA.

623. A. CAMPESTRIS, Linn. "Mr. Moore reports it from Ganton, near Scarborough, in Yorkshire, on the authority of Mr. Ibbotson." This habitat "will require confirmation, though it does not appear improbable in itself."—H. C.Watson, (Cyb. Brit. ii. 97). It is not, though, exactly "on the Yorkshire coast."

624. A. MARITIMA, Linn.	Native.	$\mathbf{English}.$
625. A. Absinthium, Linn.	Native.	English.
626. A. VULGARIS, Linn.	Native.	British.

GNAPHALIUM.

627. G. DIOICUM, Linn. 628. G. MARGARITACEUM, Linn. Alien. Scotland mills, Addle, near Leeds-A. Shipley. Bank of the river near Brompton-on-Swale-T. Simpson. Locker, Snailesworth, but now extinct-W. Foggitt. In considerable abundance on the coast cliffs about three miles south of Scarborough !- A. O. Black.

630. G. SYLVATICUM, Linn. Native. British. Native. British. 632. G. ULIGINOSUM, Linn.

FILAGO.

634. F. MINIMA, Fries.	Native.	$\mathbf{British}$
Et seq. Gnaphalium, Flora, 56.		
635. F. GERMANICA, Linn.	Native.	British.

635b. F. APICULATA, G. E. Smith. Native. English. Sandy places, Cantley and Rossington, near Doncaster-Rev. G. E. Smith. It was from specimens collected at these localities that the species was originally described.

PETASITES.

636. P. VULGARIS, Desf.

Native.

British.

Scottish.

British.

British.

Incognit.

Native.

P. ALBUS, *Gartn.* Alien. A large patch in a damp stony hollow in an oak wood north of Storthes Hall, near Huddersfield—*P. Inchbald* (Phyt. iii. 445).

Native.

Native.

TUSSILAGO.

637. T. FARFARA, Linn.

ERIGERON.

639. E. ACRIS, Linn.

ASTER.

641. A. TRIPOLIUM, Linn. A. BRUMALIS, Linn. Native. Alien.

Native.

British.

Naturalized in considerable abundance in a wood on the Yorkshire side of the Tees, at High Worsall, near Yarm !-W. Foggitt.

SOLIDAGO.

642. S. VIRGAUREA, Linn.

SENECIO.

643.	S. VULGARIS, Linn.	Native.	British.
644.	S. SYLVATICUS, Linn.	Native.	British.
	S. sulvaticus and lividus, Flora.	57.	

645. S. VISCOSUS, *Linn.* Native? British. The localities near York reported in the Flora under this species refer to S. sylvaticus. The others rest upon the authority respectively of the late Dr. Wasse and the Rev. Archdeacon Peirson, and perhaps may only produce the same, so that modern confirmation of the occurrence of this species would be desirable.

647. S. ERUCIFOLIUS, Linn.	Native.	$\mathbf{English}.$
S. tenuifolius, Flora, 57.	Hedgebanks and thickets ;	frequent.
648. S. JACOBÆA, Linn.	Native.	British.
648.* S. AQUATICUS, Huds.	Native.	British.
650. S. SARACENICUS, Linn.	Denizen.	English.

On the Addle side of Weetwood, near Leeds—A. Shipley. Frequently in the neighbourhood of Sedbergh, by the river, and in uncultivated places—Rev. G. Pinder (Cyb. Brit. ii. 119).

DORONICUM.

653. D. PARDALIANCHES, Linn. Alien.

British.

English

British.

Near the World's End, Harrogate-Mr. Manby (B. G. 710). Several Near the world's End, Harrogate—*urr. Manoy* (B. G. 10). Several patches occur in the valley of Don, between Doncaster and Conis-bro' Castle, far from any traces of cultivation—*P. Inchbald* (Phyt iii. 330). In a wood at the back of Lartington Hall, leading down to the Tees—*W. Francis* (Bot. Gaz. ii 223). Clintswood, near Rich-mond—*James Ward*. Cliffrig and Newton wood, near Ayton!—*W. Mudd*. Plentiful in an old shrubbery between Sinderby and Holme, near Thirsk.

654. D. PLANTAGINEUM, Linn. Alien. Woods at Kirklington, between Ripon and Bedale !-- T. Simpson.

INULA.

655. I. HELENIUM, Linn.	Native.	English.
656. I. CONYZA, DC.	Native.	English.
Conuza squarrosa, Flora, 55.		

PULICARIA.

658. P. DYSENTERICA, Gærtn. Native. English.

659. P. VULGARIS, Gærtn. Incognit.

> "In Yorkshire, according to the outlines; but I cannot find the original authority"-H. C. Watson (Cyb. Brit. ii. 124).

> > Native.

BELLIS.

660. B. PERENNIS, Linn.

CHRYSANTHEMUM.

661. C. SEGETUM, Linn.	Colonist.	British.
662. C. LEUCANTHEMUM, Linn.	Native.	British.

PYRETHRUM.

663. P. PARTHENIUM, Smith.	Denizen.	British.
664. P. INODORUM, Smith.	Native.	British.
To the plant montioned in th	o Flows mage 50	the true Mr

Is the plant mentioned in the Flora, page 59, the true M. maritima, Linn., or only the littoral form (var. salina, Wallr.) of this species? The original authority for the locality was Teesdale (B. G. 710).

MATRICARIA.

665. M. CHAMOMILLA, Linn. Native. English. Cornfields, cultivated land, and road sides; frequent.

British.

- 667. A. NOBILIS, Linn. Native. 668. A. ARVENSIS, Linn. Native. Cultivated fields; not unfrequent.
- 669. A. COTULA, Linn. Native. English. In similar situations to the preceding, but more frequent

ACHILLÆA.

671. A. PTARMICA, Linn.

A. TANACÉTIFOLIA, AU.

On a rough hilly bank near Ringing Low, near Sheffield-J. Hardy, fide C. C. Babinyton (A.N.H., Feb. 1847). Extinct in 1849-W. Borrer (Cyb. Brit. iii. 464). "I fully believe it to be no modern interloper; but it is now rare, or almost eradicated. I find it has been carried into several gardens at Sheffield "-J. Hardy, in litt. 1854.

Native.

A. SERRATA, Smith.

"A specimen of a yellow flowered Achillea, a mere fragment without leaves, is preserved in my herbarium, along with the following label: 'Societas Botanica Edinensis, Achillea serrata, Hab. Bur-lington, Co. York, Comm. Mann. Coll. 1840.' As far as I can say from the top of a flowering stem only, this is the plant intended by English botanists under the name of A. serrata—one cultivated in gardens. And I deem it highly probable that the fragment in question once grew in a garden, although labelled as if a wild Briton" -H. C. Watson, in litt. 1854.

672.	A. MILLEFOLIUM,	Linn.	Native.	British.
	A. TOMENTOSA, La	inn.	Alien.	

A casual garden escape. Stokesley, Cleveland, 1852!-W. Mudd.

ORDER XLV. CAMPANULACEÆ.

CAMPANULA.

675. C. ROTUNDIFOLIA, Linn.	Native.	British.
676. C. PATULA, Linn.	Native.	English.
Near Rotherham—L. Lang	ley. Gravelly banks	s of the Esk, Ruswarp,
near Whitby $-W$. Mudd.	Bank of the Te	es below Yarm—T. J.
Foggitt.		
677 C DIDWIGHT TO TIME	Doninon	Fnelich

677. C. RAPUNCULUS, Linn. Denizen. English. Hedges at Wressle, near Howden-Rev. Archdeacon Peirson (B. G. 676). Hedgebanks and borders of fields, Cliffrig, Ayton !- W. Mudd.

British.

English.

English.

Alien or Incognit.

Incognit.

Nativo

070. U. LATIFOLIA, LOUIN.	1.0001.001	000000000000000000000000000000000000000
679. C. RAPUNCULOIDES, Linn.	Native.	$\mathbf{Scottish}?$
Doubtless a true native Sleningford, near Ripon- escape from garden culti	-T. Simpson. Occur	ing occasionally as an
680. C. TRACHELIUM, <i>Linn.</i> It is desirable that the should receive confirmation	occurrence of this	species in the county
681. C. GLOMERATA, Linn.	Native.	Germanic.
A	A 1*	

682. C. PERSICIFOLIA, Linn. Alien. Thorp Arch woods, but certainly not native-S. Hailstone.

WAHLENBERGIA.

Native.

Colonist.

683. W. HEDERACEA, Reich. Campanula, Flora, 54.

678 C LATITOLIA Linn

SPECULARIA.

684. S. HYBRIDA, A. DC. Campanula, Flora, 53.

> S. SPECULUM, (Linn.) Alien.

A few specimens in a fallow field between Thirsk and the railway station, 1854!-R. W. Long and Eliza H. Smith. Probably introduced with foreign seed, as it inhabits cultivated fields upon the continent.

PHYTEUMA.

685. P. ORBICULARE, Linn.

"From the Botanical Society of London I have received a specimen localised from Sheffield, on the authority of Mr. J. G. Lyon. This habitat should be confirmed "-H. C. Watson (Cyb. Brit. ii. 143).

JASIONE.

687. J. MONTANA, Linn.

Native.

British?

ORDER XLVI. ERICACEÆ.

ERICA.

690. E. TETRALIX, Linn.	Native.	British.
692. E. CINEREA, Linn.	Native.	British

Incognit.

Atlantic.

Scottich

English.

92

CALLUNA.

British. 695. C. VULGARIS, Salisb. Native. ANDROMEDA. 699. A. POLIFOLIA, Linn. Native. Scottish. ARBUTUS. 701 A. UVA-URSI, Linn. Native. Highland. VACCINIUM. 703. V. Myrtillus, Linn. Native. British. 704. V. ULIGINOSUM, Linn. Incognit. The locality mentioned under this species in the Flora is on the Durham side of the Tees, so that we cannot claim it as a Yorkshire plant. Native. 705. V. VITIS-IDÆA, Linn. Highland. 706. V. Oxycoccos. Linn. Native. Scottish. PYROLA. 707. P. ROTUNDIFOLIA, Linn. Native. Scottish. Near Croft-James Ward. It would appear (vide Phyt. iv. 119) that specimens of the variety arenaria have been procured from the Yorkshire coast, but I do not know the special locality.

708. P. MEDIA, Swartz. Native. Scottish.
709. P. MINOR, Linn. Native. Scottish.
710. P. SECUNDA, Linn. Native. Highland. Cautley crags, near Sedbergh—Rev. G. Pinder (Cyb. iii. 468). Rocks at the White Force, Cronkley Fell, Teesdale—J. Backhouse, Jun.

MONOTROPA.

712. M. Hypopitys, Linn.

ORDER XLVII. ILICACEÆ.

ILEX.

713. I. AQUIFOLIUM, Linn.

Native.

Native.

British.

English.

ORDER XLVIII. JASMINACEÆ.

LIGUSTRUM.

714. L. VULGARE, Linn.

Native.

English.

FRAXINUS.

715. F. EXCELSIOR, Linn. Native. British. Var. heterophylla, Vahl., is much cultivated near Doncaster—O. A. Moore.

ORDER XLIX. APOCYNACEÆ.

VINCA.

716. V. MINOR, Linn.

Possibly this species might be referred to a higher than the alien category. In the woods at Storthes Hall, near Huddersfield, it is stated to grow "interspersed with Saxifraga umbrosa in such abundance as to preclude the possibility of its being an escape from garden cultivation"—*P. Inchbald* (Phyt. iii. 332). But on the preceding page it is expressly stated, that the Saxifraga, though "covering large tracts," is "naturalised" only; so that there must be a strong probability that the periwinkle which grows intermixed with it, has been "naturalised" also.

Alien.

Alien?

717. V. MAJOR, Linn.

ORDER L. GENTIANACEÆ.

GENTIANA.

718. G. VERNA, Linn.	Native.	Local.	
Ascends also nearly to the	summit of Mickle	fell—J. Backhouse, Jun.	
719. G. PNEUMONANTHE, Linn.	Native.	English ?	
721. G. AMARELLA, Linn.	Native.	British.	
This includes two species of continental authors, G. Amarella, L., and G. Germanica, <i>Willd</i> . The former is not uncommon in dry, heathy situations; the latter occurs occasionally.			
722. G. CAMPESTRIS, Linn.	Native.	British.	

ERYTHRÆA.

Native. 724. E. CENTAURIUM, Pers. British. 724c. E. PULCHELLA, Fries. Native. English. Vide Flora, 142. Probably specifically distinct from the preceding.

CHLORA.

Native.

Alien.

Native.

725. C. PERFOLIATA, Linn.

VILLARSIA.

726. V. NYMPHÆOIDES, Vent.

MENYANTHES.

727. M. TRIFOLIATA, Linn.

POLEMONIUM.

728. P. CERULEUM, Linn. Native. Local. Truly native in the Craven localities. Probably introduced in the other station; also in a plantation near the West Fields, Richmond -J. Ward; and in the hedges at Pouter Carr, near Topcliffe, where it grows in considerable abundance.

COLLOMIA.

C. GRANDIFLORA, Douglas. Alien. In the autumn of 1852 my friend W. Foggitt and I collected several specimens of this native of north-western America, in a barley field behind Thirsk church (vide Phyt. iii. 760).

ORDER LI. CONVOLVULACEÆ.

CONVOLVULUS.

729. C. ARVENSIS, Linn. Native. British. Native. 730. C. SEPIUM, Linn. English.

CUSCUTA.

732. C. EUROPÆA, Linn. Native. English. In a field near Little Ouseburn-J. Cramond. Fields at Beningborough, 1849-O. A. Moore.

British.

English.

734. C. EPITHYMUM, Smith. Native. English. On furze near Teme bridge, Cleveland, 1852 !--W. Mudd.
735. C. TRIFOLH, Bab. Colonist? English. On clover and other plants in cultivated fields near Tadcaster, 1842 --H. Baines. Heslington fields, near York, 1852-J. Backhousse, Jun. Long plain, Hawnby, Bilsdale !--R. Foxton. Hutton Rudby, near Stokesley, 1853 !--W. Mudd. Carthorpe, near Bedale, 1854 !----W. Boston.

ORDER LII. SOLANACEÆ.

HYOSCYAMUS.

736. H. NIGER, Linn.

Native.

Native.

Native.

British.

SOLANUM.

737. S. NIGRUM, Linn.

738. S. DULCAMARA, Linn.

ATROPA.

739. A. Belladonna, Linn.

DATURA.

D. SATEMONIUM, *Linn.* Alien. A casual straggler from garden cultivation to rubbish heaps and waste ground.

LYCIUM.

L. BARBARUM, *Linn.* Alien. The ordinary material for seaside fences in the vicinity of Redcar and Marske.

ORDER LIII. SCROPHULARIACEÆ.

VERBASCUM.

740. V. THAPSUS, Linn.

Native.

English.

English. British.

Denizen.

English.

- 742. V. FLOCCOSUM, W. and K. Incognit. Near Rotherham—L. Langley. It is desirable that the occurrence of this species in the county should be confirmed.
- 743. V. NIGRUM, Linn.

Native.

Denizen?

English.

In the lane leading to Croft, near Middleton Tyas-J. Ward.

744. V. BLATTARIA, Linn.

English. Lane by Highthorne, near Easingwold-Rev. Archdeacon Peirson. Walls of Tickhill Castle-Dr. Maton(B. G. 677). Roadside between Wensley and the Middleham suspension bridge, 1849-T. Simpson. The station reported in the Flora rests upon the authority of R. Cameron. I have not seen the localities and consequently have not a clear idea to which of the categories of citizenship the species should be referred.

VERONICA.

747. V. ARVENSIS, Linn. Native. British. Native. 749. V. TRIPHYLLOS, Linn. Local (Germanic) Dry banks and cultivated fields; locally and periodically plentiful. First found in the vicinity of Doncaster, by Tofield; re-discovered in sandy ground near Cantley-Rev. G. E. Smith (Phyt. ii. 284), P. Inchbald (Phyt. iii. 447). On a sandy bank near Nether Popple-ton; discovered in 1842—H. Wetherill. Hobmoor, Acomb, and other places near York!—S. Thompson. 750. V. SERPYLLIFOLIA, Linn. Native. British. Native. 753 V. SCUTELLATA, Linn. British. The hairy variety (V. PARMULARIA of authors); occurs occasionally. 754. V. ANAGALLIS, Linn. Native. British. British. 755. V. BECCABUNGA, Linn. Native. 756. V. OFFICINALIS, Linn. Native. British.

757. V. MONTANA, Linn.	Native.	British?
758. V. CHAMŒDRYS, Linn.	Native.	British.
759. V. HEDERIFOLIA, Linn.	Native.	British.
760. V. Agrestis, Linn.	Native.	British.
761. V. POLITA, Linn.	Native.	British.
762. V. BUXBAUMII, Ten.	Alien.	

Cultivated fields and waste places; not unfrequent. Clover field near Haxby, 1840—*R. Spruce.* Heslington fields, and Towthorpe moor, near York, 1841—*O. A. Moore.* East woods, Castle Howard, 1844.—H. Ibboison. Maltby, near Doncaster, 1846.!—Rev. G. E. Smith. Rose Nursery, near Malton, 1847.!—M. B. Slater. Carlton moor, near Thirsk, 1853!-W. Foggitt. Lane behind Sowerby, near Thirsk. On the railway embankment near Scarborough mere, 1853. Fields between Woodend and Newsham.

BARTSIA.

763. B. ALPINA, Linn Native. Highland. Marshy ground near Malham Tarn, Craven !- W. Wilson, J. Tatham. 765. B. Odontites, Huds. Native. British.

EUPHRASIA.

766. E. OFFICINALIS, Linn.

RHINANTHUS.

767. R. CRISTA-GALLI, Linn.	Native.	British.
767b. R. MAJOR, Linn.	Native.	British.

Probably specifically distinct from R. Crista-galli, but forms apparently intermediate occasionally occur. Our plant is var. stenopterus, Fries.

Native.

MELAMPYRUM.

768. M. CRISTATUM, Linn. Incognit. In Walton field, near Wakefield, among the corn-Ray (B. G. 699). Doubtless an error.

Native. British. 770. M. PRATENSE, Linn. M. montanum, Johnst., probably a variety of the species, occurs in Teesdale—J. Backhouse, Jun.; and on the training ground near Richmond—J. Ward. Doubtless some of the stations enumerated in the Flora under M. sylvaticum produce only this species. Scottish.

Native. 771. M. SYLVATICUM, Linn.

PEDICULARIS.

772. P. PALUSTRIS, Linn.	,	Native.	British.
773. P. SYLVATICA, Linn.		Native.	British.

SCROPHULARIA.

774. S. NODOSA, Linn.	Native.	British.		
774b. S. EHRHARTI, Stev.	Native.	English.		
In similar situations to the preceding; rare. Skipton, Gargrave, and Salterforth, near Settle !J. Backhouse, Jun.				
775. S. AQUATICA, Linn.	Native.	English.		

777. S. VERNALIS, Linn.	Denizen.	English.
		by station is just under
		the plant has doubtless
stances—John Hardy.	s at Cantley under	less suspicious circum-
9		

British.

DIGITALIS.

778. D. PURPUREA, Linn.

Native.

Alien.

British.

English.

English.

ANTIRRHINUM.

779. A. MAJUS, Linn. 780. A. ORONTIUM, Linn. Native? English. Rose nursery near Malton, probably introduced -M. B. Slater. It is desirable that the category of citizenship to which this species must be referred should be clearly ascertained.

LINARIA.

- 781. L. CYMBALARIA, Mill. Alien. Et seq. Antirrhinum, Flora, 78.
- 782. L. SPURIA, Mill. Native. English. Cornfields about Appleton and Barton, near Malton-Rev. Archdeacon Peirson (B. G. 700). With the succeeding species, in fields near Scarborough-J. Williamson.
- Native. L. ELATINE, Mill. English. Cornfields near Scarborough—J. Williamson. Hedgeside at Maltby, near Doncaster—O. A. Moore. Near Rotherham—L. Langley.
- 784. L. REPENS, Ait. Native. English. Old walls near the mill at Richmond-J. Ward. Bank of the Esk, Ruswarp, near Whitby !- W. Mudd.

Native.

Native.

- 785. L. VULGARIS, Desf. A, Linaria, Flora, 78.
- 787. L. MINOR, Desf.

LIMOSELLA.

Native. English. 788. L. AQUATICA, Linn. Near Normanby bridge, and wet places near Kirby Moorside-Rev. Archileacon Peirson (B. G. 700). The locality mentioned in the Flora is not in Wharfdale, as stated at page viii., but near Richmond.

MIMULUS.

Alien. 789. M. LUTEUS, Linn. Naturalized in boggy places or waste ground in the vicinity of gardens. Near Settle-J. Backhouse, Jun. Bogs in Kildale, Cleveland, 1853 !- W. Mudd. In the Skell at Studley, 1850 ; and about the ruins at Fountains abbey, 1852.

98

ORDER LIV. OROBANCHACEÆ.

OROBANCHE.

790. O. MAJOR, Linn ?	Native.	English.	
792. O. ELATIOR, Sutt.	Native.	$\mathbf{English}$	
793. O. MINOR, Sutt.	Native.	$\mathbf{English}$?	
Dunkirk wood, near Sleningford— <i>Rev. J. Dalton.</i> Near Nunwick, by Ripon— <i>W. Brunton</i> (B. G. 700). Heslington fields, near York— <i>J. Backhouse, Jun.</i> Howe-upon-Swale, and Burnistone, near Ripon; plentiful— <i>T. Simpson.</i> West fields and other localities near Thirsk; periodically abundant.			
794. O. RUBRA, Smith. Leyburn Shawl, Wensley	Native. dale; sparingly— <i>Re</i>	Local. v. R. Pulleine, J. Ward.	

LATHRÆA.

Native.

797. L. SQUAMARIA, Linn.

ORDER LV*. VERBENACEÆ.

VERBENA.

798. V OFFICINALIS, Linn.

ORDER LV. LAMACEÆ.

SALVIA.

799. S. VERBENACA, Linn.

800. S. FRATENSIS, Linn. Incognit. Mentioned as a Yorkshire plant in the Botanists' Guide, on the authority of Teesdale The late Dr. Wasse, also, supposed that he had found it near the Ure at Hutton Conyers; but it is probable that in both cases S. verbenaca was mistaken for this species.

Native.

LYCOPUS.

801. L. EUROPÆUS, Linn.

Native.

British.

Native.

English

English.

English.

MENTHA.

802.	M. ROTUNDIFOLIA, Linn.	Native.	English.
	Studley Woods— <i>Rev. J.</i> sandy place— <i>Robson</i> , (B <i>Inehbald</i> , (Phyt. iii. 448.)	Dalton. Saltburn, . G. 698.) Adwick	by the sea in a dry , near Doncaster— <i>P</i> .
803.	M. Sylvestris, Linn.	Native.	$\mathbf{English}.$
	Mickley barrows, near Ri	pon—T. Simpson.	
804	M. VIRIDIS, Linn.	Denizen.	English.
Riverbanks and damp places; not unfrequent. Ditches and banks of the Ure, near Ripon—W. Brunton. Banks of the river Swale, half a mile from Copgrove towards Newby—Rev. J. Dalton, (B. G. 678.) Between Spennithorne and Harmby—Rev. R. Pulleine. Cot- terfoss; Hazel Bush, and roadside beyond Strensall, near York— O. A. Moore. In the lane between Sand Hutton and Upper Helmsley —H. Ibbotson. Between Kirby Wiske and Mawnby—T. Simpson. Sowerby lane and other places near Thirsk. Might probably be considered a true native without much risk of error.			
805.	M. PIPERITA, Linn.	Native.	English.
	In similar situations; fre	-	
806.	M. AQUATICA, Linn.	Native.	British.
	In similar situations; co both this species and a fo usually ranged here as a v S. Thompson, J. Backhou occur near Malton. (Vide	rm of M. sativa. M variety, grows in the se, Jun. ; and has a	I. citrata, <i>Ehrh.</i> , now vicinity of Ingleton—
807.	M. SATIVA, Linn.	Native.	English.
-	M. hirsuta in part, acutifol situations; not unfrequen "Sole," grows at Belcomb	nt in some of its f	orms. M. pratensis,
808.	M. ARVENSIS, Linn.	Native.	British.
809.	M. PULEGIUM, Linn.	Native.	English.
	In great abundance by th <i>Shipley</i> . On Stockton con	e roadside between f nmon, near York— J	York and Haxby—A. . Backhouse, Jun.
	л	NITWATIN	
	THYMUS.		

S10. T. SERPYLLUM, Linn, Fries. Native. British. Amongst the moorlands and in dry, heathy situations; plentiful.
S10b. T. CHAMÆDRYS, Fries. Native. British. Tilmire, near York—H. Ecroyd Smith. Howe hill, near Malton— M. B. Slater. Perhaps it may not be uncommon in similar situations to the preceeding in the lower zone, but at present I can only quote for it the two localities mentioned above. Doubless a truly distinct species.

100

ORIGANUM.

Native.

811. O. VULGARE, Linn.

CALAMINTHA.

- 812. C. Acinos, Clairv. Native. British. Et seq. Thymus, Flora, 84.
- Native. English. 813. C. NEPETA, Clairv. In the neighbourhood of Malton-Teesdale. At Cookridge-Rev. W. Wood, (B. G. 699.) Tanfield, near Bedale, on the magnesian limestone—T. Simpson.
- 814. C. OFFICINALIS, Manch. Native. English. Thymus Calamintha, Flora, 84.
- Native. British. 815. C. CLINOPODIUM, Spenn. Clinopodium vulgare, Flora, 84. Hedgebanks and borders of fields ; frequent.

TEUCRIUM.

818. T. SCORODONIA, Linn. Native. 819. T. SCORDIUM, Linn. English. The locality for this species is near Richmond, and not in Wharfdale, as stated in Flora, page viii.

821. T. CHAMÆDRYS, Linn. Incognit. A plant is mentioned in the Botanist's Guide under the name of "Ajuga Chamædrys," as having been found by Dr. White, "on walls near York." Probably this species is intended, but it has not been seen recently.

AJUGA.

822. A. REPTANS, Linn. Native. British. BALLOTA. 825. B. NIGRA, Linn. Native. English. LEONURUS. 826. L. CARDIACA, Linn. Denizen. English. LAMIUM.

827.	L. GALEOBDOLON,	Crantz.	Native.	English.
	Galeobdolon luter	um, Flora, 83.		-

British.

British.

Native.

828. L. ALBUM, Linn.	Native.	British.
829. L. MACULATUM, Linn.	Alien.	
Naturalised in Kildale woods,	Cleveland, $1852 !- Wm$.	Mudd.
830. L. AMPLEXICAULE, Linn.	Native.	British.
831. L. PURPUREUM, Linn.	Native.	British.
831b. L. INCISUM, Willd.	Native.	British.

GALEOPSIS.

832. G. LADANUM, Linn.	Native.	English.			
833. G. OCHROLEUCA, Lam.	Colonist.	Local.			
G. villosa, Flora, 83. Con dant: varying with whi Smith.	mfields at Cantley, nea te and purple-tipped f	r Doncaster; abun- dowers— <i>Rev. G. E.</i>			
834. G. TETRAHIT, Linn.	Native.	British.			
G. bifida, <i>Bonning</i> and <i>Koch</i> , placed under this species in Babing- ton's Manual, occurs in cultivated fields near Thirsk and elsewhere. Fries (<i>vide</i> Summa. Veg. Scand. i. 14) regards it as the true Tetrahit of Linnæus, and places the plant usually described under that name by modern authors as a species doubtfully distinct from versicolor, calling it unicolor.					
835. G. VERSICOLOR, Curt.	Native.	British?			
A variety with uniform j lington fields, near York		ccasionally in Hes-			
S	STACHYS.				
836. S. BETONICA, Benth.	Native.	English.			
Betonica officinalis, Flora	, 83.				
837. S. PALUSTRIS, Linn.	Native.	British.			
838. S. SYLVATICA, Linn.	Native.	British.			
$S. \ sylvatica \ and \ germanica$	a, Flora, 82.				
839. S. GERMANICA, Linn.	Alien.				
Naturalised sparingly in a garden at Calvas Hall, near Thirsk. The plant mentioned in the Flora under this name is S. sylvatica.					
840. S. ARVENSIS, Linn.	Native.	British.			
GLECHOMA.					
841. G. HEDERACEA, Linn.	Native.	British.			
	NEPETA.				

842. N. CATARIA, Linn. Native.

 $\mathbf{English}$

MARRUBIUM.

Native.

Native.

843. M. VULGARE, Linn.

PRUNELLA.

844. P. VULGARIS, Linn.

SCUTELLARIA.

845. S. GALERICULATA, Linn. Native. British. 846. S. MINOR, Linn. Native. Atlantic? About Scarborough mere-Theakstone's Guide. Near the high fishpond, Kildale, Cleveland !- W. Mudd.

ORDER LVI. BORAGINACEÆ

MYOSOTIS.

847. M. PALUSTRIS, Linn.

Native. The variety with adpressed hairs (M. strigulosa, Reich.) is not uncommon. It may be easily taken for M. cæspitosa, unless the calvx teeth are examined.

848. M. REPENS. Don.

Woods, and about the margin of streams, especially in hilly districts; frequent. Whaston springs, near Richmond-James Ward. Banks of Maizebeck, Teesdale, and near Keighley !-- J. Backhouse, Jun. Woods near Scarborough !-- W. Bean. Kildale, Roseberry Topping, and other places in Cleveland !-- W. Mudd. Banks of Tees, below Cronkley Scarrs. Woods amongst the Hambleton hills; plentiful. Woods at Mount Saint John, and between Kirby Knowle and Thirsk, and other localities.

849. M. CÆSPITOSA, Schultz.	Native.	British.
850. M. Alpestris, Schmid.	Native.	Highland.
High limestone ridges of <i>Backhouse</i> and <i>J. Backho</i>		
851. M. SYLVATICA, Ehrh.	Native.	Scottish.
852. M. ARVENSIS, Hoffm.	Native.	British.
M . arvensis and intermedi	a, Flora, 67.	
853. M. COLLINA, Hoffm.	Native.	British.
Dry hedgebanks; not un	nfrequent.	
854. M. VERSICOLOR, Lehm.	Native.	British.

British.

English

British.

British.

Native.

LITHOSPERMUM.

855. L. OFFICINALE, Linn.	Native.	British?		
856. L. ARVENSE, Linn.	Native.	British.		
857. L. PURPUROCÆRULEUM, Linn.	Alien.			
Naturalised in a wood near Ayton, Cleveland-W. Mudd.				

SYMPHYTUM.

859. S. OFFICINALE, Linn.	Native.	English.
860. S. TUBEROSUM, Linn.	Native.	Scottish.
-		
	BORAGO.	
861. B. officinalis, Linn.	Alien.	
	LYCOPSIS.	
862. L. ARVENSIS, Linn.	Native.	British.
	ANCHUSA.	
864. A. SEMPERVIRENS, Linn.	Denizen.	British.

CYNOGLOSSUM.

866. C. OFFICINALE, Linn. Native. English.

PULMONARIA.

868.* P. officinalis, *Linn.* Alien. Camp Hill, near Bedale!—*M. Hebblethwaite.* And other localities.

ECHIUM.

867. E. VULGARE, Linn.

ORDER LVII. PINGUICULACEÆ.

PINGUICULA.

872. P. VULGARIS, Linn.

Native.

Native.

British.

UTRICULARIA.

875. U. VULGARIS, Linn.	Native.	British.
877. U. MINOR, Linn.	Native.	British.

ORDER LVIII. PRIMULACEÆ.

PRIMULA.

878. P. VULGARIS, Huds.	Native.	British.			
P. elatior, <i>Flora</i> , 75, is a fertile hybrid between this species and the following, not the plant of Jacquin or of later British Authors.					
880. P. VERIS, Linn.	Native.	British.			
881. P. FARINOSA, Linn.	Native.	Scottish.			
A stemless variety grows on Hawkswell moor, near Masham— $Rev.$ R. Pulleine; and with Polygala uliginosa on Cronkley fell !— $James$ Backhouse, Jun.					
	TRIENTALIS.				
884. T. EUROPÆA, Linn.	Native.	Highland.			
	HOTTONIA.				
885. H. PALUSTRIS, Linn.	Native.	English.			
I	LYSIMACHIA.				
000 T	NT- time	D.::4:-1. 9			

886. L. VULGARIS, Linn.	Native.	British?
887. L. THYRSIFLORA, Linn.	Native.	Scottish.
888. L. NUMMULARIA, Linn.	Native.	English.
889. L. NEMORUM, Linn.	Native.	British.

ANAGALLIS.

890. A. ARVENSIS, Linn.	Native.	British?
The pale-flowered variety in cornfields at Bilton, b <i>Moore.</i>		

890b. A. CERULEA, Smith. Colonist. English. Not unfrequent at Adwick, near Doncaster—P. Inchbald. (Phyt. iii. 447.)

891. A. TENELLA, Linn.

Native.

CENTUNCULUS.

892. C. MINIMUS, Linn.

Native.

Native.

Native.

British.

SAMOLUS.

893. S. VALERANDI, Linn.

British.

British.

GLAUX.

894. G. MARITIMA, Linn.

ORDER LIX. PLUMBAGINACEÆ.

ARMERIA.

895. A. MARITINA, Willd. Native. British. Statice Armeria, Flora, 69. Judging from the specimens which I have been enabled to examine in a dried or recent state, the Armeria of the Yorkshire coast line is principally A. pubigera, Boiss; and the plant of the inland localities, A. pubescens, Link.

STATICE.

897. S. LIMONIUM, *Linn.* Native. English. A plant which grows amongst the salt marshes at Coatham approaches S. Bahusiensis, *Fries.*

ORDER LX. PLANTAGINACEÆ.

PLANTAGO.

901. P. MAJOR, Linn.	Native.	British.
902. P. MEDIA, Linn.	Native.	${f English} ?$
903. P. LANCEOLATA, Linn.	Native.	British.
904. P. MARITIMA, Linn.	Native.	British.
905. P. CORONOPUS, Linn.	Native.	British.

LITTORELLA.

906.	L. LACUSTRIS,	Linn.	Native.	<u>с.</u>	-	British.

ORDER LXII. CHENOPODIACEÆ.

CHENOPODIUM.

908. C. OLIDUM, Linn. "Marked in a list of plant. Denny of that town"—H garden-ground, Bootham, Y	. C. Watson, in li	Leeds district, by Mr. tt., 1854. A weed in
909. C. POLYSPERMUM, Linn. C. acutifolium, Flora, 88 and 315.) Waste ground near	d 145, is erroneous	
910. C. URBICUM, <i>Linn</i> . In the streets of Redcar, n	Native. ear the railway sta	English. tion, 1849.
911. C. RUBRUM, <i>Linn.</i> Cultivated ground and w prostrate form amongst the		
912. C. MURALE, <i>Linn</i> . In the streets at Bootham	Native. and Clifton, York.	English.
914. C. ALBUM, <i>Linn</i> . The variety C. viride, <i>Linn</i>	Native. , is common on cul	British. tivated land.
915. C. FICIFOLIUM, Linn. In similar situations to the Brafferton—Rev. E. Gray. and other localities.	Native. 9 preceeding ; rare. Roadside between	Germanic Waste ground near Woodend and Thirsk,
916. C. GLAUCUM, Linn. Waste ground near York—	Native. J. Backhouse.	English.
917. C. Bonus-Henricus, Linn.	Denizen.	British?
AT	RIPLEX.	
918. A. PORTULACOIDES, Linn. Waste ground near the sea		English. th—J. Backhouse, Jun.

Coatham marshes!—W. Foggitt. Near Hull—J. Kitching. 920. A. ARENARIA, Woods. Native. British.

A. laciniata, Flora, 68 !

921. A. BABINGTONH, Woods. Native. British. Middlesborough, Coatham, and Redcar, and probably along the coast.

922. A. HASTATA, *Linn.* Native. British. *A. patula, Flora*, 88. Cultivated and waste land; everywhere plentiful.

- 922b. A. DELTOIDEA, *Bab.* Native. British. In similar situations to the preceeding; less frequent. Waste ground near Hull—*C. C. Babington.* Near York—*J. Backhouse, Jun.* Norby and other places near Thirsk.
- 923. A. ANGUSTIFOLIA, Smith. Native. British. In similar situations; common. A tall narrow-leaved Atriplex, with panicled spikes, which grows amongst the Coatham marshes, is probably A. erecta of authors, which I have also had reported from the vicinity of Hull—C. C. Babington; and Heslington fields, near York—O. A. Moore, and J. Backhouse, Jun.
- 924. A. LITTORALIS, *Linn.* Native. English. Waste ground near Hull—*C. C. Babington.* Plentiful about Middlesborough and the Coatham marshes. A. littoralis and marina, of authors, both occur; but seem to be connected by intermediate stages of transition.

BETA.

925. B. MARITIMA, Linn.

SALSOLA.

926. S. KALI, Linn.

Native.

Native.

Native.

British.

SCHOBERIA.

927. S. MARITIMA, Meyer. Chenopodium, Flora, 88.

SALICORNIA.

029. S. HERBACEA, Linn.	Native.	British.
S. procumbens, Smith, is plentiful amongst Coatham marshes.		
930. S. RADICANS, Smith.	Native.	Germanic.
On the banks of som	e of the salt water d	litches in Coatham

marshes!-W. Mudd. Discovered in 1852.

ORDER LXIII. POLYGONACEÆ.

POLYGONUM.

931.	P. BISTORTA, Linn.	Native.	British.
932.	P. VIVIPARUM, Linn.	Native.	Highland.
933.	P. AMPHIBIUM, Linn.	Native.	British.

British.

935. P. LAPATHIFOLIUM, Linn. Cultivated ground and waste a variety of this species some	places; common. P nod	British. osum, <i>Pers.;</i>	
934b. P. LAXUM, E. B. S. Cultivated fields between Hav not unfrequent, but doubtfull ceeding.	wnby and Laskill, Bilsdal		
935. P. PERSICARIA, Linn.	Native.	British.	
936. P. MITE, Schrank. Native. English. Banks of the Foss, near York—W. Borrer. Very plentiful about the great ditch on Knavesmire, near York !—O. A. Moore, J. Back- house, Jun.			
937. P. Hydropiper, Linn.	Native.	British.	
938. P. MINUS, Huds.	Native.	English.	
939. P. AVICULARE, <i>Linn.</i> Native. British. A much branched maritime form, probably P. littorale, of authors, grows amongst the Coatham marshes.			
P. FAGOPYRUM, Linn.	Alen.		
941. P. Convolvulus, Linn.	Native.	British.	

A variety with winged perianth segments is not unfrequent.

RUMEX.

943. R. HYDROLAPATHUM, Linn.	Native.	English.
944. R. CRISPUS, Linn.	Native.	British.
944.* R. AQUATICUS, Linn.	Native.	Scottish.

River banks and road sides, especially in the hilly districts; locally plentiful. Banks of the Ouse, Acomb and Clifton ings, near York, where it was discovered by Mr. Borrer. Near Settle—J. Backhouse, Jun. Near Hawes, Wensleydale—O. A. Moore. Banks of the Swale, near Richmond—J. Ward. Ditches near Kirby Wiske—T. Simpson. Wince bridge, Holwick, and other places in Teesdale.

945. R. PRATENSIS, M. et K. Native. English.
River banks and waste ground; rare. Easby, near Richmond—J. Ward. Banks of the Foss near Earsley bridge, Heworth moor, and near Hawes, Wensleydale—O. A. Moore. Fields near the Foss at York—J. Backhouse, Jun. Banks of Codbeck, Blakey bridge, and other places near Thirsk.

947. R. OBTUSIFOLIUS, Linn.	Native.	British.
948. R. SANGUINEUS, Linn.	Native.	British.
Roadsides and waste ground	l; common.	
948.* R. CONGLOMERATUS, Murr.	Native.	British.
R. acutus, Flora, 142.		

950. R. MARITIMUS, Linn.	Native.	English.
Bury hills, near Kirkling	$\operatorname{gton} \operatorname{!} M.$ Hebblethwa	vite.
950b. R. palustris, Smith.	Native.	English.
By the Foss, near Peash single plant on Knavesn at Pickhill, near Bedal <i>A. Shipley.</i> It is not im species * are confused in R. Steinii of Becker. T seen (vide supra) is poss	nire, near York— J . E le!— T . Simpson. Se probable that under to Britain, viz. R. lime the only Yorkshire sp	<i>Cackhouse, Jun.</i> Ditch acroft, near Leeds— this name two distinct psus of Thuillier, and
R. SCUTATUS, Linn.	Incognit.	
The Silverdale locality.	on faith of which th	is species is admitted

this species is admitted as a naturalised Yorkshire plant in the Cybele Britannica, is in Lancashire.

951. R. Acetosa, Linn.	Native.	British.
952. R. Acetosella, Linn.	Native.	British.

OXYRIA.

953. O. RENIFORMIS, Hook.

Incognit.

Mountains in the north and west ridings-Teesdale. "The only locality I ever heard of is the foot of Ingleborough; but I never saw it there, and think it was probably a mistake "-J. Backhonse, in litt. 1854. Admitted as a native of Yorkshire in the Cybele Britannica; but is desirable that some special locality should be ascertained, before it can be received with confidence.

ORDER LXIV. ELEAGNACEÆ.

HIPPOPHAE.

954. H. RHAMNOIDES, Linn. Native. Germanic. Amongst the coast sandhills at Lythe, near Whitby, 1852! - W.

* I have subjoined a translation from Koch's Synopsis, of the diagnostic characters of these two supposed species.

"R. LIMOSUS (Thuill. par. 182). Enlarged petals, ovate oblong, with two setaceous teeth on each side, but quite entire at the elongate lanceolate apex: each bearing a tubercle: teeth shorter than the enlarged petals: whorls somewhat remote leafy: leaves linear lanceolate or elongate lanceolate, narrowed into the petiole. R. maritimus, Hoffm not Linn. R. palustris, Koch.

"R. STEINII (Beck. fl. v. Frankf. 165). Enlarged petals, ovate, with two setaceous teeth on each side, but quite entire at the elongate apex: each bearing a tubercle: teeth shorter than the enlarged petals: whorls remote, lower leafy, upper naked: radical leaves broadly oblong, with a cordate base: stem leaves lanceolate from a rounded base, upper lanceolate. Allied to R. conglomeratus and sanguineus, but differing by the subulate dentate teeth of its perigone; and from R. limosus by its perennial root, and by its two or three times broader root leaves, with cordate bases."

Mudd. Probably this is the same station as the one mentioned in the Flora; but it is intimated in the Cybele Britannica, that it is desirable that the growth of this species in Yorkshire should receive modern verification.

ORDER LXV. THYMELACEÆ.

DAPHNE.

955. D. LAUREOLA, Linn. Native. English. Denizen. English. 956. D. MEZEREUM, Linn.

ORDER LXVII. ASARACEÆ.

ASARUM.

Native? 958. A. EUROPÆUM, Linn. Local. It is stated that this plant is now eradicated in both the stations mentioned in the Flora. It is reported to have occurred in the woods near Newby Wiske.

ARISTOLOCHIA.

959. A. CLEMATITIS, Linn.

Alien. Naturalised near the old castle in Mulgrave woods, near Whitby !--W. Mudd.

ORDER LXVIII. EMPETRACEÆ.

EMPETRUM.

960, E. NIGRUM, Linn.

ORDER LXIX. EUPHORBIACEÆ.

EUPHORBIA.

962. E. HELIOSCOPIA, Linn.

Native.

Native.

British.

Scottish.

963.	E. PLATYPHYLLA, Linn.	Colonist.	English.
,	Cornfields and cultivated land On arable land at Adwick, n with seedcorn— <i>P. Inchbald</i> (— <i>O. A. Moore.</i> Haxby, near and Headingley, Leeds— <i>A. S</i>	; rare. Near Terrington ear Doncaster; no doubt Phyt. iii. 448). Fields ne York, and in a field be	-R. Spruce. introduced ear Rawcliffe
964.	E. HIBERNA, Linn.	Alien.	
	Naturalized in Kildale woods,	Cleveland $!-W.$ Mudd.	
968.	E. CYPARISSIAS, Linn.	Alien.	
	Naturalized on the Cliff rigg mires and other places near E	; Ayton !— W . Mudd ; an Sedale !— T . Simpson.	d on Snape
971.	E. EXIGUA, Linn.	Native.	$\mathbf{English.}$
972.	E. PEPLUS, Linn.	Native.	British.
973.	E. LATHYRIS, Linn.	Alien	
Naturalized about Newton, between Ayton and Guisborough!W. Mudd. About Newton-le-Willows, near Bedale!T. Simpson; and amongst the Middlesborough ballast hills!M. Umpleby.			
974.	E. AMYGDALOIDES, Linn.	Native.	English
	In a copse between Bilton $Moore$.	and Wighill park, near	York—O. A.
	BU	XUS.	-
975.	B. SEMPERVIRENS, Linn.	Alien.	
	MERCU	URIALIS.	-
976.	M. PERENNIS, Linn.	Native.	British.

977. M. ANNUA, *Linn.* Alien. Naturalized amongst the Middlesborough ballast hills, 1852!-W. *Mudd.*

ORDER LXX. URTICACEÆ.

URTICA.

978. U. URENS, Linn.Native.British.979. U. DIOICA, LinnNative.British.

PARIETARIA.

982. P. OFFICINALIS, *Linn.* Native. British. All the Yorkshire specimens of Pellitory which I have been enabled to examine either in a recent or dried state have belonged to P. diffusa, Koch.

HUMULUS.

983. H. LUPULUS, Linn.

ULMUS.

984. U. MONTANA, Smith. British. Woods and hedgerows; much more frequent than the following species, especially in more or less elevated situations. Unquestionably a true native.

985. U. SUBEROSA, Ehrh. Native? English. U. suberosa, Flora, 90, and U. campestris, Flora, 91. In similar situations in the lower districts of the county. Probably a true native, but open to some slight suspicion.

ORDER LXXI. AMENTIFERÆ.

QUERCUS.

988a. Q. PEDUNCULATA, Willd.

988c. Q. SESSILIFLORA, Salisb.

Woods and hedgerows, especially in more or less elevated situa-tions; less frequent than the preceeding. Intermediate forms occur occasionally.

FAGUS.

989. F. SYLVATICA, Linn.

CASTANEA.

Alien.

Alien.

C. VULGARIS, Lam.

CARPINUS.

990. C. BETULUS, Linn.

Hedgerows and plantations; not unfrequent.

CORYLUS.

991. C. AVELLANA, Linn. н

Native.

British.

British. British.

English.

English.

Native.

Native.

Denizen?

Native.

Denizen.

ALNUS.

Native.

Native.

992. A. GLUTINOSA, Linn.

BETULA.

993. B. ALBA, Linn.

B. pendula, Roth, B. glutinosa, Wallr., and B pubescens, Ehrh., ranged here as varieties in the London Catalogue, all occcur coccasionally. There appears, however, considerable probability that we possess two truly distinct species, viz.,--1, B. verucosa, *Ehrh.*, (B. alba, *Koch* and *Babington*,) of which B. pendula, *Roth*, is a condition or variety : and 2, B. glutinosa, of *Wallroth* and *Fries*, of which B. pubescens, *Ehrh*, is a condition or variety. Of these two supposed species, the last is the most plentiful in Yorkshire, especially amongst the moorlands.

POPULUS.

995. P. ALBA, Linn.	Native.	British.
Riverbanks and he	dgerows; frequent.	
005 D 7'	NT /*	D 1

997. P. TREMULA, Linn. Native. Woods and hedgerows; common.

998. P. NIGRA, Linn. Denizen? English. Riverbanks and hedgerows; frequent; but usually evidently planted. P. monilifera and dilatata are sometimes planted in similar situations.

SALIX.

Native. 999. S. PENTANDRA, Linn. Riverbanks and marshy ground; frequent, both in the central vale and amongst the moorlands.

Native. 1001. S. FRAGILIS, Linn.

- a. S. decipiens, Hoffm. Hedge between Thirsk and South Kilvington; sparingly.
- b. S. FRAGILIS, Linn. Riverbanks and hedgerows; common.
- c. S. RUSSELLIANA, Aut. Ang.

Easby, near Richmond—James Ward. (Salictum Britannicum, No. 55.*) Dr. Anderssen refers this to S. fragilis. He suggests that the true Russelliana of Smith is identical with a distinct species, S. viridis of Fries.

*Specimens of many of the Yorkshire Willows were issued in the Rev. J. E. Leefe's "Salictum Britannicum.". A series of notes upon these by Dr. Anderssen, the celebrated Swedish Salicetist and author of the "Salices Lapponiz," may be found in the Botanical Gazette, vol. iii. p. 57.

British.

British.

British.

Scottish.

- · Native. English? 1002. S. ALBA, Linn. In situations similar to the preceding; equally frequent. The variety S. cærulea, Smith, occurs occasionally.
- English. 1002.* S. VITELLINA, Linn. Native. In similar situations; rare. In osieries, Teesdale, (B. G., 718.) Banks of the Leven, near Stokesley !- W. Mudd. Vide also Flora, 143.
- Incognit. 1003. S. UNDULATA, Ehrh.

S. lanceolata, Flora, 91. Doubtless erroneous.

- 1004. S. TRIANDRA, Linn. Native. English. Riverbanks and osier grounds; frequent. S. triandra, Curt., (S. B. 8), from Skeeby, near Richmond, Dr. Anderssen regards as exactly the true amygdalina of Linnæus.
 - c. S. AMYGDALINA, Smith.

Hedges and banks of ditches-Teesdale, (B. G., 718.) Banks of the Foss at Huntington, near York-O. A. Moore.

S. ACUTIFOLIA, Willd. Native.

Bank of the Ure, near Wensley, 1831-J. Ward. Airyholme Wood and banks of the Leven, near Ayton (a single bush each in three localities) !- W. Mudd. Discovered in 1852. For an account of this species vide Phytol., vol. v. page 33.

Native. 1005. S. PURPUREA, Linn. English. S. Lambertiana and purpurea, Flora, 92. About Beverley-Teesdale. By Nunwick, near Ripon-W. Brunton, (B. G., 717.) Banks of the Swale, near Richmond -James Ward. (ramulosa, Borr., S. B., 11, 12, 13. Lambertiana, Smith, S. B., 14.) Near Brompton-on-Swale (Woolgariana)-James Ward. Between Mickley and Tanfield-T. Simpson. Banks of the Skell, between Studley and Ripon. Banks of Codbeck, between Dalton and Sowerby. (Lambertiana.)

- 1005.* S. HELIX, Smith, Linn? Native. English. Banks of the Tees, near Blackwell bridge !- W. Mudd. Banks of Codbeck, between Thirsk and Kilvington, and near its junction with the Swale. Banks of the Skell, between Ripon and Studley. Osier grounds near Little Carlton (probably planted) Moatwood, near Thirsk, and in the wood above Kirby Knowle. Banks of the Swale, above Skipton bridge. Very doubtfully distinct from the preceding as a species.
- 1006. S. RUBRA, Huds. Native. English. Banks of the Swale, below Topcliffe-W. Foggitt. Banks of the Skell, between Studley and Ripon. Banks of Codbeck, between Thirsk and Kilvington. Osier grounds near Thirsk and Little Carlton (probably planted).
- 1006.* S. FORBYANA, Sm., Borr. Native. English. Between Tanfield and Mickley-T. Simpson. Banks of the Cod-

Local.

Thirsk and Woodend. Between Bedale and Snape. 1007. S. VIMINALIS, Linn. Native. British. Riverbanks, hedgerows, and damp places; common. Native. British? 1007.* S. STIPULARIS, Smith. Near Ripon-W. Brunton (B. G. 718). It is desirable that the occurrence of this species should receive modern confirmation. Native. 1008. S. SMITHIANA, Willd. English. In similar situations to the preceding; probably not unfrequent. Near Richmond-James Ward (S. B. 27, 28, 29, fide Anderssen). S. rugosa, S. B. 31, 32, Dr. Anderssen refers to the next species. In a damp wood between Thirsk and Woodend. Banks of the Codbeck, and hedges between Thirsk and Kilvington. (Smithiana and ferruginea) 1009. S. ACUMINATA, Smith. Native. English. Near Richmond-Jas. Ward (S. B. 31, 32, fide Anderssen). Incognit. S. SERINGEANA, Gaud. To this species* Dr. Andersen suggests that S. B. 39, collected near Richmond-Jas. Ward, should be referred. It merits further investigation. Native. 1010. S. CINEREA, Linn. British. S. cinerea and oleifolia, Flora, 92. S. aquatica, Flora, 143. Riverbanks and damp places; common. 1011. S. AURITA, Linn. Native. British. Damp woods and hedgerows; frequent. Native. British. 1012. S. CAPREA, Linn. Woods, hedgerows, and damp places; common. S. sphacelata, Smith, probably a variety of this species, occurs in the neighbourhood of Richmond-J. Ward. Native. 1013. S. NIGRICANS, Linn. Scottish. S. Andersoniana, Flora, 92. To this species Dr. Anderssen refers S. hirta, S. B. 67, from Ravensworth, near Richmond-James Ward. Near Weathercote, Bilsdale!-A. Watson. Damp places, and along the banks of the stream at the bottom of Flazendale, near Rievaulx; plentiful (Andersoniana). 1014. S. LAURINA, Smith. Native. Scottish. S. bicolor, Flora, 92. Near Richmond-Jas. Ward (S. B. 73). No. 43, S. B., is a doubtful form from the same vicinity, referred by Dr. Anderssen to this species.

* I subjoin a diagnosis of this species, translated from Koch's Synopsis:

"S. SERINGEANA (Gaud. fl. helv. 6, p. 251). Aments sessile arcuate bracteated at the base : capsules stalked tomentose, lanceolate from an ovate base: pedicel twice the length of the gland: style elongate: stigmas bifid: leaves lanceolate oblong acuminate crenulate, roughly veined and covered with white tomentum beneath: stipules ovate acute. Banks of rivers in sub-alpine vallies."

116

1015.	\mathbf{S}	PHYLICIFOLIA, Linn.	Native.	Scottish.
		S. Croweana, Flora, 93. To the plants issued in the Sali numbers, viz — "68, 69, rup tenuior, Borr.; 74, 76, 77, Forbes; 80, 81, 83, Croweana, pla, Walk.;" all collected in and doubtfully, "75, propin in Wensleydale—Jas. Ward. to Cronkley; plentiful. (Cr	ctum under the followin estris, <i>Donn.</i> ; 70, 71, ru Weigeliana, <i>E.B.S.</i> ; 79, <i>Smith</i> ; 82, nitens, <i>And.</i> ; the vicinity of Richmon qua, <i>Borrer</i> ," collected n Bank of the Tees abov	g names and upestris? 72, Weigeliana, 84, 85, tetra- d— <i>J. Ward</i> : ear Wensley, e Middleton,
1017.	S.	FUSCA, Linn.	Native.	$\operatorname{British}$.
		S. repens and prostrata, Flore Heaths and riverbanks; free	a, 92. S. argentea and fus quent.	ca, Flora, 93.
	s.	ROSMARINIFOLIA, Linn.	Incognit.	
		The localities mentioned w doubtless erroneous.	inder this species in th	ne Flora are
1023.	s.	MYRSINITES, Linn.	Incognit.	
		On the slope of a high hill k (B. G. 718). Probably error tion.		
1026.	\mathbf{S} .	RETICULATA, Linn.	Incognit.	
		Reported by Ray as growing but doubtless he mistook S.	g upon Whernside and I herbacea for the present	ngleborough, t species.
1027.	S.	HERBACEA, Linn.	Native.	Highland.
		Ingleborough, and other hi ridings— <i>Teesdale</i> (B. G. 718 <i>R. Clapham.</i>	igh mountains in the no 8). On Whernside, nea	rth and west r Ingleton—

MYRICA.

1028. M. GALE, Linn.

Native.

British.

ORDER LXXII. CONIFERÆ.

PINUS.

1029. P. SYLVESTRIS, Linn.

JUNIPERUS

1030. J. COMMUNIS, Linn.

Native.

Alien.

TAXUS.

Native. British. 1031. T. BACCATA, Linn. Near Fountain's Abbey there is a yew tree estimated by De Candolle to be about 1300 years old.

ORDER LXXIII. ORCHIDACEÆ.

SPIRANTHES.

1033. S. AUTUMNALIS, $Rich$.	Native.	British.
Neottia spiralis, Flora, 100.		

NEOTTIA.

1036. N. Nidus-avis, Rich.	Native.	British
Listera, Flora, 101.		

LISTERA.

1037. L. CORDATA, Brown.	Native.	Scottish.
1038. L. OVATA, Brown.	Native.	British.

EPIPACTIS.

1039.	Ε.	LATIFOLIA,	Swartz.		Native.	
		Shady woo	ds and t	thickets;	not unfrequent.	

1039.* E. MEDIA, Fries. Native. English. "Mr. C. C Babington informed me that he had a specimen, picked near Sheffield, by the Rev. W. W. Newbould"—H. C. Watson in litt., 1854. Friarage woods, on the Yorkshire side of the Tees, near Yarm !--- W. Foggitt.

1039.* E. OVALIS, Bab. Native. British. E. rubra, Flora, 101, is this species, which grows also at Mackershaw woods, near Ripon-O. A. Moore; and at Nosterfield limekilns!-T. Simpson, M. Hebblethwaite.

1040. E. PALUSTRIS, Swartz.	Native.	British.
1042. E. ENSIFOLIA, Swartz.	Native.	English.
Hawnby—T. J. Foggitt;	and Beckdale, Scarborough !-	Gibson, (Phyt., ii. 374.) near Helmsley—John H. -E. Bean. Guisborough r!—I. Hartas.

1043. E. RUBRA, Swartz.

Incognit.

ORCHIS.

1045.	O. MORIO, Linn.	Native.	English.
1046.	O. MASCULA, Linn.	Native.	British.
1048.	O. USTULATA, Linn.	Native.	English.
1051.	O. PYRAMIDALIS, Linn.	Native.	English.
1052.	O. LATIFOLIA, Linn.	Native.	British.
·	This includes three suppose other continental authors, e	ed species, as defined b ach of which occurs occa	y Koch and sionally.
1053.	O. MACULATA, Linn.	Native.	British.
	GVMNA	DENIA	

IMNADENL

British. 1054. G. CONOPSEA, Brown. Native.

HABENARIA.

1055.	H. BIFOLIA, Brown.	Native.	British.
	Grassy fields and	heathy pastures, especially	amongst the moor-
	land districts ; no	t unfrequent.	
1055h	H. CHLOBANTHA, BO	b. Native.	British.

In similar situations to the preceeding; equally frequent. This species is included under H. bifolia, Flora, 102.

1056. H. VIRIDIS, J	Brown.	Native.	British.
1057. H. Albida, H	Brown.	Native.	Scottish.

ACERAS.

1058. A. ANTHROPOPHORA, Br. Incognit. "It is reported to have been discovered by Mrs. Broadrick, in Hamphole wood, near Doncaster. While it would be satisfactory to me to obtain a verification of this report, indirectly conveyed to the to obtain a vertication of alleged habitat near Doncaster, does not appear so unlikely as to warrant its rejection without further inquiry; although, for the present, I prefer to hold it un-certain "-H. C. Watson, (Cyb. Brit., ii. 432).

HERMINIUM.

1059. H. MONORCHIS, Brown.

Incognit.

"In the first volume of the New Botanist's Guide, it is given for Yorkshire dubiously; but confirmed in the second volume, p. 657, thus: 'Mr. Winch intimates that he has a Yorkshire specimen received from Mr. Bicheno '"-H. C. Watson, in litt., 1854.

OPHRYS.

Native.

1060. O. APIFERA, Huds.

Native? 1061. O. ARANIFERA, Huds. Germanic. It is desirable that the stations mentioned for this species in the Flora, which rest upon old authority only, should receive modern verification. (Vide Cyb. Brit., ii. 435).

1062. O. MUSCIFERA, Huds. Native.

MALAXIS.

1063. M. PALUDOSA, Swartz. Incognit. Formerly found opposite the High Force—J. Backhouse. The station mentioned in the Flora is on the Durham side of the Tees.

CYPRIPEDIUM.

1065. C. CALCEOLUS, Linn. Native. Local. Beckdale, near Helmsley, 1844-G. S. Gibson. "I gathered a specimen in flower, June 12th, 1849; but have only seen leaves since "-John Phillips, Helmsley, 1854. Kildale woods, Cleveland, 1852 !- W. Mudd.

ORDER LXXIV. IRIDACEÆ.

IRIS.

1066. I. FOETIDISSIMA, Linn. Native. English. In ditches at Little Nunwick and Kirklington, near Ripon !-- T. Simpson, M. Hebblethwaite.

1067. I. PSEUDACORUS, Linn. Native.

CROCUS.

1069.	C. VERNUS, Willd.	Alien.
1070.	C. NUDIFLORUS, Smith.	Alien.
	C. AUREUS, Sibth.	Alien.
	An occasional rambler from	garden cultivation.

Germanic.

Germanic.

ORDER LXXV. AMARYLLIDACEÆ.

NARCISSUS.

1071. N. POETICUS, Linn. 1072. N. BIFLORUS, Curt.

Alien. N. INCOMPARABILIS, Curt.

In a field between Guisborough and the Spa!—W. H. Clemesha. Thoroughly established in a field between North and South Kilvington, near Thirsk. (Vide Phyt., ii. 600).

Alien?

Native. 1073. N. PSEUDO-NARCISSUS, Linn.

English.

GALANTHUS.

1074. G. NIVALIS, Linn.

ORDER LXXVI. LILIACEÆ.

LILIUM.

1076. L. MARTAGON, Linn.

In the wood behind Mr. Gossip's house, at Thorp Arch; but no doubt planted—S. Hailstone, J. Backhouse. In the wood on the bank of the Swale, below Aisenby, probably the outcast of a garden.

TULIPA

Denizen. 1077. T. SYLVESTRIS, Linn. English. This species is marked as a probable alien in the Cybele Britannica, but would appear to possess strong claims to be considered indigenous to the locality mentioned in the Flora. (Vide also Phyt., ii. 330).

FRITILLARIA.

Incognit.

1078. F. MELEAGRIS, Linn.

ALLIUM.

1081. A. SCORODOPRASUM, Linn. Native. A. arenarium, Flora, 106.

Scottish.

Alien.

Alien.

Alien.

1082. A. OLERACEUM, Linn. Native. English. A. carinatum, Flora, 106, (Smith, not Linn.,) is a variety of this species.

Native.

Native.

Native.

1083. A. VINEALE, Linn.

Alien or Incognit. 1085. A. Schænoprasum, Linn. This species grows with Sedum reflexum, on garden walls near Ricvaulx. The Kirby Moorside station requires modern verification.

1086. A. URSINUM, Linn.

GAGEA

1087. G. LUTEA, Ker. Ornithogalum, Flora, 106.

ORNITHOGALUM.

1089.	O. NUTANS, Linn.	Alien.
1090.	O. UMBELLATUM, Linn.	Alien.

HYACINTHUS.

1093. H. NONSCRIPTUS, Linn. Native. Scilla, Flora. 107.

British.

Scottish.

British.

RUSCUS.

1097. R. Aculeatus, Linn. Native. English. Woods at Ormesby, near Middlesborough and near Egton, Eskdale; probably introduced at the latter locality !-- W. Mudd. Naturalised in a hedge at Whitcliffe, near Richmond-Jas. Ward.

CONVALLARIA.

1099. C. MAJALIS, Linn.	Native.	Germanic.
1101. C. MULTIFLORA, Linn.	Native.	English.
1102. C. Polygonatum, Linn.	Native.	English.
The Fountain's Abbey s	station is probably erroneous.	

ORDER LXXVI.* TRILLIACEÆ.

PARIS.

1103. P. QUADRIFOLIA, Linn.

Native.

ORDER LXXVII. TAMACEÆ.

TAMUS.

Native.

1104. T. COMMUNIS, Linn.

ORDER LXXVIII. MELANTHACEÆ.

COLCHICUM.

Native.

Native.

1105. C. AUTUMNALE, Linn.

TOFIELDIA.

1106. T. PALUSTRIS, Huds.

ORDER LIX. HYDROCHARACEÆ.

HYDROCHARIS.

1107. H. Morsus-RANÆ, Linn.

English.

ANACHARIS.

1107.* A. Alsinastrum, Bab.

Planted in a pond below the bridge over the Wiske, at Kirby Wiske, near Thirsk. (*Vide* Phyt., iv. 367, 751; v. 55, 80). Undoubtedly identical with Udora canadensis of Nuttall (as it was introduced to this locality direct from America): and therefore his specific name should be retained, having been applied many years previous to that which has been pretty generally adopted in this country.

Native.

Alien.

STRATIOTES.

1108. S. ALOIDES, *Linn.* Native. Germanic. Common in the fens about Doncaster—*P. Inchbald*, (Phyt. iii. 448). In a pond near Knaresborough—*M. Hebblethwaite.* Naturalised in a pond at Leeming lane, near Bedale !—*T. Simpson.*

English.

Highland.

ORDER LXXX. ALISMACEÆ.

ALISMA.

1109. A. Plantago, Linn.	Native.	British.
1110. A. RANUNCULOIDES, Linn.	Native.	British.
1111. A. NATANS, Linn.	Incognit.	
Reported doubtfully by Hornsea.	Teesdale, (B. G., 685), from	the lake at
, and		•

SAGITTARIA.

Native.

Native.

1113. S. SAGITTIFOLIA, Linn.

BUTOMUS.

1114. B. UMBELLATUS, Linn.

TRIGLOCHIN.

1115. T. MARITIMUM, Linn.	Native.	British.
1116. T. PALUSTRE, Linn.	Native.	British.

SCHEUCHZERIA.

1117. S. PALUSTRIS, Linn. Native. Scottish. This species still grows at the old station at Leckby Carr; but may easily be overlooked by those unacquainted with the locality.

ORDER LXXXI. FLUVIALES.

POTAMOGETON.

Native. 1118. P. DENSUS, Linn. English. Ponds and slow streams; not unfrequent in low situations. Native. 1119. P. PECTINATUS, Linn. British. In similar situations; not unfrequent. A maritime form grows in the salt water ditches in the Coatham and Middlesborough marshes.

1119c. P. FLABELLATUS, Bab. Native. English. In the fen ditches between Hull and Hedon-Rev. W. W. Newbould, fide C. C. Babington, (Phyt., iv. 1160).

1120. P. PUSILLUS, Linn. Native. Ponds and slow streams; frequent.

British.

English.

	-	
1120.* P. COMPRESSUS, <i>Linn.</i> In the Foss, near York—	Native. O. A. Moore.	British.
1121. P. GRAMINEUS, "Linn."	Native.	English
1123. P. ZOSTERÆFOLIUS, Schm.	Incognit.	
1124. P. CRISPUS, Linn.	Native.	British.
1125. P. perfoliatus, Linn.	Native.	British.
1126. P. LUCENS, Linn.	Native.	British.
Plentiful in the Foss, Malham Tarn—J. Backho	near York—S. Ha ouse, Jun. In the	<i>ilstone</i> , O. A. Moore. Mere at Scarborough.
1127. P. PRÆLONGUS, Wulf.	Native.	Germanic.
With the preceding speci Gormire, near Thirsk.	ies in Malham Ta	rn—J. Backhouse, Jun.
1129. P. HETEROPHYLLUS, Schreb. Frequent near Bedale!— —O. A. Moore. Plentifu	T. Simpson. Potteri	
 1130. P. LANCEOLATUS, Smith. "Inserted on Mr. Ward New Botanist's Guide; b corrected to P. heterophy Magazine, vol. i., p. 292, found a Potamogeton, 'v without any floating lee heterophyllus "-H. C. W grow in Gormire are nata 	's authority in the but in the second llus. In the Comp Mr. Woods says the vhich I believe to vres.' It was als Vatson in litt., 1854.	volume, the name is anion to the Botanical at in Gormire pool he be P. lanceolatus, but so more probably P. The species which
1131. P. RUFESCENS, Schrad.	Native.	British.
P. fluitans, Flora, 96. Pe Pond at St. Trinnians, ne	ond near Scarborou ear Richmond <i>—Ja</i>	1gh—Jno. S. Rowntree. mes Ward.
1132. P. NATANS, Linn.	Native.	British.
1133. P. OBLONGUS, Viv.	Native.	British.
Pools and ditches, especi	ally in moory plac	es; frequent.
1134. P. plantagineus, Ducr.	Native.	British.
In similar situations; j fields, near York ! <i>C. C.</i> dale and Teesdale <i>J. Ba</i> Baysdale ! <i>W. Mudd.</i>	Babington. On the	moors between Lune-

RUPPIA.

1135. R. MARITIMA, Linn,

Native. The plant so plentiful amongst the Coatham saltmarshes is the true maritima of Linnæus. I am not aware of the occurrence of R. rostellata within the limits of the county; but a considerable portion of our coast line has been as yet only very imperfectly explored.

English?

ZANNICHELLIA.

1136. Z. PALUSTRIS, Linn. Native. British. Ditches and slow streams; frequent. Z. pedicellata, Reich., placed as a variety of this species in Babington's Manual and the London Catalogue, but considered as a distinct species by Fries and other continental authors, has been found in salt water ditches near Hull—C. C. Babington; and in the neighbourhood of Middlesborough—W. Mudd.

ZOSTERA.

1137. Z. MARINÁ, Linn.

Native.

British.

ORDER LXXXII. ARACEÆ.

LEMNA.

1138. L. MINOR, Linn.	Native.	British.
1139. L. GIBBA, Linn.	Native.	English.
1140. L. POLYRHIZA, Linn.	Native.	English.
1141. L. TRISULCA, Linn.	Native.	British.
Ponds and ditches; no	t unfrequent.	

ARUM.

1142. A. MACULATUM, Linn.

ACORUS.

1143. A. CALAMUS, Linn.

Native.

Native.

English.

SPARGANIUM.

1144. S. MINIMUM, Fries. Native. British. Ditch at Pickhill, near Bedale—*T. Simpson.* I have no means of ascertaining whether the localities mentioned in the Flora belong this species or the true natans. One of these (probably S. minimum) also occurs at Buttercrambe and other places near York-O. A. Moore. Most likely both will be found in the county eventually.

1145. S. SIMPLEX, $Huds$.	Native.	British.
1146. S. RAMOSUM, Huds.	Native.	British.

TYPHA.

1147. T LATIFOLIA, Linn. Native. British? 1148. T. ANGUSTIFOLIA, Linn. Native. English. T. MINOR, Smith. Incognit. "In the New Botanist's Guide a second locality was added, through an inadvertence there suggested, viz. in the mere at Scarborough"-H. C. Watson (Cyb. Brit. iii. 36). ORDER LXXXIV. JUNCACEÆ. JUNCUS. British. 1151. J. CONGLOMERATUS, Linn. Native. 1151.* J. EFFUSUS, Linn. Native. British. Roadsides and boggy pastures; common. 1152. J. GLAUCUS, Sibth. Native. English. In similar situations; frequent. 1152.* J. DIFFUSUS, Hoppe. Native. English. In similar situations; perhaps not rare. Near Ilkley!-Geo. S. Gibson. In the fields near the Woodend railway bridge, near Thirsk. Ditches between Newsham and Woodend. 1154. J. MARITIMUS, Smith. Native. British. Near Whitby-Rev. G. E. Smith. Amongst the Coatham saltmarshes, and the sandhills in front of the village. 1156. J. ACUTIFLORUS, Ehrh. Native. British. Damp fields and boggy places; common. 1157. J. LAMPROCARPUS, Ehrh. Native. British. A procumbent rush, much resembling this species, but smaller in size, with all the segments of the perianth acute, which I collected in 1853 near the head of Bilsdale, is perhaps J. nigritellus, D. Don. J. polycephalus, Flora, 109, is a form of J. supinus. 1158. J. OBTUSIFLORUS, Ehrh. Native. English. In similar situations to the two preceding species, but rare. Marsh at Skeeby, near Richmond—Jas. Ward. Askham bogs, near York—O. A. Moore. By the lake above the landslip at Kirby Knowle-Wm. Foggitt. Ditches between Woodend and Newsham near Thirsk, and between Newby Wiske and Kirby Wiske. 1159. J. SUPINUS, Manch. Native. British. J. uliginosus, subverticillatus, and polycephalus, Flora, 109. Watery places; common.

4

1160. J. COMPRESSUS, Jacq. _ Native. British. J. cœnosus, Bich., occurs in the vicinity of Whitby—Rev. G. E. Smith., and is plentiful on the margin of the salt water ditches at Middlesborough and Coatham. Probably it is a variety of this species.

1162. J. BUFONIUS, Linn.	Native.	British.
1163. J. SQUARROSUS, Linn.	Native.	British
1168. J. TRIGLUMIS, Linn.	Incognit.	

Planted upon the sugar limestone on Cronkley fell, by J. Binks, of Middleton-in-Teesdale—J. Backhouse. This species might easily be supposed to be a true native, as it grows in great abundance on the Durham side of the Tees.

LUZULA.

1169. L. SYLVATICA, Bich.	Native.	British.
Et seq. Luciola, Flora, 10 in moorland districts; fu	9, 110. Woods and requent.	riverbanks, especially
1170. L. PILOSA, Willd.	Native.	British.
Woods, thickets, and he	dgebanks; common	i.
1172. L. CAMPESTRIS, Brown.	Native.	British.
1172.* L. MULTIFLORA, Lej.	Native.	British.

L. congesta, Flora, 110. Heaths and moory places; frequent.

NARTHECIUM.

1175. N. OSSIFRAGUM, Huds.

Native.

British.

ORDER LXXXV. CYPERACEÆ.

CYPERUS.

1177. C. FUSCUS, Linn. Native. Germanic. Codhill bog, Guisborough moor, near Roseberry Topping, Cleveland !— W. Mudd. Discovered in 1852.

CLADIUM.

Native.

1178. C. MARISCUS, "Brown."

English.

SCHŒNUS.

1179. S. NIGRICANS, *Linn.* Native. Boggy and watery places; not unfrequent.

RHYNCOSPORA.

1180. R. ALBA, Vahl.

1181. R. FUSCA, Smith.

Incognit. Reported doubtfully by Teesdale, as growing with the last species at Terrington; but the plant he found was probably R. alba, var. sordida, Bab. (vide B. G., 667).

Native.

BLYSMUS.

1182. B. COMPRESSUS, Panz. Native. English. Conisborough, near Doncaster-O. A. Moore. Banks of streams near Rievaulx, and in the dale below Morton House, near Hawnby. Boggy fields between Thirsk and Upsal. Amongst the coast sandhills about Coatham, Redcar, and Saltburn. Aysgarth Force, Wensleydale, and other localities.

SCIRPUS.

1184. S. LACUSTRIS, Linn.	Native.	British.
Ponds and streams;	frequent.	

1184b. S. GLAUCUS, Smith. Native. English. In the salt-water ditches behind the mill at West Coatham, near Redcar. Doubtfully distinct as a species from the preceding.

1186. S. SETACEUS, Linn.	Native.	British.
1190. S. MARITIMUS, Linn.	Native.	British.
1191. S. SYLVATICUS, Linn.	Native.	British.
1192. S. PALUSTRIS, Linn. Eleocharis, Flora, 111.	Native.	British.
1193. S. MULTICAULIS, Smith. Eleocharis, Flora, 111.	Native.	British.
1194. S. PAUCIFLORUS, Lightf.	Native.	British.
1196. S. CÆSPITOSUS, Linn.	Native.	British.
1197. S. ACICULARIS, Linn. Eleocharis, Flora, 111.	Native.	English.
1198. S. FLUITANS, Linn.	Native.	British.

ERIOPHORUM.

1199. E	. VAGINATUM, Linn.	Native.	British.	
	Moory and boggy places; fr	equent.		
1200. E	. ANGUSTIFOLIUM, Roth.	Native.	British.	
	E. polystachion, Flora, 111. similar situations; frequent	E. angustifolium,	Flora, 112	In
I				

1201. E. LATIFOLIUM, Hoppe. Native. British. In the wood near the source of Locker beck, Snailesworth. Boggy fields at the bottom of Flazendale, and about Rievaulx.

Native. 1202. E. GRACILE, Koch. Local. " Near Halnaby, in a small strip of boggy ground mostly covered with brushwood, on the left hand side of the road from Croft, which affords Ranunculus Lingua." J. Woods, (Comp. Bot. Mag., i. 290). Discovered in 1835. Authenticated by Borrer, (Phyt., v. 44); 1854.

Native.

Incognit.

ELYNA.

1203. E. CARICINA, M. et K.

CAREX.

C. DAVALLIANA, Smith.

- Native. 1204. C. DIOICA, Linn. British. Boggy ground, especially in moory places; frequent.
- 1205. C. PULICARIS, Linn. Native. In similar situations; frequent
- 1206. C. PAUCIFLORA, Lightf. Native. Highland. The localities mentioned under this species in the Flora rest upon the authority of Dalton. With reference to the observations in the Cybele Britanica, I may remark that Lilla cross is precisely 1000 feet above the level of the sea; but that the original manuscript record runs, "Banks of Derwent, near Lilla cross, &c.," so that it is probable that the Carex descends considerably lower than 1000 feet.
- 1209. C. STELLULATA, Linn. Native. Damp meadows and boggy places; frequent.

C. BRIZOIDES, Linn. Incognit Studley woods-W. Mac Ivor, fide C. C. Babington. The author of the Manual mentions that he has received a specimen from this locality. I have, however, followed the Cybele Britannica in waiting till the occurrence of the species in Britain is confirmed, before accepting it as a clearly established inhabitant. 1211 C. OVALIS, Good. Native. British. Damp meadows and boggy places; frequent.

Native. 1212. C. CURTA, Good.

- 1212b. C. PERSOONII, "Sieb." Native. Highland. C. vitilis, Fries. Codhill bog, Guisborough moor! and Kildale, Cleveland !- W. Mudd. In a boggy wood near the source of Locker beck, Snailesworth. (Vide Phyt. iii. 731.)
- 1213. C. ELONGATA, Linn. Native. English. Still occurs at the original locality near Rotherham-J. Hardy. Boggy woods at Langwith, near York.

Highland.

British.

British.

1214.	C. REMOTA, Linn.	Native.	British.
1215.	C. AXILLARIS, Good.	Native.	English.
	Carthorpe moor, near Bedal - ponds on Hob moor, near Y	e-T. Simpson. Amongs ork.	t the brick-
1217.	C. INTERMEDIA, Good. Damp meadows and boggy	Native.	English?
1019	C. ARENARIA, Linn.	Native.	British.
1210.	Plentiful amongst the coas Coatham, and Saltburn.		
1219.	C. DIVISA, Huds.	Native?	English.
	It is desirable that the occu shire coast should receive specimen from "a spongy b village of Ramsgill, in Nithe is probably C. schænoides, tained to be a variety of th vestigation, and it would a Winch's station really produ	modern confirmation. og on the edge of the moorsdale," collected in 18461- Host, (C. austriaca, Schk., lis species This merits lso be interesting to as	A flowering or, above the - <i>T. Simpson</i> ,) now ascer- s further in-
1220.	C. MURICATA, <i>Linn</i> . Dry banks; frequent.	Native.	British.
1221.	C. DIVULSA, Good.	Native.	English.
	Cum Hagg wood, Castle H	oward !—H. Ibbotson.	
1222.	C. VULPINA, Linn.	Native.	British.
	Ditches and boggy places;	common.	
1223.	C. TERETIUSCULA, Good.	Native.	British.
	Sleddale, Cleveland !— W. Inchbald, (Phyt., iii. 449). species. C. Ehrhartiana, probably a variety of this s of Malham Tarn. near Sett haps also near Halnaby. (W Phyt., i. 1020.)	The Askham bog plant Hoppe, (C. pseudo-parad species occurs plentifully le—S. Gibson, (Phyt., i. 77	is the next oxa, <i>Gibson</i> ,) by the side (9): and per-
1223.	* C. PARADOXA, Willd.	Native.	Local.
	Heslington fields, near Plentiful in Askham bogs,	York !— <i>R. Spruce, S. T</i> near York.	hompson, &c.
1224.	C. PANICULATA, <i>Linn</i> . Boggy woods and meadows	Native. ; frequent.	British.
1228.	C. VULGARIS, Fries. C. cæspitosa, Flora, 115. D	Native.	British.
	C. GIBSONI, Bab.	Incognit.	
	C. caspitosa, var. chlorocarp. Hebden bridge, said to be Man., iii. 361). If a true s in other places, and deserv	os, Gibs., Flora, 143. We now lost by drainage—S. pecies, this will most lik	oodhay, near Gibson (Bab. ely be found

1229. C	. RIGIDA, Good.	Incognit.	
	A specimen from Ingleborou J. Dalton in York Museum- the occurrence of this speci	<i>—O. A. Moore.</i> It is des es should receive confirma	sirable that
1231. C	. STRICTA, Good.		English.
	Heslington fields, near You monument, Ayton $!-W$. M Scarborough. Amongst the	fudd. Plentiful about th	elow Cook's ne mere at
1232. C	. ACUTA, Linn.	Native.	British.
	Ditches, river banks, and with the perigone bearing a ton, near York— <i>R. Spruce</i> ; paniculate spikes, at the sar	and 1 have also collected a	A variety, n {and Clif- a form, with
С	. Mœnchiana, Reich.	Incognit.	
	"In 1843, I found the Carex den bridge. The plant I thority for the correctness of 23rd, 1847.) The author of that the plant afterwards pr	sent to Dr. Boott, and 1 if the name"—S. Gibson in the Manual informs us (H	nave his au- n <i>litt</i> . (April Phyt. v. 176)
1234. C	. FLAVA, Linn.	Native.	British.
	C. flava and Œderi, Flora, 11 frequent.	.4. Damp meadows and be	oggy places;
1235. C	. EXTENSA, Good.	Native.	British.
1236. C	. PALLESCENS, Linn.	Native.	British.
	Damp meadows; frequent.		
1237. C	. FULVA, Good.	Native.	British.
1238. C	. DISTANS, Linn.	Native.	British.
	On the banks of the salt wa plant mentioned under this nervis.		
1239. C	. BINERVIS, Smith.	Native.	British.
	Moory and heathy places;	frequent.	
1240. C	. LÆVIGATA, Smith.	Native.	English.
	Dallow gill, near Ripon— R	ev. J. Dalton (B. G., 716).	
1241. C	. PANICEA, Linn.	Native.	British.
	Damp heaths and pastures;	common.	
1243. C	. CAPILLARIS, Linn.	Native.	Highland.
1244. C	. LIMOSA, Linn.	Native.	Scottish.
1246. C	. STRIGOSA, Huds.	Native.	English.
	Studley woods, near Ripon- in the locality mentioned	in the Flora (on the auth	Still occurs nority of the
	Rev. J. Dalton)-T. Simpson	<i>i.</i>	
	. SYLVATICA, Huds. Woods heddebanks and d	Native.	British.

Woods, hedgebanks, and damp meadows; frequent.

1248. C. PENDULA, Huds.	Native.	British.
1249. C. PSEUDO-CYPERUS, Linn.	Native.	English.
1250. C. GLAUCA, Scop.	Native.	British.
C. recurva, Flora, 115. Common.	Banks, damp meadow	vs, and roadsides;
1251. C. PRÆCOX, Jacq.	Native.	British.
1252. C. PILULIFERA, Linn.	Native.	British.
Damp meadows and mod	ory places; frequent.	
1255. C. DIGITATA, Linn.	Native.	English.
Levitt Hag wood, near Moore. In the wood at F	Roche abbey—Rev. G	E. Smith (Phyt. iii.
ley woods, near Ripon. Helmsley.	ene banks, Hackfall— . Rocky banks abo	
ley woods, near Ripon.		
ley woods, near Ripon. Helmsley.	. Rocky banks abo	ve Hawnby, near
ley woods, near Ripon. Helmsley. 1256. C. FILIFORMIS, Linn.	. Rocky banks abo Native.	ve Hawnby, near Scottish.
ley woods, near Ripon. Helmsley. 1256. C. filiformis, Linn. 1257. C. Hirta, Linn.	. Rocky banks abo Native. Native.	ve Hawnby, near Scottish. British.
ley woods, near Ripon. Helmsley. 1256. C. FILIFORMIS, Linn. 1257. C. HIRTA, Linn. 1258. C. AMPULLACEA, Good.	. Rocky banks abo Native. Native. Native.	ve Hawnby, near Scottish. British. British.
ley woods, near Ripon. Helmsley. 1256. C filiformis, Linn. 1257. C. HIRTA, Linn. 1258. C. AMPULLACEA, Good. 1259. C. VESICARIA, Linn.	. Rocky banks abo Native. Native. Native. Native. Native. laces; not unfrequent. chiana, DC., C. spadice	ve Hawnby, near Scottish. British. British. British. British. The variety with

English.

ORDER LXXXVI. GRAMINA.

DIGITARIA.

1265. D. HUMIFUSA, Pers. Alien. Amongst the Middlesborough ballast hills, 1852!-W. Mudd.

PHALARIS

1269.	Ρ.	ARUNDINACEA,	Linn.	Native.	
			-		

1270. P. CANARIENSIS, Linn. Alien. A form with variegated leaves sometimes occurs amongst the Middlesborough ballast hills.

ANTHOXANTHUM.

1271. A. ODORATUM, Linn.

Native.

British.

133

PHLEUM.

1273. P. pratense, Linn.	Native.		B	ritish.
Meadows and pastures;	common. I	P. nodosum,	Linn., is	frequent
in dry places.				-

1274. P. ARENARIUM, Linn. Native. English. Amongst the coast sandhills about Redcar and Coatham, &c.

ALOPECURUS.

1278. A. pratensis, Linn.	Native.	British.	
1279. A. GENICULATUS, Linn.	Native.	British.	
1280. A. fulvus, Smith.	Incognit.		
It is desirable that the occurrence of this species (vide Flora, 142) should receive confirmation.			
1282. A. Agrestis, Linn.	Colonist.	English.	

1282. A. Agrestis, Linn.

MILIUM.

1287. M. EFFUSUM, Linn.

APERA.

Native.

Colonist. 1288. A. SPICA-VENTI, Beauv. Germanic. Agrostis, Flora, 118. Abundant in sandy soil about Cantley, near Doncaster-Rev. G. E. Smith (Phyt. ii. 282).

AGROSTIS.

1289. A. SETACEA, Curt.	Incognit.		
The locality mentioned in the Flora, on the authority of Brunton (B. G., 699), is probably erroneous.			
(B. G., 699), Is probabl	y erroneous.		
1290. A. CANINA, Linn.	Native.	British.	
1291. A. VULGARIS, With.	· Native.	British.	
A. pumila, <i>Lightf.</i> , a dy	varfed form of this sp	ecies, is frequent in	
dry elevated moory situ		. 1	

1292. A. ALBA, Linn. Native. British. A. stolonifera, Linn., is the maritime form of this species.

AMMOPHILA.

1293. A. ARUNDINACEA, Host.	Native.	British
Arundo, Flora, 122.	N	

English.

ARUNDO.

135

1294. A. Phragmites, Linn.	Native.	British.
1295. A. CALAMAGROSTIS, Linn.	Native.	English.
1296. A. EPIGEJOS, Linn.	Native.	English.
A. SYLVATICA, Schrad.	Incognit.	

Under Host's name of Calamagrostis pyramidalis this species is mentioned as having been "twice found near Hebden bridge," by himself, in a letter from the late S. Gibson. This is all the in-formation I can procure respecting it. It is allied to A. stricta, but differs by its broader panicle, shorter hairs at the base of the glume, and bent awns.

SESLERIA.

1299. S. CÆRULEA, Scop.

Native.

Highland.

ATRA.

1300. A. CÆSPITOSA, Linn.	Native.	British.
Ditches, hedgebanks,	and meadows; common.	
1302. A FLEXUOSA, Linn.	Native.	British.
1303. A. CARYOPHYLLEA, Linn.	Native.	British.
1304. A. PRÆCOX, Linn.	Native.	British.

STIPA.

S. PENNATA, Linn.

Incognit.

AVENA.

1307. A. FATUA, <i>Linn</i> . Cornfields and cultivated	Colonist. land ; frequent.	English.
1308. A. STRIGOSA, Schreb.	Alien.	
1309. A. pratensis, <i>Linn</i> . Meadows and pastures; fr		
formations. Ā. alpina is situations.	the same plant, grown in	more elevated
1310. A. PUBESCENS, Linn.	Native.	British.
Meadows and pastures; f	requent	
1311. A. FLAVESCENS, Linn.	Native.	English.

ARRHENATHERUM.

1312. A. AVENACEUM, Beauv. Native. British. Holcus, Flora, 119. The form with bulbous roots, A. bulbosum, of Lindley, is frequent in dry situations.

HOLCUS.

1313. H. LANATUS, Linn.	Native.	British.
1314. H. Mollis, Linn.	Native.	British.

TRIODIA.

1315. T. DECUMBENS, *Beauv.* Native. British. Moory places and heathy pastures; diffused universally.

KOELERIA.

1316. K. CRISTATA, Pers.	Native.	British.
Aira, Flora, 118.	In similar situations to the p	receding; frequent.

MELICA.

1317. M. UNIFLORA, Retz.	Native.	British.
1318. M. NUTANS, Linn.	Native.	Scottish.

MOLINIA.

1319. M. CERULEA, Manch. Native. British. Melica, Flora, 119. M. depauperata, Lindl., a diminished form, occurs occasionally.

CATABROSA.

1320. C. AQUATICA, Pre-	sl. Native.	British.
Aira, Flora, 1	18. Ponds and watery pla	ices; frequent.

GLYCERIA.

1321. G. AQUATICA, Smith.	Native.	English.
1322. G. FLUITANS, Brown.	Native.	British.
1322.* G. PLICATA, Fries.	Native.	British.

In similar situations to the preceding; probably not unfrequent. Kirby Knowle, along the margin of Bagby beck, and other places near Thirsk. G. hybrida, *Towns.*, G. pedicellata, *Towns.*, *Bab. Man.* 3, occurs in similar situations in the vicinity of Thirsk and elsewhere. It stands as a variety of this species in the third edition of Babington's Manual, and the fourth London Catalogue.

1323. G. MARITIMA, <i>M. et K.</i>	Native.	British.
1324. G. DISTANS, Wahl.	Native.	English.
Between Sheffield an salt water ditches in C	d Doncaster—O. A. Mod oatham marshes, and nea	ore. Banks of the ar Middlesborough.
1325. G. PROCUMBENS, Smith. With the two preced borough, but less plen	Native. ing species about Coatl ntiful than either of ther	English. ham and Middles- n.
1326. G. RIGIDA, Smith.	Native.	English.
1327. G. LOLIACEA, Lond. Cat. Triticum, Flora, 117. the old piers at Scarbo	Native. Seashores; not uncomn prough— <i>Rev. Archdeacon</i>	English. non— <i>Teesdale.</i> On <i>Peirson</i> (B. G. 673).
	POA.	
1328. P. ANNUA, Linn.	Native.	British.
1330. P. Alpina, Linn.	Native.	Highland.
Steep rocks on the we	est side of Ingleborough-	-S. Thompson.
1331. P. pratensis, Linn.	Native.	British.
1332. P. TRIVIALIS, Linn.	Native.	British.
frequent with P. comp in a stone quarry alon	Native. ; frequent. P. polynoda rressa; and P. subcompr gside the York and Lond <i>ibson</i> , 1846. Probably be	essa, <i>Parn.</i> , occurs on road at Adwick,
1334. P. NEMORALIS, Linn.	Native.	British.
1334c. P. PARNELLII, Bab.	Native.	Local.
Rocky bank of the Te -W. Borrer. Probab	es, from the Caldron Sno	out to Greta bridge ding.
1334*c. P. BALFOURII, Parn. P. glauca, Flora, 120.	Native.	Highland.
	BRIZA.	
1335. B. MEDIA, Linn.	Native.	British.
C	YNOSURUS.	
1337. C. CRISTATUS, Linn.	Native.	British.
1338. C. ECHINATUS, Linn.	Alien.	
valley of Calder (thre	occasionally in cultivated e specimens)—S. Gibson rass between Thorparch	(Phyt. i. 172). In

valley of Calder (three specimens)—S. Gibson (Phyt. i. 172). In a field of Italian rye-grass between Thorparch and Clifford, 1849! —S. Hailstone. In a cornfield near Ayton, 1852, where it has been known for the last fourteen years !—W. Mudd.

138

DACTYLIS.

1339. D. GLOMERATA, Linn.

Native.

British.

FESTUCA.

1340. F. UNIGLUMIS, Linn.	Incognit.	
It is desirable that the Flora should receive mod been clearly ascertained Suffolk.	lern confirmation, a	s this species has not
1341. F. BROMOIDES, Linn.	Native.	British.
1341b. F. PSEUDO-MYURUS, Soy Wi	ll. Native.	English.
F. myurus, Flora, 121. monument!—W. Mudd. ballast hills, 1852.		
1342. F. OVINA, Linn.	Native.	British.
F. ovina and vivipara, Floordinary moorland form		nuifolia, <i>Sibth.</i> , is the
1343. F. DURIUSCULA, Linn.	Native.	British.
1344. F. RUBRA, Linn.	Native.	British.
1345. F. SYLVATICA, Vill.	Native.	Scottish.
F. Calamaria, Flora, 121		
1346. F. ELATIOR, Aut.	Native.	British.
1347. F. pratensis, Huds.	Native.	British.
1347b. F. LOLIACEA, Huds.	Native.	British.

BROMUS.

1348. B. GIGANTEUS, Linn.	Native.	British.	
Woods, thickets, and diminished form, oc		F. triflora, Smith, a	
1349. B. ASPER, Linn.	Native.	British.	
1350. B. sterilis, Linn.	Native.	British.	
1353. B. ERECTUS, Huds.	Native.	English.	
Maltby, near Doncaster—O. A. Moore. St. Ann's hill, Castle Howard!—M. B. Slater. Bank near Kirklington!—M. Hebble- thwaite. Hedgebank between Thorpfield and Topeliffe!—A. Wat- son. Amongst the Middlesborough ballast hills!—W. Mudd.			
1354. B. secalinus, Linn.	Colonist.	British.	

Cornfields and cultivated land; frequent. There are two well marked forms of this species, grossus and vulgaris. An awnless variety also occurs occasionally. 1355. B. COMMUTATUS, Schrad. Native. British. B. arvensis, Flora, 122. Meadows and cultivated fields; frequent. According to Fries, this is B. pratensis of Ehrhart. A variety with separate fructiferous florets, which grows plentifully along Clifton ings, York, is perhaps B. Billotii, of Schultz. (Vide Bot.

1356. B. MOLLIS, Linn.

Gaz. ii. 3.)

British. A grass which agrees with authenticated specimens of B. racemosus of the London Catalogue, occurs occasionally in the vicinity of Thirsk. It is also reported from the neighbourhood of Settle !-- John Tatham, Heslington fields and Clifton ings, York—O. A. Moore. Welburn, near Castle Howard—H. Ibbotson; and a cornfield near Whiteliffe wood, near Richmond—Jas. Ward.

Alien. B. ARVENSIS, Linn. In the vale of Calder, between Brighouse and Sowerby bridge-S. Gibson (Phyt. i. 773).

B. PATULUS, M. et K. Alien. In Yorkshire, accidentally introduced-Bab. Man. Near Hebden bridge—S. Gibson.

BRACHYPODIUM.

1357. B. SYLVATICUM, Beauv.	Native.	British.
Festuca, Flora, 121.	Woods, thickets, and hedg	ebanks; common.
1358. B. PINNATUM, Beauv.	Native.	Germanic.
Festuca, Flora, 121.		- 5

TRITICUM.

1359. T. CANINUM, Huds.	Native.	British.
1360. T. REPENS, Linn.	Native.	British.
T. littorale, <i>Host</i> , in the vicinity of	the maritime form of this species, the seacoast	is common
in the troning of	ure seconder.	

1361. T. LAXUM, Fries. Native. British. Plentiful amongst the ballast hills at Middlesborough, and along the coast to Redcar and Marske. The variety macrostachyum, of Fries, occurs amongst the marshes at Coatham.

1362. T. JUNCEUM, Linn. Native. British. Auburn quay, near Bridlington-O. A. Moore. Plentiful amongst the sandhills between Marske and Saltburn.

LOLIUM.

1363. L. PERENNE, Linn. Native. British. Alien 1363.* L. ITALICUM. Braun.

Cultivated fields; frequent. Doubtfully distinct from the preceding.

Native.

140

1364. L. TEMULENTUM, Linn. Native. British. L. arvense, Flora, 116, is a variety of this species.
L. LINICOLA, Sonder. Alien. In a field at Catterick bridge, near Richmond—J. Ward.

ELYMUS.

1365. E. ARENARIUS, *Linn.* Native. British. On the railway embankment near Lazenby station, Cleveland.

HORDEUM.

Native.	English.
.17.	
Native.	English.
frequent.	
Native.	English.
Native.	English.
	17. Native. Frequent. Native.

NARDUS.

1369. N. STRICTA, Linn.

British.

LEPTURUS.

1371. L. INCURVATUS, Brown. Rottbollia, Flora, 116. Native.

Native.

English.

ORDER LXXXVII. FILICES.

CETERACH.

1372. C. OFFICINARUM, Willd. Native. English. Grammitis Ceterach, Flora 125. Notolepeum Ceterach, Newm.*

WOODSIA.

1373. W. ILVENSIS, *Brown*. Incognit. The single Teesdale locality for this species is on the Durham side of the river. That near Richmond is erroneous.

* I have given the synonyms of those species which appear under different names in the new edition of "Newman's British Ferns," just published.

141

POLYPODIUM.

1374. P. VULGARE, Linn.	Native.	British.
Ctenopteris, Newm. (B	5. F. 3.)	
1375. P. Phegopteris, Linn.	Native.	Scottish.
Et seq. Gymnocarpium	ı, Newm.	
1376. P. DRYOPTERIS, Linn.	Native.	Scottish.
1377. P. CALCAREUM, Smith.	Native.	Uncertain.
borough-W. Brunto	m. With the preced m, W. Wilson. Clap1 on Anston rocks—J. H	nam, near Settle $-R$.
A	ALLOSORUS.	
1378. A. CRISPUS, Bernh.	Native.	Highland.

CYSTOPTERIS.

1379. C. FRAGILIS, Bernh. British. Native. Cystea fragilis, dentata, angustata, and regia, Flora, 124. A very variable species, if a single species only. Nearly all the described forms may be found within the limits of the county.

ASPIDIUM.

- Native. 1382. A. LONCHITIS, Swartz. Highland. Et seq. Polystichum, Roth. The Falcon Clints station is on the Durham side of the Tees. Near Malham W. Wilson (Phyt. i. 451). On Moughton, near Austwick—R. Clapham.
- 1383. A. Aculeatum, Swartz. Native. British. Woods, hedgebanks, and rocky places; frequent. A. lobatum, Flora, 124, is a variety of this species.
- 1384. A. ANGULARE, Smith. Native. In similar situations; not uncommon.

Pteris, Flora, 126.

LASTREA.

1385.	\mathbf{L} .	THELYP	TERIS, Pres	<i>l</i> .	Native.		English.
		$Et \ seq.$	Aspidium,	Flora,	123, 124.	Hemestheum,	Newm.
1000	т	0	TD - 1		NT		TD 111 1

- 1386. L. Oreopteris, Presl. -Native. British. L. montana, Newm.
- 1387. L. CRISTATA, Presl. Incognit. Lophodium Callipteris, Newm. It is needful that the occurrence of this species should be confirmed.

English.

- 1388. L. FILIX-MAS, Presl. Native. British. Dryopteris, Schott. A very variable species. The three forms defined in the new edition of Newman's British Ferns, affinis, Borreri, and abbreviata, all occur occasionally.
- 1389. L. RIGIDA, Presl. Native. Local. Et seq. Lophodium, Newm. Seven Forks of Whernside, near Ingleton !- S. Thompson.
- 1390. L. SPINULOSA, Presl. Native. English. Loph. spinosum, Newm. Woods, thickets, and boggy heathy places; not unfrequent. Bingley, near Bradford!—Dr. Ainley. Woods about Castle Howard !—H. Ibbotson ! M. B. Slater. Forge valley, near Scarborough !—W. Bean. Kildale, Cleveland !—W. Mudd. Askham bogs, near York, Leckby Carr, near Thirsk, and other localities. When growing in boggy ground it approaches closely L. uliginosum, Neum!
- 1391. L. DILATATA, Presl. Native. British. L. multiflorum, Newm. Woods, thickets, and hedgebanks; common. Frequently more or less glandular (vide Phyt., iii. 722); but I have not seen anything in Yorkshire which coincides exactly with my authenticated examples of L. glandulosum, Neurm., (from Ankle-bury hill, Forest of Dean, Gloucester!—W. H. Purchas.) L. collinum, Newm., occasionally occurs.
- 1392. L. FENISECII, Watson. Native. Atlantic? In similar situations to the preceding; rare. Hills about Settle -J. Tatham, E. Newman (Cyb. Brit., iii. 272). Plentiful in Forge valley, near Scarborough !- E. Bean. Hackfall woods, near Ripon—T. Simpson. A specimen, labelled as having been collected at "Richmond—J. Ward," was communicated by the Edinburgh Botanical Society to the author of the Cybele Britan-nica (vide vol. iii. page 272); but Mr Ward informs me, that he believes some mistake has arisen.

ATHYRIUM.

- 1393. A. FILIX-FEMINA, Roth. Native. British. A. Filix-femina, Roth., A. rhæticum, Roth., and A. molle, Schreb., are all three tolerably frequent; the last in shady woods, the others in more exposed situations. Possibly they are distinct species.
 - A. FONTANUM, Presl. Incognit. "I have a specimen given to me as a Teesdale plant, but probably under some mistake" !-- S. Gibson (Phyt., i. 452). Near Skipton castle, 1835-S. Gibson. Wharncliffe wood, 1838-R. M. Redhead (Phyt, i. 1084). These three alleged localities are probably all erroneous.

1395. A. VIRIDE, Huds.

Native.

ASPLENIUM.

Highland.

1397. A. MARINUM, Linn. Native. Atlantic. 1398. A. LANCEOLATUM, Huds. Incognit. Reported by Bolton (B. G., 733), as occurring "on a wall in the village of Wharfe." 1399. A. ADIANTUM-NIGRUM, Linn. Native. British. 1400. A. RUTA-MURARIA, Linn. Native. British. Et seq. Amesium, Newm. 1401. A. SEPTENTRIONALE, Hull. Incognit. Ingleborough hills-Tofield. (B. G., 723). "A specimen, labelled Ingleborough, was in the herbarium of my brother, the late Thos. Backhouse, but I do not think any living botanist has seen it there "-J. Backhouse, in litt., 1854.

SCOLOPENDRIUM.

1402. S. VULGARE,	Symons.	Native.	British.
Phylittis	Scolopendrium,	Newm.	

BLECHNUM.

1403. B. BOREALE, Swartz. Native. B. spicant, With.

PTERIS.

Native.

1404. P. AQUILINA, Linn. Eupteris, Newm.

1396. A. TRICHOMANES, Linn.

ADIANTUM.

1405. A. CAPILLUS VENERIS, Linn. Incognit.

TRICHOMANES.

1406. T. RADICANS, Swartz.

Supposed to have been collected formerly by Dr. Richardson and others, near a small waterfall in a wood at Bellbank, near Bingley; but the station has now been destroyed many years. (Vide B.G., 724.) Newm., Hist. Brit. Ferns, 3 edit., p. 285.

HYMENOPHYLLUM.

1407. H. TUNBRIDGENSE, Smith. Native. Atlantic. Near Halifax, and at Green field, (near Todmorden)-W. Wilson

143

Native.

British.

British.

British.

Incognit.

(Phyt., i. 453). On rocks by a stream running down to the sea at Hayburn wyke, near Whitby, five miles north of Scarborough— *Mr. Peterkin, fide R. Spruce*, (Phyt., *loc cit.*) Reynard crags, near Birstwith, in Nidderdale!—*H. B. Brady! J. Backhouse, Jun.*

1408. H. Wilsoni, Hooker. Native. Scottish. H. unilaterale, Willd. Greenfield, (near Todmorden)-W. Wilson, (Phyt., i. 453). Rocks near Lower Harrogate-J. Backhouse, Jun.

ONOCLEA.

O. SENSIBILIS, Linn. Alien or Incognit. In a lane at Moreby, near York, now extinct?-H. Baines (vide Phyt., i. 492).

Native.

OSMUNDA.

1409. O. REGALIS, Linn.

BOTRYCHIUM.

1410. B. LUNARIA. Swartz.

OPHIOGLOSSUM.

1411. O. VULGATUM, Linn.

ORDER LXXXVIII. PTERIDOIDES.

LYCOPODIUM.

1412. L. CLAVATUM, Linn.	Native.	British.
1414. L. INUNDATUM, Linn.	Native.	$\operatorname{British}$?
1415. L. ALPINUM, Linn.	Native.	Highland.
1416. L. SELAGO, <i>Linn</i> .	Native.	$\mathbf{Scottish.}$
1417. L. SELAGINOIDES, Linn.	Native.	Highland.

ISOETES.

1418. I. LACUSTRIS, Linn. Incognit. In the large lake at Castle Howard, and in the Foss reservoir at Coxwold-H. Ibbotson (Phyt. i. 454). Is the plant which grows at these localities the present species, or is it Littorella lacustris? I should suspect, the latter.

British.

British.

British.

Native.

Native.

145

PILULARIA.

Native. 1419. P. GLOBULIFERA, Linn. British. Terrington Carr, and other watery places-Teesdale (B. G. 724). Scarborough mere-S. Gibson (Phyt i. 454). Brickpond near Leeming Inne-T. Simpson, Pond between Bootham and Gate Helmsley, York-T. A. Smith. Plentiful in Gormire, near Thirsk, especially at the north-east corner. EQUISETUM. 1420, E. TELMATEIA, Ehrh. Native. British. E. fluviatile, Flora, 127. About springs and rivulets, and in boggy ground, especially in the more undulated districts; frequent. Occasionally in drier situations. 1421. E. UMBROSUM, Willd. Native. Scottish. Bank of the Tees, about Lower Cronkley and Wince bridges, and below Holwick. 1422. E. ARVENSE, Linn. Native. British. 1423. E. SYLVATICUM, Linn. Native. British. Boggy places and damp meadows; frequent. Native. 1424. E. PALUSTRE, Linn. British. E. palustris, Flora, 128. Varieties nudum and polystachion, of authors, both occasionally occur. Native. 1425. E. LIMOSUM, Linn. British. Ponds and watery places; frequent. This includes both E. limosum and fluviatile, Fries; which are considered to be distinct species by that illustrious author, and all the other modern botanists of Scandinavia. They appear, however, to be connected, in some degree, by intermediate stages of gradation; but deserve further investigation than they have yet received, before this point can be confidently decided. (Vide Phyt. iv. 1056, 1117.) Native. 1426. E. HYEMALE, Linn. Scottish. 1428. E. VARIEGATUM, Schl. Native. Scottish.

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Part Second.

THE MOSSES OF THE COUNTY:

ARRANGED ACCORDING TO

HOOKER'S BRITISH FLORA;

BY

JOHN NOWELL.



GENERA AND SPECIES,

ARRANGED ACCORDING TO

Hooker's British Florn.

SECTION I. ACROCARPI.

SUBSECTION I. ASTOMI.

I. ANDRÆA.

- 1. A. ALPINA, Hedw. Fr. April. Rocks on Ingleborough-*Teesdale*, S. Hailstone. Brimham rocks, near Ripon-*Teesdale*. Cronkley fell, Teesdale-R. Spruce.
- 2. A. RUPESTRIS, *Hedw.* Fr. Spring. On Brimham rocks—*Teesdale.* Cronkley fell, Teesdale—*R. Spruce.*
- A. ROTHH, Mohr. Fr. Spring. Baysdale, Londsdale, and Ingleby bank, Cleveland-W. Mudd. Wharfdale-S. Gibson.

II. PHASCUM.

- P. SERRATUM, Schreb. Fr. Oct. Ephemerum, Hampe. In a wet pasture called Swinemoor, at Beverley; and in arable lands amongst stubble—*Teesdale*. Field near Mackershaw wood—W. Brunton. Railway bank, Stony-royd, Hareley wood, Todmorden.*
- 2. P. ALTERNIFOLIUM, B. and S. (not Brit. Fl.) Fr. Spring.
 - *Pleuridium, Brid.* Frequent near York. Kirkham hill and other places near Castle Howard, Teesdale—*R. Spruce.* The plant mentioned under this name in the Flora is the young of some other moss; probably of Dicranum varium—*R. Spruce.*

*N.B. It will be understood that the stations given without any other name rest upon the personal authority of the Editor of this part of the work. I have carefully revised the whole and added a few localities from the Botanist's Guide, Phytologist, and other sources. J.G.B.

3. P.	CRISPUM, Hedw.	Fr. March.
	Astomum, Hampe. Side of d Teesdale. Fields near Ayton-	litches at Figham near Beverley— -W. Mudd.
4. P.	SUBULATUM, Linn.	Fr. Spring.
	Pleuridium, B. and S.	
5. P.	AXILLARE, Dicks.	Fr. Spring.
	Pleuridium nitidum, B. and S.	
6. P.	PATENS, Hedw.	Fr. August.
	Physcomitrella, B. and S. Dit Rush, Castle Howard—R. Spr	ches by the Foss, near York, Temple <i>uce</i> .
7. P.	FLOERKEANUM, W. and M.	
	Acaulon, C. Mull. Frequent in Howard—R. Spruce. Var. bac side of Bulmer hagg—R. Spru	autumn in stubble fields near Castle lium occurs in a field on the south acc.
8. P.	MUTICUM, Schreb.	Fr. Oct.
	Acaulon, Müll. On a clay ban	k at Stony-royd, near Todmorden.
9. P.	CUSPIDATUM, Schreb.	Fr. Spring.
	gardens at Ripon-W. Brunt north riding; common-John	e Howard— <i>H. Ibbotson.</i> Fields and on. Roadsides and fallows in the <i>G. Baker.</i> Ackworth, near Pontefract et and roadsides near Bolton bridge.
10. P.	BRYOIDES, Dicks.	Fr. April.
	In old stone quarries at Welbu near Castle Howard— $R.$ Sprue	urn, and waste ground at Ganthorpe, ce.
11. P.	RECTUM, With.	Fr. Feb.
	On a bank in Mackershaw woo near Pontefract; frequent— D fields near Tadcaster.	d—W. Brunton. Banks and fallows r. J. B. Wood. Banks and stubble
12. P.	CURVICOLLUM, Hedw.	Fr. Feb.
	Plentiful on banks and wallto	ley and Market Weighton— <i>Teesdale</i> . os covered with mud, near Pontefract On the magnesian limestone, near

III. ARCHIDIUM.

1. A. PHASCOIDES, Brid.

Phaseum alternifolium, Brit. Fl. Stockton forest and Langwith moor, near York, where it fruits freely—R. Spruce. Hareley wood, near Todmorden; rare.

SUBSECTION II. GYMNOSTOMI.

IV. SPHAGNUM.

Fr. July. 1. S. OBTUSIFOLIUM, Ehrh. S. cymbifolium, Swartz.

2. S. COMPACTUM, Bridel. Fr. July. S. obtusifolium & minus, Brit. Fl. Yorks. Fl., 129. Stockton forest, near York-R. Spruce. Boggy moory places above Boltby, and amongst the Hambleton Hills-J. G. Baker. Terrington Carr, near Malton-M. B. Slater. Stansfield moor, near Todmorden.

3. S. CONTORTUM, Schultz.

Stockton forest, and Terrington Carr, near Malton-R. Spruce. Plentiful at the north-east corner of Gormire, and above Boltby, near Thirsk-J. G. Baker. Stansfield moor, near Todmorden. The var. obesum, Wils. MSS., occurs with the normal form of the

- species on Stockton forest, near York-R. Spruce.
- Fr. August. 4. S. MOLLUSCUM, Brid. Stockton forest and Barmby moor, near York-R. Spruce. Moors near Ayton, Cleveland-W. Mudd. Stansfield moor, near Todmorden.
- 5. S. SQUARROSUM, W. and M.
- 6. S. FIMBRIATUM, Wils. MSS. Fr. July. Boggy ground on the edge of Guisborough moor, near Highcliff; plentiful-J. G. Baker. Stansfield moor, near Todmorden; rare.
- 7. S. ACUTIFOLIUM, Ehrh. Fr. July.
- 8. S. CUSPIDATUM, Ehrh.

V. ŒDIPODIUM.

1. O. GRIFFITHIANUM, Schwaegr. Fr. Aug.

VI. GYMNOSTOMUM.

1. G. VIRIDISSIMUM, Smith.

Zygodon, Brid. Everywhere common on trees, &c.; but rarely fruiting. Wharfdale, trees in Teesdale, and rocks in Balderdale—R.Spruce. Baysdale, Cleveland-W. Mudd. Castle Howard woods-H. Ibbotson. On ash trees at Busby stoop, near Thirsk-J.G. Baker. On hawthorn between Thirsk and the railway Station-J. H. Davies. Trees in Studley park-W. Brunton.

Fr. April.

2. G. CURVIROSTRUM, Hedw. Fr. Sept.

> Rocks in Newtondale barren, and near the streams in Teesdale-R. Spruce.

151

Fr. June, July.

Fr. July, Aug.

Fr. Sept. 3. G. RUPESTRE, Schwaegr. Bolton; Wharfdale - S. Gibson. Rocks above Ingleby Greenhow, and Hell gill, Cleveland-W. Mudd.

4. G. OVATUM, Hedw. Fr. Spring. Pottia cavifolia, Ehrh Near Castle Howard-H. Ibbotson. Banks and walls, Holmes, Sowerby, and other places near Thirsk-J. G. Baker. Wall on the York road, near Malton-M. B. Slater. Ackworth, near Pontefract—I. Brown. Cliff rigg, Ayton, Cleveland— W. Mudd. The var. gracile grows plentifully on the walltops covered with mud at Buffit farm and other places near Pontefract -Dr. J. B. Wood. At Knottingley, near the railway station-J. G. Baker; and Darrington, near Ferrybridge.

5. G. TRUNCATULUM, Hoffm. Pottia truncata, B. and S.

6. G HEIMII, Hedw. Fr. Spring. Pottia, B. and S. Walls and dry banks-Teesdale. On the bridge crossing the Wharfe at Thorp-Arch, and on the Multangular tower, Plentiful amongst the Redcar sandhills-W. York—R. Spruce. Mudd.

- 7. G. CONICUM, Schwaegr. Fr. Spring, Summer. Pottia minutula, B. and S. Frequent near York and Castle Howard -R. Spruce. Fields near Welburn, and Rose nursery, Malton-M. B. Slater. Bank between Thirsk and Kilvington, and other stations in that vicinity-J. G. Baker. Common in stubble fields near Tadcaster, and on banks and walls near Pontefract.
- 8. G. FASCICULARE, Hedw (not Brit. Fl.) Fr. Spring Physcomitrium, B. and S. Stockton forest, near York-R. Spruce. Damp banks near Ayton-W. Mudd.

9. G. ERICETORUM, (De Not.) Fr. Spring. G. fasciculare, Eng. Fl. Yorks. Fl., 130. Physcomitrium, De Not. Banks of Boltby beck, above the village-J. G. Baker. Moist banks in a field at Hartley-royd, near Todmorden.

Fr. Spring. 10. G. PYRIFORME, Hedw. Physcomitrium, B. and S. Damp banks; frequent.

11. G. TENUE, Schrad. Fr. June. Near Wetherby—Dickson. Thorp-Arch, and fruiting on the Sandhill bridge, Castle Howard park—R. Spruce. On the ruins of the Abbot's house, Fountain's Abbey—A. Hutchinson. On stones along the railway embankment, south of Thorpfield bridge, near Thirsk -J. H. Davies, J. G. Baker.

Fr. July 12 G. DONIANUM, Smith. Anodus, B. and S. Mowthorpe dale, and rocks at Crambeck, Castle Howard-R. Spruce. On wet, shady rocks, overhanging the watercourse at Highgreen wood, near Heptonstall; rare.

Fr. Summer. 15. G. MICROSTOMUM, Hedw. Hymenostomum, R. Brown. Banks near Hudson Mill, Heptonstall, and Hareley wood, near Todmorden.

Fr. Winter and Spring.

VII. ANICTANGIUM.

Fr. April.

Hedwigia, Hedw. White Force, Cronkley fell, and other places in Teesdale—*R. Spruce.* Rocks at Lord Grantley's lakes, on Sawley moor, near Ripon—*W Brunton.* Holwick scarrs, Teesdale—*M. B. Slater.* Bolton woods, Wharfdale—*S. Gibson.* Rocks in Lounsdale, Cleveland—*W. Mudd.* Walls near the bridge at Barden tower.

VIII. SCHISTOSTEGA.

1. S. PENNATA, H. and T.

1. A. CILIATUM, Hedw.

Fr. April.

S. osmundacea, W. and M. Sides of an old coal drift in Greensclough, near Todmorden, not far from the boundary of the county. Under shady rocks at Guyscliffe, near Pateley bridge, Nidderdale.

SUBSECTION III. PERISTOMI.

DIV. I. APLOPERISTOMI.

IX. DIPHYSCIUM.

1. D. FOLIOSUM, Mohr.

Fr. June.

Near the High Force, Teesdale—Sir W. Trevelyan. Rocks in Lounsdale, Cleveland—W. Mudd. Heathy banks below Slope's mill, and other places near Todmorden; rare.

X. TETRAPHIS.

1. T. PELLUCIDA, *Hedw.* Fr. Spring. Trees and rocks; frequent; especially in more or less elevated situations.

2. T. BROWNIANA, H. and T. Fr. Summer.

Tetradontium, Schwg. Stones in the rivulet from Lord Grantley's lakes, on Sawley moor—W. Brunton. Plumpton rocks, Hackfall, and Dallow gill by Copgrove—Rev. J. Dalton. Teesdale, Newtondale, Merricks gill, Hackness—R. Spruce. Shady rocks above Boltby, near Thirsk—J. G. Baker, J. J. Packer. Rocks at Battersby, Cleveland—W. Mudd. High Cliffe near Guisborough—J. W. Wutson, J. G. Baker. Shady sandstone rocks in Stopesclough, and other rocky dells in the neighbourhood of Todmorden.

154

XI. SPLACHNUM.

- 1. S. SPHÆRICUM, L fil. Fr. Summer. Fr. Spring. 2. S. MNIOIDES, L. fil. Tetraplodon, B. and S. Holwick Scarr, Teesdale-R. Spruce. Cautley crags, near Sedbergh—Rev. G. Pinder.
- Fr. Autumn. 3. S. ANGUSTATUM, L. fil. Tetraplodon, B. and S. Bog near Cottingham; rare-Teesdale, B. G.
- 4. S. AMPULLACEUM, Linn. Fr. Summer. Terrington Carr, near Malton-Teesdale, R. Spruce, &c. Dallow gill, Nidderdale-Rev. J. Dalton. Wet ground near Ripon-S. Hailstone.
- 5 S. VASCULOSUM, Hedw. Moist mountainous heaths—Hudson, B. G. Probably erroneous, or at least requiring confirmation.

XII. ENCALYPTA.

- 1. E. STREPTOCARPA, Hedw. Fr. April. Bolton woods, Wharfdale-S. Gibson. Roofs at Boltby, rocks above Hawnby (in fruit), Sutton bank, and other places amongst the Hambleton hills—J. G. Baker. Stogdale and Westerdale, Cleveland—W. Mudd. Walls of Castle Howard park—H. Ibbotson, M. B. Slater. Frequent on old walls in Craven.
- 2. E. VULGARIS, Hedw. Fr. Spring. Walls and banks; frequent.
- Fr. Summer. 3. E. CILIATA, Hedw. Whernside and Howgill fells-Rev. G. Pinder. Rocks near the waterfall at Mossdale head, Wensleydale-W. Brunton. At the White force, Cronkley fell, and other places in Teesdale—R. Spruce, J. G. Baker. Limestone rocks on Malham moor, and near the summit of Ingleborough.
- Fr. June. 4. E. RHAPTOCARPA, Hedw.

XIII. WEISSIA.

- 1. W. NUDA, H. and T. Fr. March. Discelium, Brid. Bolton, Wharfdale-S. Gibson.
- 2. W. STARKEANA, Hedw. Fr. Feb. Encalypta, Nees. and Horns. Clifton Scope, near York-R. Spruce.
- 3. W. LANCEOLATA, H. and T. Fr. Spring. Mud walls and hedgebanks-Teesdale. Encalypta, Köhl. Near Bolton abbey, Wharfdale—S. Gibson. Roofs at Ayton, Cleveland —W. Mudd. Walls at Dalby, and near Castle Howard—H. Ibbotson. Went Vale, and Ackworth, near Pontefract-J. Watson. Banks and mud-covered walltops near Pontefract. Banks near Broughton Hall, Craven.

- 4. W. FUGAX, Hedw. Fr. Summer. W. striata & minor, Brit. Fl. Rhabdoweisia, B. and S. Between Bolton abbey and Barden tower, Wharfdale—R. Spruce.
- W. DENTICULATA, Schwaegr. Fr. Summer.
 W. striata & major, Brit. Fl. Rhabdoweisia, B. and S. Moist shady rocks in Greensclough, near Todmorden, near the border of the
- county.
 6. W. TRICHODES, H. and T. Fr. Autumn. Brachyodus, N. and H. Abundant on sandstone near Castle Howard
 - -R. Spruce, M. B. Slater. Rocks at Guyseliffe, near Pateley bridge.
- 7. W. CIRRATA, Hedw. Fr. Spring.

In the North Riding, generally on very old paling—*Teesdale*. Kildale, Sleddale, and Baysdale, Cleveland—*W. Mudd.* Park quarry, Castle Howard—*R. Spruce.* Walls at Romaldkirk, Teesdale, and rocks above Boltby, near Thirsk—*J. G. Baker.* Ackworth, near Pontefract—*I. Brown.* Walls near Darley, in Nidderdale—*G. R. Baker.* Common on walls near Pateley bridge. Walls and rocks near Todmorden; rare.

- 8. W. TENUIROSTRIS, H. and T. Fr. April. Didymodon cylindricus, B. and S. On stones in Lythe beck, Eskdale R. Spruce.
- 9. W. CURVIROSTRA, *H. and T.* Fr. Autumn. Rocks, walls, and trees; frequent.
- 10. W. CONTROVERSA, *Hedw.* Fr. Winter.
- 11. W. CALCAREA, Hedw. Fr. May. Seligeria, B. and S. Chalk stones near Bishop's Burton; rare— Teesdale.
- 12. W. RECURVATA, H. and T. Fr. Summer. Seligeria, B. and S. Rocks near Copgrove—Rev. J. Dalton. Rocks in Eskdale—R. Spruce. Near Castle Howard—H. Ibbotson. Rocks below Whitstonecliff, in Flazendale, and other places amongst the oolitic moorlands; plentiful—J. G. Baker. Ingleby bank, and other localities in Cleveland—W. Mudd. Shady rocks and walls near Todmorden.
- W. PUSILLA, Hedw. Fr. June.
 Seligeria. B. and S. Limestone rocks, Mowthorpe dale, and Crambeck, near Castle Howard; a form approaching W. calcarea—R. Spruce. Howgill and Dent fells—Rev. G. Pinder. Moist shady rocks, Gordale, and other places near Malham.
- 14. W. VERTICILLATA, Schwaegr. Fr. June. Eucladium, B. and S. First waterfall at Hackfall, and at Mossdale head, Wensleydale—W. Brunton. Goadland beck, Eskdale, Crambeck, near Castle Howard, and Forge valley, near Hackness—R. Spruee. Near Knaresborough—T. B. Powell. Near Middleton, in Teesdale—W. Robertson. Damp moory places above Boltby, near Thirsk; plentiful—J. G. Baker. Hell gill, Guisborough moor—

W. Mudd. Gillaleys, Castle Howard—M. B. Slater. Went Vale, near Pontefract—J. W. Watson. Helks wood, near Ingleton.

 W. ACUTA, Hedw. Fr. May, June. Blindia, B. and S. Plentiful on basaltic rocks by the Tees, at Wince bridge, and other places in Teesdale—R. Spruce, M. B. Slater. Bolton, Wharfdale—S. Gibson. Rocks at Ingleby, Cleveland—W. Mudd.

XIV. GRIMMIA.

- 1. G. APOCARPA, *Hedw.* Fr. Spring. Schistidium, B. and S. Walls and rocks; frequent. The fluitant form (G. rivularis, Brid.) is not uncommon in mountainous rivulets. Var. stricta, Turn., occurs on rocks near the Strid, Wharfdale.
- 2. G. SAXICOLA, Schwaegr. Fr. May. Campylostelium, B. and S. Merrick's gill, Hackness—R. Spruce.
- G. MARITIMA, Turn. Fr. March. Schistidium, B. and S. On the coast cliffs at Huntcliffe point, near Saltburn-W. Mudd.

4. G. PULVINATA, Smith. Fr. Spring.

- 5. G. TRICHOPHYLLA, Grev. Fr. March.
 Walls between Barnard Castle and Middleton, Teesdale; abundant —R. Spruce. Walls on the top of the Hambleton hills, above Boltby —J. G. Baker. Old walls near Barden tower, and rocks in Bolton woods. Frequent on walls near Pateley bridge, in Nidderdale.
- G. SPIRALIS, H. and T. Fr. Autumn. High force, Teesdale, on basaltic rocks—R. Spruce. Rocks at the White force, Cronkley fell—J. G. Baker.
- G. TORTA, Horns. and Nees. Cronkley scarrs, Teesdale—R. Spruce.
- 8. G. OVATA, Web. and Mohr. Fr. June. Rocks above the Rye, near Laskill bridge, Bilsdale—J. G. Baker.
- 9. G. DONIANA, Smith. Fr. Summer. Old walls near the White force, and other parts of Cronkley fell— A. O. Black, J. N.

XV. DIDYMODON.

- 1. D. FURPUREUS, H. and T. Fr. Spring and Summer. Ceratodon, Brid.
- D. FLEXIFOLIUS, H. and T. Fr. Winter. Ackworth, near Pontefract—I. Brown. Ayton moor, Cleveland— W. Mudd. Eaves wood, near Heptonstall.

("Trich. aquaticum, Brid.? fide Wilson"-Spruce, Phyt. ii. 155). Near Malham, 1837-W. Wilson. Settle-W. Borrer. In an old quarry at Welburn-R. Spruce.

- D. BRUNTONI, Arn. Fr. May. Cynodontium, B. and S. High force and Cronkley scarrs, Teesdale. Newtondale—R. Spruce. Rocks near the Strid, Bolton Abbey.
- D. RIGIDULUS, Hedw. Fr. Autumn and Winter. Trichostomum, Smith. Walls and rocks; common. Weissia crispula, Flora, 132, is a form of this species—R. Spruce.
- 6. D. TRIFARIUS, Swartz. Fr Autumn and Winter. T. tophaceum, Brid. Crambeck, Castle Howard—R. Spruce. Wet rocks at High-green wood, Heptonstall.
- 7. D. CRISPULUS, Eng. Fl. Fr. Summer.

Trichostomum, Bruch. Cliffs north of Scalby mills, near Scarborough -R. Spruce.

- 8. D. BRACHYDONTIUS, Wils. Fr. Summer. T. mutabile, Bruch. Scalby mills, near Scarborough—R. Spruce.
- 9. D. CAPILLACEUS, Schrad. Fr. Spring, Summer. Distichium, B. and S. Near Wince bridge, Teesdale—R. Spruce. Saltersgate beck—M. B. Slater. Aysgarth Force, Wensleydale—A. Watson. Ayton moor, Cleveland—W. Mudd. Rocks at the Strid, Wharfdale.

10. D. FLEXICAULIS, Schwaegr. Trichostomum, B. and S. D. longirostris, Eng. Fl. (not W. and M.) Frequent on rocks, walls, and banks, in the limestone districts; but always barren.

- 11. D. HETEROMALLUS, H. and T. Fr. Autumn. T. homomallum, B. and S.
- 12. D. PUSILLUS, Hook. Fr. Spring. *T. tortile, Schrad.* In the park quarry at Castle Howard—*R. Spruce, H. Ibbotson.*
- 13. D. CYLINDRICUS, *Hook.* Fr. Nov. Castle Howard park quarry—*R. Spruce.*

XVI. TRICHOSTOMUM.

1. T. LANUGINOSUM, Hedw. Racomitrium, Brid.	Fr. Spring.	
2. T. CANESCENS, Hedw. Racomitrium, Brid.	Fr. Spring. Strensall moor, near	On

* Is not this "Grimmia recurvifolia, Wils., MSS."? I have a specimen so named, collected by Spruce at the station quoted above. J.G.B.

^{3.} D. AQUATICUS,*

the moor near the Hambleton hotel—J. G. Baker. Heaths, banks, and sandy lanes, near Todmorden.

- 3. T. HETEROSTICHUM, Hedw. Fr. Spring. Racomitrium, Brid.
- 4. T. PROTENSUM, (Al. Br.) Fr. Feb. Racomitrium, Al. Braun. Rocks above the White force, Cronkley fell, Teesdale.
- T. ACICULARE, Beauv. Fr. Spring. Racomitrium, Brid. At Harrogate—Teesdale. Rivulet on Sawley moor—W. Brunton. Stones by the Esk, and Goadland beck; plentiful—R. Spruce. Rocks by the Rye, near Laskill bridge. and in Boltby beck—J. G. Baker. Baysdale, Cleveland—W. Mudd. Ravine near Roseberry Topping—J. Watson.
- 6. T. FASCICULARE, Schrad. Fr. Spring. Racomitrium, Brid. Rocks and walls; frequent.
- T. POLYPHYLLUM, Schwaegr. Fr. Summer. Brimham rocks, near Ripley—*Teesdale*. Lord Grantley's lakes, near Ripon—*W. Brunton*. Walls near Darley, in Nidderdale—*G. R. Baker*. Stones at Thornton-le-street; sparingly—*John H. Davies*. Rocks at Newton, Cleveland—*W. Mudd*. Old walls near Todmorden; rare. T. ellipticum, Flora, 133, is erroneous.

XVII. FISSIDENS.*

1. F. BRYOIDES, Hedw.

Fr. Winter, Spring.

Dicranum bryoides a, British Flora. D. bryoides, Yorks. Fl., 138, in part. Hedgebanks and fallows; common.

- F. INCURVUS, Schwaegr. Fr. Winter, Spring.
 D. bryoides y, Brit. Fl. Grassy places near York R. Spruce. Banks about Boltby and other places near Thirsk-J. G. Baker. Ayton, Cleveland - W. Mudd. The variety (?) pusillus, Wils. M.S.S., is frequent on sandstone near Castle Howard - R. Spruce, M. B. Slater; and occurs also on wet rocks at Gormire, and below Rolston Scarr, near Thirsk-J. G. Baker; and sparingly on moist rocks near Todmorden.
- F. CRASSIPES, Wils. MSS. Fr. Spring. On stones in Crambeck, Castle Howard—R. Spruce. On stones in Codbeck, at Kilvington, and in the Holmes, Thirsk—J. G. Baker.
- F. EXILIS, † Hedw. Fr. Spring. F. Bloxami, Wils. Airyholme wood, near Ayton—W. Mudd.
- 5. F. TAMARINDIFOLIUS, *Don. and Smith.* Fr. March. Grassy banks and fields, Stansfield, near Todmorden; very rare.

* In one or two cases, as in the present instance, we have slightly departed from Hooker's classification, in conformity with recent usage. J.G.B.

+ In the Bryologia Europæa, F. Bloxami and F. exilis, stand as two distinct species. J.G.B.

- 6. F. OSMUNDOIDES, Hedw. Fr. Spring. D. bryoides β , Brit. Fl. Rocks at the White force, Teesdale—R. Spruce. Guisborough moor, Cleveland—W. Mudd. Wet rocks at Stopesclough, and on boggy ground at Longfield moor, near Todmorden.
- 7. F. ADIANTOIDES, Hedw. Fr. Winter, Spring. Et seq. Dicranum, Flora, 133. Brit. Fl. ii. 36.
- 8. F. TAXIFOLIUS, Hedw. Fr. Winter and Spring.

XVIII. CAMPYLOPUS.

- 1. C. FLEXUOSUS, Brid. Fr. Spring. Dicranum, Brit. Fl. Yorks. Fl. 133. Rocks in shady woods; not unfrequent. The variety (?) C. pilifer, Brid., is frequent upon boggy moors, especially in mountainous situations.
- 2. C. TARFACEUS, B. and S. Fr. Spring. Moors, and heathy banks in woods; frequent.
- 3. C. FRAGILIS, B. andS. Fr. Spring. Dry banks, Slopesclough, Stansfield, near Todmorden.

XIX. DICRANUM.

1.	D. GLAUCUM, Hedw.	Fr. Spring.
	Onocophorus, B. and S.	
2.	D. CERVICULATUM, Hedw.	Fr. Summer.
3.	D. STRUMIFERUM, Ehrh.*	Fr. Autumn.
4.	D. FALCATUM, Hedw.*	Fr. June.
	Saltersgate beck—M. B. Slate	r.
5.	D. STABKIL, "Web, and Mohr?"	Spruce, Phut.

Spruce, Phyt. ii. 150. Fr. Julv. pnr . Holwick scarr, Teesdale-R. Spruce.

6. D. FLAVESCENS, Smith. Fr. Autumn. Abundant by the Esk and Lythe beck—R. Spruce. Plentiful on wet rocks in Flazendale, Scawton Nowle, and other dales amongst the Hambleton hills—J. G. Baker. Aysgarth force, Wensleydale—A. Watson. Goadland beck—M. B. Slater. On stones in a small stream in Bolton woods; plentiful.

7. D. PELLUCIDUM, Swartz. Fr. Autumn. Large stones by the side of a rivulet north of Harrogate-Teesdale. Stones near a rivulet at Ripon-W. Brunton. Abundant by the Esk

* These two species both grow in elevated alpine situations, so that it is possible that some misapprehension has arisen with reference to their occurrence in the Yorkshire stations reported ; but I have not seen specimens. J.G.B.

and Lythe beck—R. Spruce. Bolton, Wharfdale—S. Gibson. Saltersgate beck—M. B. Slater. Kilvington, near Thirsk, and plentiful on damp rocks in Flazendale, and other places amongst the Hambleton hills—J. G. Baker. Hell gill, Guisborough—W. Mudd. Wet rocks, near Todmorden; not rare.

8. D. SQUARROSUM, Schrad. Fr. Autumn.

North Bierley, near Bradford—Dr. Richardson. Boggy ground near Holwick, Teesdale—J. G. Baker. Near Bolton, Wharfdale—S. Gibson. Saltersgate beck, fruiting plentifully—M. B. Slater. Bogs in Baysdale, Cleveland—W. Mudd. Frequent on wet banks and scars near Todmorden.

9. D. SPURIUM, Hedw.

Houghton moor, near Newbold. Barmby moor, between York and Beverley—*Teesdale*. Still grows at Bramby moor, and fruits sparingly. Stockton forest, and Langwith moor, near York—*R. Spruce*.

 D. FLAGELLARE, *Hedw.* Fr. Autumn. Rocks, Kildale, Cleveland—W. Mudd.

11. D. Scottianum, Turn. Fr. Autumn.

On rocks at Ingleby Greenhow, and Higheliff, near Guisborough-W. Mudd.

12. D. Schrederi, Hedw.

Ditch on the west side of the Temple rush, Castle Howard—R. Spruce.

13. D. UNDULATUM, Ehrh. Fr. Autumn.

D. palustre, Brid. Stockton forest, Welburn moor, Terrington carr, and other places—R. Spruce. Sleddale, Cleveland—W. Mudd. Moors above Boltby, and plentiful on the Hambleton hills—J. G. Baker. Ackworth, near Pontefract—I. Brown. Boggy ground near Wainstones, Cleveland—J. W. Watson. Wet pastures near Todmorden. The plant mentioned in the Flora under this name is D. scoparium, (Dillenii).

 D. SCOPARIUM, Hedw. Fr. Summer and Autumn. D. scoparium & vulyaris, Brit. Fl. D. Dillenii, Tayl. Walls and rocks; common.

D. MAJUS, Schwaegr. Fr. Summer and Autumn.
 D. scoparium β majus, Brit. Fl. D. scoparium, Tayl. In similar situations to the preceding; equally frequent.

16. D. FUSCESCENS, *Turner*. Fr. Autumn.

D. scoparium γ fuscescens, Brit. Fl. Holwick and Cronkley scarrs, and on basaltic rocks below the High force, Teesdale—R. Spruce. Bolton, Wharfdale—S. Gibson. Rocks above Boltby, near Thirsk— J. G. Baker. High green wood, near Heptonstall, and woods near Bingley and Guyscliffe, Nidderdale.

17. D. VARIUM, Hediv.

Fr. Autumn and Winter.

18. D. RUFESCENS, Turn.

Fr. Autumn and Winter.

D. varium & rufescens, Brit. Fl. On the margin of Kildale moor, Cleveland-W. Mudd. On the Yorkshire side of the Tees, between the High force and Wince bridge-A. O. Black. Clayey banks and scars near Todmorden.

19. D. HETEROMALLUM, "Hedw.

20. D. SUBULATUM, Hedw.

Fr. Winter. Fr. Winter.

Clayey banks, Hareley Wood, and in an old quarry at Shawbridge, near Todmorden.

XX. TORTULA.

1. T. ENERVIS, Hook and Grev. Fr. Winter. Barbula rigida, Schultz. Abundant on mud-capped walls at Crambeck, and near Malton, Scalby, near Scarborough, and Jackdaw crag, Tadcaster-R. Spruce. Abundant, along with the next species, on walltops covered with mud, near Pontefract-Dr. J. B. Wood.

2. T. AMBIGUA, B. and S. Fr. Winter.

> Et seq.' Barbula, B. and S., Bryol. Europ. Abundant on walltops covered with mud, in the vicinity of Pontefract-Dr. J. B. Wood. Plentiful on walls at Knottingley—J. G. Baker. On a mud-capped wall by the roadside leading out of Malton towards York, and in similar situations near Welburn—R. Spruce. On walltops in the village of Barkston Ash, near Church Fenton station.

3. T. RIGIDA, Turn.

Fr. Winter.

B. aloides, B. and S. Rocks on Ingleborough-Hudson. Hedgebanks near Ripon, and rocks on [the banks of] the Nidd, near Knaresborough-W. Brunton. Wall on the York road, half a mile from Malton-M. B. Slater. On a wall at Stackhouses, near Settle-A. O. Black. Moist rocks and walls, in a deep cutting of the road at Wenthill, near Pontefract—Dr. J. B. Wood, and J. N.

- 4. T. CONVOLUTA, Swartz. Fr. Spring. Gillaleys, Castle Howard-M. B. Slater. Baysdale, Cleveland-W. Mudd. Dry banks and fields near Todmorden.
- 5. T. REVOLUTA, Brid. Fr. Spring. Kirkham hills, near Castle Howard—R. Spruce.
- 6. T. MURALIS, Hedw. Fr. Spring, Summer.
- Fr. Spring, Summer. 7. T. RURALIS. Hedw.
- 8. T. LÆVIPILA, Schwaegr.

Fr. Summer. T. ruralis β lavipila, Brit. Fl. On trees; common—R. Spruce. On trees near Thirsk, and other places; J. G. Baker. Welburn, near Malton-M. B. Slater. On trees near Bolton, Wharfdale.

9. T. SUBULATA, Hedw. Fr. Winter, Spring.

10. T. MARGINATA, B. and S. Fr. Spring.

> On walls and rocks of soft sandstone, near Castle Howard; most abundant in the park quarry-R. Spruce. With Bryum atropurpureum, at the sandstone quarry on the south side of the Swale, at Leckby-J. G. Baker.

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11. T. PAPILLOSA, Wils. MSS.

Castle Howard park, and on old elms at Huntington, near York-R. Spruce.

12. T. LATIFOLIA, B. and S.

Frequent in situations liable to inundation, as on the banks of the Ouse, Derwent, Wharfe, Foss, &c.—R. Spruce. Banks of Codbeck near Kilvington and Thirsk, of the Swale below Topcliffe, and of the Wiske at Kirby Wiske—John G. Baker. Banks of the Wharfe, near Tadeaster.

- 13. T. UNGUICULATA, H. and T. Fr. Winter.
- 14. T. CUNEIFOLIA, *Turn*. Earthen walls and dry banks—*Teesdale*. It is desirable that the occurrence of this species should receive modern confirmation.
- 15. T. TORTUOSA, Hedw. Fr. Summer. Plentiful on rocks amongst the oolitic moorlands, and other limestone districts.
- 16. T. FALLAX, Hedw.

Fr. Summer, Autumn.

- T. VINEALIS, Brid. Fr. May. Zygotrichia cylindrica, Tayl. On a wall by the roadside between Barnard Castle and Lartington—R. Spruce. Rocks by the Wharfe, at Bolton Abbey; sparingly.
- 18. T. GRACILIS, Hook and Grev. Dillenius reports "T. brevifolia," from "bogs in Yorkshire." It is desirable that this should receive modern confirmation.

XXI. CINCLIDOTUS.

1. C. FONTINALOIDES, Beauv.

Fr. Spring.

Mountain rivulets in the north and west ridings—*Teesdale*. Near Ripon—*W. Brunton*. In the Wharfe, between Bolton Abbey and Barden Tower—*R. Spruce and J. N.* Plentiful in the Swale, below Aisenby, and in the Ure, at Aysgarth force—*John G. Baker.* Hell gill, Guisborough moor—*W. Mudd.* In the watercourse below Malham Cove. Very fine on the Tees above High force—*A. O. Black.*

XXII. POLYTRICHUM.

1.	P. UNDULATUM, Hedw.	Fr. Winter, Spring.	
	Atrichum, P. Beauv.		
2.	P. HERCYNICUM, Hedw.	Fr. May.	
	Oligotrichum, DC.		
3.	P. PILIFERUM, Schreb.	Fr. Spring.	
4	P. JUNIPERINUM, Willd.	Fr. Spring.	
	Heathy and moory places;	frequent.	
5.	P. COMMUNE, Linn.	Fr. Spring, Summer.	
Var. P. fastigiatum, Wils. MSS., occurs on Stansfield moor, Todm			

- Fr. Spring, Summer. 6. P. FORMOSUM, Hedw. Woods near Castle Howard; more frequent than P. commune-R. Spruce. In a fir plantation on the south side of Terrington carr-Moory ground above Boltby, near Thirsk-J. G. M. B. Slater. Baker. Cliff-rig, Ayton, Cleveland-W. Mudd. Sandy banks and old shady walls in woods, High green wood, Heptonstall; plentiful.
- Fr. Summer. 7. P. GRACILE, Menz. Ayton moor, Cleveland-W. Mudd. Terrington carr-H. Ibbotson. Stansfield moor, near Todmorden; rare.
- 8. P. ALPINUM, Linn. Fr. Summer. Et seq. Pogonatum, Brid. On the east side of Ray wood, Castle Howard, near the octagonal temple—*Teesdale*. Mossdale head, Wensleydale—*W. Brunton*. Bolton, Wharfdale—*S. Gibson*. Cronkley fell, Teesdale-H. Ibbotson. Common in elevated moory places in Teesdale—A. O. Black. Abundant on the moors above Malham. On the roadside at Stipenden bank, Stansfield.
- 9. P. URNIGERUM, Linn. Fr. Autumn, Winter. Sandy places on moors, and banks by roadsides; frequent.
- 10. P. ALOIDES, Hedw.

11. P. NANUM, Hedw.

DIVISION II. DIPLOPERISTOMI.

XXIII. FUNARIA.

1.	F.	HYGROMETRICA,	Hedw.

Fr. Spring, Summer.

- 2. F. MUHLENBERGII, Schwaegr. Fr. May.
 - Limestone rock at Copgrove-Rev. J. Dalton. Banks and ledges of rock near Malham.

XXIV. ZYGODON.

1. Z. MOUGEOTII, B. and S.

Amphidium, N. et H. Gym. nimbosum, Tayl. MSS. On moist rocks in elevated situations throughout the county. Teesdale and Eskdale -R. Spruce. Pennyghent-H. Ibbotson. Rocks at the White force, Cronkley fell-J. G. Baker. Rocks at the Strid, Bolton abbey; and High green wood, Heptonstall.

XXV. ORTHOTRICHUM.*

1. O. CUPULATUM, Hoffm. Fr. Spring. Rocks and trees; frequent. Var. O. nudum, Eng. Bot., on the banks of the Wharfe at Bolton abbey.

*I have arranged the species of this genus and the next in the order of sequence in which they are given in the Bryologia Europea. J.G.B.

- Fr. Autumn, Winter.
 - Fr. Autumn, Winter.

2. O. ANOMALUM, Hedw.

In similar situations to the preceding; not unfrequent. Fr. Summer. 3. O. PUMILUM, Schwaegr. O. affine & pumilum, Brit. Fl. Near the root of a sycamore tree at Hell wath, by Ripon-W. Brunton. On an ash tree on Clifton ings, York—R. Spruce. 4. O. TENELLUM, Bruch. Fr. Summer. Ash trees on the York road near the Castle Howard gate. Very fine on trees by the Cock near Tadcaster-R. Spruce. On trees near Guisborough-W. Mudd. On trees at Sutton-under-Whitstonecliff, near Thirsk-J. G. Baker. 5. O. SPRUCH, Mont. Fr. Summer. Frequent on trees and shrubs on the banks of the Ouse, Wharfe, and Cock-R. Spruce. Discovered in 1842. Banks of Codbeck at Thirsk and Kilvington, of the Swale below Topcliffe, and of the Wiske at Kirby Wiske; generally in company with Tortula latifolia -J. G. Baker. 6. O. AFFINE, Schrad. Fr. Summer. Trunks of trees; frequent. Fr. Summer. 7. O. FASTIGIATUM, Bruch. By a footpath between Greta bridge and Rokeby, 1810-W. Borrer. 8. O. RUPINCOLA, Funck. Fr. Summer. O. rupestre, Schleich. Fallen rocks below the High force, Teesdale-R. Spruce. 9. O. SPECIOSUM, Nees. On trees and shrubs near Bolton bridge-S. Gibson. 10. O. STRAMINEUM, Hornsch. Teesdale. Frequent in the neighbourhood of Castle Howard, growing chiefly on beech trees—R. Spruce. On an ash tree on the south bank of the Swale, near Leckby-J. G. Baker. On an ash tree near Blakey bridge, Thirsk-J. H. Davies. 11. O. PALLENS, Bruch. On a willow in Clifton ings, York; with O. Sprucii—R. Spruce. 12. O. RIVULARE, Turn. Fr. Summer. Trees by the banks of the Skell, near Ripon-W. Brunton. Balderdale-R. Spruce. Banks of Codbeck and the Swale-J. G. Baker. Banks of the Leven, near Ayton-W. Mudd. 13. O. DIAPHANUM, Schrad. Fr. Spring. Trees, posts, and rocks; frequent. Fr. Summer. 14. O. STRIATUM, Hedw. O. lejocarpum, B. and S. Walls and trees; frequent. 15. O. LYELLII, H. and T. Fr. Summer. Laskill, Bilsdale, and woods about Mount St. John, near Thirsk-J. G. Baker. Ayton, Cleveland-W. Mudd. Trees near Rievaulx -John H. Davies. Forge valley, near Scarborough-A. O. Black. Gordale, near Malham.

Fr. Spring.

- O. PULCHELLUM, Smith. Fr. Spring. Mowthorpe dale, Castle Howard—R. Spruce. On elders, Cliff-rig, Ayton—W. Mudd. On trees near Pateley bridge.
- 17. O. DRUMMONDII, Hook. Fr. Summer.
 Lowdale, Hackness, and on junipers near the High force, and other places in Teesdale—R. Spruce. Very fine on the banks of Blea beck —A. O. Black. On young oaks above Boltby, near Thirsk, and below Higheliffe, Guisborough moor—J. G. Baker.
- 18. O. HUTCHINSLE, H. and T. Fr. Summer.
 On stones in the Greta—W. Borrer. On an old wall between Scawton and the Hambleton hotel—R. Spruce. The plant mentioned in the Flora under this name is a variety of anomalum.
- 19. O. COARCTATUM, Pal. Beauv. O. Bruchii, Brid. Frequent in the Castle Howard woods—R. Spruce.
- 20. O. CRISPUM, *Hedw.* Fr. Summer. O. Ludwigii, Flora, 136, is a form of this species.
- 21. O. PHYLLANTHUM, B. and S. On a tree on the south side of Heslington fields, near York—R. Spruce.

XXVI. BRYUM.

- 1. B. ANDROGYNUM, Hedw. Fr. May. Aulaeomnion, Schwaegr. Shady rocks below the High force—R. Spruce. Leckby carr, near Topcliffe—J. G. Baker. Ackworth, near Pontefract—John W. Watson. Aytón moor, Cleveland—W. Mudd. Rocks and dry banks near the Strid, Bolton, Wharfdale.
- 2. B. PALUSTRE, Swartz. Aulacomnion, Schwaegr.
- B. TRICHODES, Linn. Fr. August. Meesia uliginosa, Hedw. On damp basaltic rocks at Wince bridge; sparingly.
- 4. B. DEALBATUM, Dicks. Fr. June. Amblyodon, P. Beauv. Aysgarth force, Wensleydale—A. Watson. Bogs on Malham moor, and ground covered with lime on Stansfield moor.
- B. SQUARROSUM, Hedw. Paludella, Schwaegr. Abundant, and very fine, in Terrington north carr, near Castle Howard—H. Ibbotson, R. Spruce, M. B. Slater.
- 6. B. GRACILE, Wils. MSS. Fr. Spring. Orthodontium, Schwaegr. On rocks near the Strid, Bolton, Wharfdale—R. Spruce.
- B. CERNUUM, B. and S. Fr. Summer. Greta bridge, 1810-W. Borrer. Banks and walls in Teesdale; frequent. Castle Howard, &c. Rather scarce near York-R. Spruce. In the sandstone quarry on the south bank of the Swale, near Leckby-J. G. Baker. Stansfield moor, near Todmorden.

Fr. Summer.

- 8. B. INCLINATUM, B. and S. Fr. Summer. Very frequent, both in the high and low grounds—R. Spruce.
- 9. B. ULIGINOSUM, B. and S. Fr. Summer. Heslington fields, near York, and on tufa under the new river bridge, at Castle Howard—R. Spruce. Abundant at Whitby, and other places on the east coast—R. S. and H. Ibbotson. On stone in a pond at Ackworth-J. W. Watson.

Rocks near the upper waterfall at Mossdale head, Wensleydale-W. Brunton. Basaltic rocks at the High force, and other places in Teesdale—R. Spruce. Banks of the Rather, below Swarth fell—J. W. Watson. Rocks at the White force, Cronkley fell—J. G. Baker. Rocks above Howgill fells and Whernside-Rev. G. Pinder. Rocks above Ingleby Greenhow, Cleveland-W. Mudd. Limestone rocks on Malham moor.

- 11. B. ACUMINATUM, B. and S. Fr. July. Near the west end of Holwick scarr, Teesdale; sparingly-R. Spruce.
- 12. B. ELONGATUM, Dicks. Fr. Summer. Near Halifax-Dickson. Shady rocks at Scatcliffe wood, and one or two other places near Todmorden; sparingly.
- 13. B. NUTANS, Schreb. Fr. Summer. Walls and moory places; frequent.
- 14. B. CRUDUM, Huds. Fr. Summer. Mossdale head, Wensleydale—W. Brunton. Abundant amongst shady rocks at Wince bridge, and other places in Teesdale—R. Abundant amongst Spruce. Plentiful on the shady rocks above the Strid, Bolton abbey.
- 15. B. ANNOTINUM, Hedw. Fr. May. The gemmiferous state of this moss is very frequent; the fruit I have seen only in Teesdale and on Stockton forest-R. Spruce.
- 16. B. CARNEUM, Linn. Fr. Spring. Clifton Scope, near York-R. Spruce. Gillaleys, Castle Howard-M. B. Slater. Banks of Codbeck, and other places near Thirsk-J. G. Baker. Near Ayton, Cleveland-W. Mudd.
- 17. B. WAHLENBERGH, Schwaegr. Fr. Spring. B. albicans, Brit. Fl. Frequent on wet rocks in Eskdale-R. Spruce. Banks of Goadland beck-M. B. Slater. Kildale, Cleveland-W. Mudd. Damp places above Boltby, near Thirsk-J. G. Baker. Wet clayey banks, Blackclough, near Todmorden.

18. B. Pyriforme, Swartz. Fr. Summer. Rocks at Hornby and Helmsley-Teesdale. Walls at Heworth, near York, and on the bridge across the Wharfe, at Thorp-Arch—R. Spruce. Hebden bridge—S. Gibson. Walls of the Abbot's house, Fountain's abbey—J. G. Baker. Ackworth, near Pontefract—J. W. Watson. Walls near Ayton, Cleveland-W. Mudd. In an old stone quarry, by the roadside between Castleford and Ferry-bridge.

^{10.} B. ZIERII, Dicks. Fr. Summer.

^{19.} B. INTERMEDIUM, Brid. Fr. Summer.

Frequent on heaps of rubbish, and on mortar in walls, as well as in moist sandy situations—*R. Spruce.* Kirkham hill, near Castle Howard—*M. B. Slater.* Wall at Ackworth, near Pontefract—*J. W. Watson.* Walls of the Abbot's house, Fountain's abbey—*J. G. Baker.* Near Scarborough, and in several places in Teesdale— *A. O. Black.* Wet scarr, Blackclough, Langfield, near Todmorden.

20. B. TORQUESCENS, B. and S. Fr. Summer.

On a stone on the north side of Gormire-W. Borrer.

- B. PALLESCENS, Schwaegr. Fr. Summer.
 On rocks and sandy deposits near the Tees, at Wince bridge—R. Spruce. Wall at Stackhouses, near Settle—A. O. Black.
- 22. B. CAVIFOLIUM, Tayl. MSS.

Maizebeck, and in a stream on Holwick fell, Teesdale-R. Spruce.

23. B. GRACILENTUM, *Tayl. MSS.* Waste ground at Ganthorpe, near Castle Howard—*R. Spruce.*

24. B. BIMUM, Schreb. Fr. Summer.

B. ventricosum, Brit. Fl. in part. Frequent in the low grounds, Stockton forest, and other places near York—R. Spruce. Amongst the dales of the Hambleton hills—J. G. Baker. Moors near Ayton, Cleveland—W. Mudd. Wintersett, near Ackworth—J. W. Watson.

25. B. PSEUDO-TRIQUETRUM, Schwaegr. Fr. Summer. B. ventricosum, Brit. Fl. in part. Abundant in the sub-alpine parts of the county, scarcely descending to the plains—R. Spruce. Boggy ground in Flazendale—J. G. Baker; and above Boltby, near Thirsk —J. H. Davies. Marshy ground about Malham; frequent.

Fr. Autumn. Fr. Summer.

27. B. OBCONICUM, Hornsch.

Greta bridge—W. Borrer. On a wall by the road leading from Barnard Castle to Lartington. In the park quarry at Castle Howard—R. Spruce. Sandy hedgebank by the roadside between Thirsk and Thornton-lestreet; plentiful—J. G. Baker. Rainton heights, Hawnby–J. H. Davies.

- 28. B. CAPILLARE, *Hedw.* Fr. Summer. Walls, rocks, and roofs; common.
- 29. B. PALLENS, Swartz. Fr. Summer. B. turbinatum, Flora, 136.
- 30. B. CESPITITIUM, Linn. Fr. Summer.
- 31. B. ERYTHROCARPON, Schwaegr. Fr. May. Plentiful, and very fine, in moist sandy stubbles between Barmby and Woodhouse moors, near Pocklington. Stockton forest, near York—R. Spruce. Ackworth, near Pontefract—I. Brown.
- 32. B ATROPURPUREUM, W. and M. Fr. Summer. Very frequent near York and Castle Howard—R. Spruce. Rocks near Wince bridge, Teesdale—M. B. Slater. Stones near the railway bridge over the Codbeck—J. H. Davies. Roadside below

^{26.} B. ROSEUM, Schreb.

Westow, near Thirsk—J. G. Baker. On the top of the Hambleton hills, above Boltby—W. Robinson.

- B. ALPINUM, Linn. Fr. Summer. Frequent on low moist rocks in Teesdale—R. Spruce. Damp rocks at Hipping's farm, Stansfield.
- 34. B. JULACEUM, Schrad. Wince bridge, Teesdale, with B. atropurpureum—M. B. Slater. Plentiful on the banks of Blea beck, Cronkley fell, but barren— A. O. Black. Wet rocks on Greensclough, near Todmorden, near the border of the county.
- 35. B. ARGENTEUM, Linn.

36. B. MNIOIDES, Wils.

Mnium subglobosum, B. and S. Codhill bog, Sleddalc-W. Mudd. Dallow gill, Nidderdale-T. Simpson. Marshy ground on Stansfield and Longfield moors, near Todmorden.

- 37. B. PUNCTATUM, Schreb. Et seq. Mnium, Hedw.
- B. LIGULATUM, Schreb. M. undulatum, Hedw.

39. B. HORNUM, Schreb.

40. B. MARGINATUM, Dicks.

M. serratum, Brid. Hackfall, and Scotton, about a mile westward of Knaresborough—Rev. J. Dalton. Mossdale head, Wensleydale, and Whitcliffe, near Ripon—W. Brunton. Near Sedbergh—Rev. G. Pinder. Teesdale, and Lythe beck, Eskdale—R. Spruce. Gillaleys, Castle Howard—M. B. Sluter. Banks of Wharfe, between Bolton abbey and Barden tower.

Fr. Summer.

Bogs in the mountainous part of the county—Dr. Richardson. Hackfall, near Ripon—Rev. J. Dalton. Hedgebanks and woods near Thirsk, and other places in the north riding—J. G. Baker. Goadland beck—M. B. Slater. Ackworth, near Pontefract—I.Brown. In several places in Teesdale—A. O. Black. Abundant on the banks of the Wharfe, near Bolton abbey.

- 42. B. CUSPIDATUM, Schreb. Fr. Spring.
 Wall by the roadside between High Startforth and Lartington—A. O. Black. In fields amongst grass, Hareleywood, near Todmorden.
- 43. B. AFFINE, Brid. Fr. May. Frequent near York and Castle Howard. Fruiting sparingly on Terrington carr—R. Spruce. Frequent in boggy ground near Thirsk, and in the dales of the Hambleton hills—J. G. Baker. Damp ground
- 44. B STELLARE, Hedw.

above Boltby-J. H. Davies.

Gillaley's wood and Mowthorpe dale, near Castle Howard—*R*. *Spruce.* Banks of Goadland beck—*M. B. Slater.* Shady rocks in Flazendale—*J. G. Baker.* Plentiful amongst rocks near the Strid, and other places on the banks of the Wharfe, near Bolton abbey.

Fr. Spring.

Fr. Spring. Fr. Spring.

Fr. Winter.

Fr. Spring, Summer.

Fr. Winter, Spring.

^{41.} B. ROSTRATUM, Schrad.

XXVII. CINCLIDIUM.

1. C. STYGIUM, Wahl.

Fr. Summer.

In a small bog by the roadside near a place called Middlehouse, between Arncliffe and Malham. Sides of springs near the summit of Ingleborough.

XXVIII. BARTRAMIA.

1. B. POMIFORMIS, *Hedw.* Fr. Spring. The larger form (B. erispa, Brid.) occurs on rocks in Teesdale— R. Spruce; and Flazendale—J. G. Baker.

2. B. ITHYPHYLLA, Brid. Fr. Spring, Summer.

Plumpton Rocks, near Copgrove—*Rev. J. Dalton.* Mossdale head, Wensleydale—*W. Brunton.* Frequent on basaltic rocks on Cronkley and Holwick scarrs, and below the High force, Teesdale—*R. Spruce.* Rocks at the White force, Cronkley fell, with B. gracilis—*J. G. Baker.* Mossdale head, Wensleydale—*S. Hailstone.*

3. B. GRACILIS, Floerke.

Fr. Spring, Summer.

B. Ederi, Swartz. Rocks at the White force, Teesdale—R. Spruce, J. G. Baker. Mossdale head, Wensleydale—S. Hailstone. Banks of the Wharfe, near Bolton—R. Spruce. Rocks at Battersby, Cleveland—W. Mudd.

Fr. Summer.

5. B. CALCAREA, B. and S.

Moist springy places, Teesdale, and under the new river bridge at Castle Howard—*R. Spruce.* Boggy ground near Rievaulx, and Heseltine gill, near Settle—*W. Borrer.* Banks of the stream above Boltby, near Thirsk, and on the edge of Guisborough moor, near Higheliff—*J. G. Baker.* Banks of the Ure, near Aysgarth force—*A. Watson.* – Littondale, near Arneliffe.

6. B. HALLERIANA, Hedw. Fr. Summer.

In the clefts of basaltic rocks near the High force, Teesdale—R. Spruce. Dentdale and Howgill fells, near Sedbergh—Rev. G. Pinder. Banks of the Rather, below Swarth fell—J. W. Watson. Rocks near Ingleby Greenhow, Cleveland—W. Mudd.

7. B. ARCUATA, Brid. Fr. Winter.

Boggy part of Houghton moor—Withering. Mossdale head—W. Brunton. Amongst rocks in Teesdale; plentiful—R. Spruce, &c. Cantley and Dent, near Sedbergh; in fruit abundantly, 1846—Rev. G. Pinder. Banks of the Rather, below Swarth fell—J. W. Watson. Shady rocks in Flazendale—J. G. Baker. Banks of Goadland beck, Eskdale—M. B. Slater. Helk's wood, Ingleton; and in fruit, above Clapham, Craven, 1850.

XXIX. BUXBAUMIA.

1. B. APHYLLA, Haller.

Fr. Spring.

Heathy ground on Sawley moor, near Ripon-T. Simpson

A, *B. and S.* Fr. Summer.

^{4.} B. FONTANA, Swartz.

SECTION II. PLEUROCARPI.

SUBSECTION I. GYMNOSTOMI.

XXX. HEDWIGIA.

1. H. ESTIVA, Hooker. Fr. Autumn. Anictangium compactum, Schwaegr. Teesdale—R. Spruce. Rocks at the White force and High force—A. O. Black. Rocks at Hell gill, Guisborough moor—W. Mudd. Moist rocks in Greensclough, Todmorden, near the boundary of the county.

SUBSECTION II. PERISTOMI.

DIV. I. APLOPERISTOMI.

XXXI. PTEROGONIUM.

1. P. GRACILE, Swartz.

Teesdale (B. G. 727) reports this alpine species as occurring on "trunks of trees near Castle Howard, but scarce." Mr. Spruce has found it in Teesdale, but only on the Durham side of the river.

XXXII. LEUCODON.

1. L. SCIUROIDES, Schwaegr. Fr. Summer. Braunia, B. and S. Trunks of trees and bushes; common.

DIV. II. DIPLOPERISTOMI.

XXXIII. NECKERA.

1. N. PUMILA, Hedw.

Fr. Winter.

Fr. Winter.

Trunks of trees in Ray wood, Castle Howard; but very rare—*Teesdale*. Gillaleys wood, Castle Howard—M. B. Slater. Trees in Holwick wood, Teesdale—R. Spruce. Studley woods, near Ripon— J. G. Baker.

2. N. CRISPA, Hedw.

Rocks at Hornby, but seldom in fructification—Teesdale. Mackershaw wood, near Ripon—W. Brunton. Rocks in Teesdale and Wharfdale—R. Spruce. Rocks on the western edge of the oolitic moorlands; plentiful, but becoming rarer amongst the dales eastward—J. G. Baker. Went Vale, near Pontefract—J. W. Watson.

XXXIV. ANOMODON.

- A. CURTIPENDULUM, H. and T. Fr. Spring. Mossdale head, Wensleydale—W. Brunton. Walls at Laskill, Bilsdale, and other localities—J. G. Baker. On the park wall at Castle Howard—M. B. Slater. Walls and stones in several localities in Teesdale—A. O. Black. Common on trees and walls in Bolton woods, and near Barden tower, Wharfdale.
- 2. A. VITICULOSUM, *H. and T.* Fr. Spring. *Leskea, B. and S.* Rocks and trees; frequent.

XXXV. DALTONIA.

1. D. HETEROMALLA, H. and T. Fr. Spring. Trunks of trees in a wood at Castle Howard, called Mount Zion; but very rare—*Teesdale*. In fruit on an apple-tree on Eskdale side, 1842—R. Spruce. Near Carlton, Cleveland—W. Mudd.

XXXVI. FONTINALIS.

1. F. ANTIPYRETICA, Linn.

Fr. Summer.

2. F. SQUAMOSA, Linn. Fr. Summer.

In the Tees, above Middleton—*Winch Fl. N.D.* In the bed of the Tees, just above the High force—A.O.Black. In the Wharfe, near Bolton abbey—S. *Gibson*. In the Rye, near Laskill, Bilsdale—J.G. Baker. Baysdale, Cleveland—W. Mudd. Gorple clough, near Heptonstall.

XXXVII. HOOKERIA.

1. H. LUCENS, Smith.

Fr. Spring.

XXXVIII. ISOTHECIUM.

1. I. INSIDIOSUM, Mont. On limestone rocks, Hildenley quarry, near Malton-R. Spruce, &c.

XXXIX. LESKEA.

1. L. INCURVATA, Hedw. Hypnum atrovirens, Dicks. Flora, 140. Shady woods in the north riding—Teesdale.

- L. PULVINATA, Wahl. Fr. Summer. Abundant on trees, in situations liable to inundation from the Ouse, near York. By the river Cock, near Tadcaster—R. Spruce.
- 3. L. POLYCARPA, Ehrh. Fr. Summer. H. medium, Dicks. Flora, 139. Trees by the bank of the Skell, near

Ripon—W. Brunton. About the roots of willows, in the marshes near Beverley—Teesdale. On willows by Holgate beck, near York, and roots of trees in Eskdale—R. Spruce. Plentiful on trees liable to inundation, along the course of Codbeck and the Swale, near Thirsk—J. G. Baker. Ayton, Cleveland—W. Mudd. Frequent on trees near Tadeaster.

 L. POLYANTHA, Hedw. Fr. Winter, Spring. Hypnum, Hook. Isothecium, B. and S. On trees by the Foss, near York, and near Huntington. On a tree stump in Askham bogs. Near Castle Howard and Crambe; but sparingly—R. Spruce. Tree near Welburn mill—M. B. Slater. Bolton, Wharfdale—S. Gibson. On willows, Holmes, Thirsk, and a stump in Flazendale—J. G. Baker. On old «horns by the roadside, between Broughton Hall and Helsbeck station.

5. L LATEBRICOLA, Wils. MSS.

On decayed roots of old trees in Stanley clough, Hareley wood, near Todmorden; very rare.

- 6. L. SUBRUFA, Wils. MSS. Rocks near the White force, Teesdale—R. Spruce. Moist shady rocks in Gordale, and other places near Malham; and at Eaves wood and Ragley Naze, near Heptonstall.
- 7. L. SPRUCH, Bruch.

A single patch with perichætia, on a shady basaltic rock on the bank of the Tees, below Wince bridge—*R. Spruce.* Moist shady rocks near a waterfall in Greensclough, and also in Shedden clough, near Todmorden, near the border of the county; very sparingly.

XL. HYPNUM.

1.	H. TRICHOMANOIDES, Linn.	Fr. Spring.
	Omalia, B, and S.	
2.	H. COMPLANATUM, Linn.	Fr. Spring.
	Omalia, Wils. MSS. Neckera,	B. and S.
3.	H. RIPARIUM, Linn.	Fr. Spring.
	Damp places; not unfrequent.	

4. H. UNDULATUM, Linn, Fr. Spring.

- 5. H. DENTICULATUM, Linn. Fr. Summer.
- H. SYLVATICUM, Schwaegr. Fr. Summer. On shady rocks below Whitstonecliff, and other places near Thirsk --J. G. Baker.
- H. ELEGANS, Hook. Musc. Exot. H. planifolium, Brid. Near Ayton, Cleveland—W. Mudd. Gillaleys wood, Castle Howard—M. B. Slater. Rocks in woods near Todmorden, but always barren.
- 8. H. DEPRESSUM, Bruch

		ood near the Castle Howard railway eks in Gordale, near Malham, and at rare.
9.	H. TENELLUM, Dicks.	Fr. Spring.
	H. Algerianum, Brid.	
10.	H. SERPENS, Linn.	Fr. Spring, Summer.
11.	H. POPULEUM, Hedw.	Fr. Winter.
12.	H. MOLLE, Dicks.	
	Teesdale reports this alpine sp at Crambe beck bridge, betwe	ecies, doubtless in error, from "rocks en York and Malton."
13.	H. STRAMINEUM, Dicks.	Fr. May.
	Terrington carr— <i>Teesdale</i> . Co and sides of streams at Langf morden; fruiting rarely.	dhill bog, Sleddale— <i>W. Mudd.</i> Bogs held and Stansfield moors, near Tod-
14.	H. MURALE, Hedw.	Fr. Winter.
	Old walls and moist rocks; fre	equent in the limestone districts.
15.	H. PURUM, Linn.	Fr. Winter.
	Woods and hedgebanks; very	
16.	H. PILIFERUM, Schreb.	Fr. Winter.
	Frequent in similar situations dale, Castle Howard—R. Spra	. Fruiting abundantly in Mowthorpe
17.	H. SCHREBERI, Willd.	Fr. Winter.
	Woods and heathy ground; fr	equent.
18.	H. MONILIFORME, Wahl.	TT TIL
	H. julaceum, Schwaegr. On Po	ennygnent—H. 1000tson.
19.	H. HETEROPTERUM, Bruch.	Schwaegr. A single tuft on a wet cliff
	in Eskdale—R. Spruce. Shad	y rocks above Boltby and Gormire, tackhouses, near Settle—A. O. Black.
20.	H. PLUMOSUM, Linn.	Fr. Winter.
	Walls, roofs, and rocks about	· •
21.	H. CÆSPITOSUM, Wils. MSS.	Fr. Winter.
	Roots of trees near York, and <i>R. Spruce</i> .	by the river Cock, near Tadcaster-
22.	H. PULCHELLUM, Dicks.	Fr. July.
	wood, near Heptonstall: rar	ocks in Teesdale— <i>R. Spruce.</i> Gibson re. If H. pulchellum, <i>Dicks.</i> , and nct, (<i>vide</i> Phyt. ii. 152,) the Teesdale and the Todmorden plant to the
23.	H. RUFESCENS, Dicks.	Fr. July.
	Marshy ground on Malham m	oor, Craven.

24.	H. SERICEUM, Linn.	Fr. Winter.
	Rocks, walls, and trunks of t	rees; frequent.
25.	H. SALEBROSUM, Hoffm. (not H. a	
	Trunks of trees, Oakcliffe woo	od, KirkhamM. B. Slater.
26.	H. GLAREOSUM, Bruch.	Fr. Winter.
	stone districts; but I have se YorkR. Spruce. Hedgebank	Hoffm.) Frequent in sandy and lime- een fruit only in Stockton forest, near a between Thirsk and Sutton-under- aces—J. G. Baker. Near Cleveland
27.	H. LUTESCENS, Huds.	Fr. Winter.
	Hedgebanks and walls; frequ	ent in the limestone districts.
28.	H. NITENS, Schreb.	Fr. Spring.
	<i>Spruce.</i> Near Rievaulx abbey	in Terrington carr, near Malton— R , , and in a bog below the Head hagg, Boggy ground at the bottom of Fla-
29.	H. ALBICANS, Neck.	Fr. Winter.
	the Ure, near Clifton castle- Ibbotson : Boltby, &cJ. G.	dgebanks; not unfrequent. Banks of W. Mudd. Roofs at Terrington—H. Baker; and Thirsk—J. H. Davies. h ballast hills—J. W. Watson. Dry
30.	H. ALOPECURUM, Linn.	Fr. Winter.
31.	H. dendroides, Swartz.	Fr. Winter.
	Climacium, Mohr. Woods and	l boggy ground; common.
32.	H. CURVATUM, Swartz.	Fr. Winter.
	Isothecium, B. and S. Rock common.	s, walls, and trunks of trees; very
33.	H. MYOSUROIDES, Linn.	Fr. Winter.
	In similar situations to the pr	eceding; frequent.
34.	H. splendens, <i>Hedw</i> .	Fr. Spring.
35.	H. PROLIFERUM, Linn.	Fr. Winter.
36.	H. RECOGNITUM, Hedw.	Fr. Summer.
	wood, Ingleton-W. Wilson.	ne under the shade of trees at Helk's Hildenley quarry, near Malton— <i>M</i> . n High Startforth and Lartington—
37.	H. prælongum, Linn.	Fr. Winter, Spring.
	The variety H. Swartzii, <i>Tun</i> tions, but is always barren.	n., is frequent in damp, shady situa-
38.	H. STOKESII, Turn.	
	Damp rocks at the north-ea $J. G. Baker.$	st corner of Gormire, near Thirsk—
0.0	TT THE WORLD	E. Winter

39. H. PUMILUM, Wils. MSS. Fr. Winter.

On calcareous rocks in Mowthorpe dale—R. Spruce. Rocks below Rolston scarr, near Thirsk-J. G. Baker, Shady rocks near Todmorden.

40. H. TEESDALII, Dicks.

On trunks of trees in woods at Castle Howard, about 1770; and on roots of trees near Beverley—*Teesdale*. What is probably the same occurs on a stone in Rigg mill beck, near Whitby—*Miss A. S.* Braithwaite; and on Kilnsey crag; sparingly.

- Fr. Winter. 41. H. FLAGELLARE, Dicks. Abundant by the Esk and Goadland beck-R. Spruce. Bolton. Wharfdale—S. Gibson. Banks of the beck above Boltby, near Thirsk -J. G. Baker. Frequent on wet shady rocks, by the side of streams amongst the hills near Todmorden.
- 42. H. BLANDOVII, W. and M. Fr. Spring. Terrington carr, near Malton-R. Spruce, H. Ibbotson.

Fr. Winter. 43. H. CRASSINERVIUM, Tayl.

> H. pseudo-piliferum, B. and S. On limestone throughout the county; rarely fruiting, but found in that state in Mowthorpe dale-R. Spruce. Banks of the stream above Boltby, near Thirsk-J. G. Baker. Oxcar's wood, Castle Howard-M. B. Slater. Rocks near the Wharfe at Bolton abbey, and at Malham Cove.

44. H. RUTABULUM, Linn.

45. H. RIVULARE, B. and S.

Banks of Codbeck, the Swale, and the streams amongst the Hambleton hills, &c.; plentiful-J. G. Baker. Goadland dale-M. B. Slater. Frequent on stones in rivulets near Todmorden.

46.	H. VELUTINUM, Linn.	Fr. Winter.
47.	H. RUSCIFOLIUM, Neck.	Fr. Winter.
48.	H. STRIATUM, Schreb.	Fr. Winter.
49.	H. CONFERTUM, Dicks.	Fr. Winter.
50.	H. CUSPIDATUM, Linn.	Fr. Winter.
51.	H. CORDIFOLIUM, Hedw.	Fr. Spring.

Boggy places; not unfrequent. Near Ripon-W. Brunton. Boggy part of Swinemoor, Beverley-Teesdale. Wet ground between Copgrove and Newby-Rev. J. Dalton. Ganthorpe moor, Castle Howard -H. Ibbotson. Banks of Gormire, near Thirsk, especially at the north-east corner-J. G. Baker.

51. H. POLYMORPHUM, Hedw. (not H. and T.) Fr. Spring. H. Sommerfeltii, Myrin. On wet limestone at Crambeck, and on the ruins of Kirkham abbey-R. Spruce.

53. H. CHRYSOPHYLLUM, Brid. Fr. Spring. H. polymorphum, H. and T. (not Hedw.) Jackdaw crag, near Tadcaster-R. Spruce. On the park wall at Castle Howard-H. Ibbotson. Stony places opposite Middleton, Teesdale-A. O. Black.

54. H. STELLATUM, Schreb. Fr. Spring. Boggy ground, especially in moory situations; frequent.

Fr. Winter.

Fr. Winter.

55. H. ELODES, Spruce.

56.	H. LOREUM, Linn.	Fr.	Winter.
57.	H. TRIQUETRUM, Linn.	Fr.	Winter.

58. H. BREVIROSTRE, Ehrh. Fr. Winter. Castle Howard woods—H. Ibbotson. Hedgebank between Carlton Miniott and Skipton bridge, near Thirsk—J. G. Baker. Abundant in Bolton woods, Wharfdale, and in Helk's wood, Ingleton.

59. H. SQUARROSUM, Linn. Fr. Winter.

60. H. FILICINUM, Linn. Fr. Spring.

Damp places and marshy ground; common.

61. H. PALUSTRE, Linn. Fr. Spring, Summer.

Damp stones and rocks in rivulets; frequent.

62. H. OCHRACEUM, Turn. Fr. May. Stones in the Swale, below Topcliffe bridge—J. G. Baker. Abundant on wet stones in the moorland rivulets near Todmorden. In fruit on dripping rocks in Gorple clough, Heptonstall.

63. H. FLUITANS, *Linn.* Fr. Spring, Summer. In pools and streams and wet hollows, amongst the moorlands; frequent.

64. H. FLUVIATILE, Swartz.

Stones in rivers in the north riding—*Teesdale*. Very common on stones in all the rivulets about Ripon—*W. Brunton*. Stones in the Swale, below Aisenby—*J. G. Baker*. On submerged stones in the Wharfe, at Bolton abbey.

65. H. ADUNCUM, *Linn.* (not H. and T.) Fr. May. Boggy places; not unfrequent.

66. H. REVOLVENS, Swartz. Fr. Spring.

H. aduncum \approx revolvens, Brit. Fl. in part. Side of streamlets amongst the Hambleton hills near Rievaulx, and other places—J. G. Baker. In a bog near Malham tarn, and on Longfield moor, near Todmorden.

67. H. LYCOPODOIDES, Schwaegr.

H. aduncum β rugosum, Brit. Fl. Peat mosses in the north-riding-Teesdale. Stockton forest, near York-R. Spruce. Pilmoor, near Boroughbridge-J. G. Baker.

68. H. UNCINATUM, Hedw. Fr. Spring.

69. H. RUGULOSUM, W. and M.

Giggleswick scarrs, near Settle—*R. Spruce.* Plentiful amongst Gordale scarrs, and below Malham cove.

70. H. COMMUTATUM, Hedw. Fr. Spring.

Damp ground and borders of streams, especially in limestone districts; frequent. The variety condensatum, Wils. MSS., (H.

aduncum α revolvens, *Brit. Fl.*, *in part.*) is common in damp hollows, especially in moorland districts.

- 71. H. SCORPIOIDES, Linn. Fr. May.
 Stockton forest, near York—R. Spruce. Battersby moor, Cleveland, —W. Mudd Plentiful in bogs on Malham moor.
- 72. H. PRATENSE, Koch.

Boggy ground above Boltby and between Sowerby and Dalton, near Thirsk—J. G. Baker. Damp banks, Hareley wood, near Todmorden.

- 73. H. INCURVATUM, Schrad. Fr. June. Stones in the Tees, a little below the High force—R. Spruce.
- 74. H. RESUPINATUM, Tayl.

H. multiflorum, Tayl. olim. H. cupressiforme γ tenue, Eng. Fl. Everywhere, with H. cupressiforme, from which Bruch will not admit that it is distinct—R. Spruce, &c.

76. H. CRISTA-CASTRENSIS, Linn. Fr. Winter.

In fruit on the south side of the Tees, near Gainford—J. Backhouse. Castle Howard park—H. Ibbotson. In Dentdale, near Sedberg; sparingly—Rev. G. Pinder. Amongst the heather on the summit of Cronkley fell, Teesdale, and very fine near the ebbing and flowing well, Settle—A. O. Black.

77. H. MOLLUSCUM, *Hedw.* Fr. Winter. Rocks, walls, and wooded banks; common,

M

^{75.} H. CUPRESSIFORME, Linn. Fr. Winter, Spring.

Summary of Number of Species.

				Native.		Incognit.
1.	Andreaceæ	•••	•••	3		••
2.	Sphagnaceæ			8	•••	
3.	Phascaceæ	•••		8	••	
4.	Archidiaceæ			1	•••	•••
5.	Bruchiaceæ		•••	3	•••	
6.	Weisiaceæ			11		
7.	Dicranaceæ			21	•••	2
8.	Leucobryaceæ	•••		1	•••	•• 1
9.	Fissidentaceæ			8		·
10.	Seligeriaceæ		•••	7	•••	
11.	Pottiaceæ			6		
12.	Trichostomaceæ		•••	28		2
13.	Distichiaceæ			1		
14.	Tetraphidaceæ	•••		2	•••	
15.	Encalyptaceæ			4	•••	
16.	Zygodontaceæ		•••	2		
17.	Orthotrichaceæ		•••	21	•••	
18.	Ptychomitraceæ	•••		1	•••	
19.	Grimmiaceæ			14		
20.	Hedwigiaceæ		•••	2		
21.	Ripariaceæ			1	••	
22.	Schistotegaceæ			1	•••	
23.	Sphlachnaceœ			5		-1
24.	Disceliaceæ			1		
25.	Funariaceæ	•••		5		
26.	Meesiaceæ			3	•••	
27.	Bartramiaceæ	•••		7		
28.	Bryaceæ			42		
29.	Polytrichaceæ			11		
30.	Buxbaumiaceæ		•••	2		
31.	Hypnaceæ			93	•••	2
			Total	323		7

ADDENDA.

WHILST the work has been passing through the press, various additional items of information have come to hand. In order that it may be rendered as complete as possible, I subjoin in this place a notice of some of the more important.—J. G. B.

80. CAMELINA SATIVA, Crantz.

Cornfields at Maltby, near Doncaster—Rev. G. E. Smith. Fallow fields near Roche abbey—Rev. G. Pinder.

- 87. CARDAMINE IMPATIENS, Linn. Dowker gill, near Sedbergh—Rev. G. Pinder.
- 179. ARENARIA TENUIFOLIA, Linn.

The Rev. G. E. Smith informs me, that he has collected this species on "rocks at Maltby;" thus confirming the accuracy of Salt's report, and Mr. Moore's supposition (*vide* pp. 51, 52).

ERODIUM CYGNORUM, Nees.

The Rev. G. Pinder has obligingly furnished me with specimens of a plant identified by Babington with E. cygnorum, of Nees von Esenbeck, collected on "waste ground near Guiseley," during the present summer (1854). It is a native of West Australia, and he suggests that the seeds have been introduced amongst wool.

262. MEDICAGO DENTICULATA, Willd.

On old rubbish heaps near Guiseley, 1853-Rev. G. Pinder.

329. POTENTILLA VERNA, Linn.

Smeaton crags, near Doncaster—P. Inchbald. Went vale, near Pontefract—W. Robinson.

357. Alchemilla Alpina, Linn.

I am informed by the Rev. G. Pinder, that this species occurs also in Dent dale, but not so plentifully as about Cautley.

372. EPILOBIUM VIRGATUM, Fries.

The Gormire plant is identified by Babington with that described in the "Manual of British Botany," under this name. During the present season, I have observed it on the edge of Guisborough moor, near Highcliffe, and also amongst the ballast hills at Middlesborough. 340-3. RUBUS SUBERECTUS, Anders.

In the plantation near the vicarage, at Cantley-Rev. G. E. Smith.

417.* SEDUM RUPESTRE, Smith.

This species grows upon garden walls at Rievaulx. Perhaps the reported Guisborough station may be (or have been) similar in character.

520. GALLICM PUSILLUM, Smith.

During the present season, I have collected this species on the rocky banks of the Ure at Aysgarth force, in Wensleydale. A Galium which grows amongst the rocks at the White force, in Teesdale, is probably the G. commutatum of Jordan; but whether it is a form of this species or G. saxatile, or may be specifically distinct from both, I cannot at present undertake to suggest.

572. HIERACIUM CÆSIUM, Fries.

With reference to specimens from the Hambleton hills, of the plant given under this name, which I submitted to his consideration, M. Jordan, of Lyons, remarks—"Il est, à mon avis, très different de l' H. cæsium, *Fries.*"

582.* HIERACIUM GOTHICUM, Fries.

On the top of the moor above Ingleby Greenhow, Cleveland !---W. Mudd.

580. HIERACIUM CROCATUM, Fries.

On the top of the moor above Ingleby Greenhow, Cleveland, with H. gothicum and umbellatum !— W. Mudd.

676. CAMPANULA PATULA, Linn.

Between Swinton and Doncaster-Rev. G. E. Smith.

707. Pyrola rotundifolia, Linn.

In the sixth edition of Hooker and Arnott's "British Flora," I observe that "Castle Eden, Dene, *Yorkshire*," is given as a locality for this species. My herbarium contains an example which may be regarded as representing the variety arenaria, from that locality, which is, however, not in Yorkshire, but near Hartlepool, in Durham.

745. VERBASCUM VIRGATUM, With.

Alien.

Specimens of this species, from three Yorkshire stations, are preserved in my herbarium; but at present it is known only as a casual straggler from garden cultivation.

928. Schoberia fruticosa, Meyer.

Alien?

In considerable abundance on the sea-bank to the east of the docks at Middlesborough, 1854!—*T. Simpson.* It is quite probable that the plant may be a veritable native at this station; but, as it is so near the docks, I prefer to regard, for the present, this point as uncertain. I have myself seen two or three bushes of it, during the present season, on the side of the docks nearest the ballast hills.

Roadside between Redmire and Carperby, in Wensleydale, and banks of the Ure, near Wensley, 1854-R. D. Carter and J. G. B.

946. RUMEX ALPINUS, Linn.

Alien.

I am indebted to the kindness of the Rev. G. Pinder, for specimens of this species from "Menstone, near Otley, Wharfdale."

1077. TULIPA SYLVESTRIS, Linn.

Wood near Heath, Wakefield-Rev. G. Pinder.

1111. ALISMA NATANS, Linn.

Native. Atlantic?

Upwards of half a century after its original publication, the Rev, G. Pinder has confirmed the accuracy of Teesdale's suggestion. that this plant grows in the vicinity of the merc at Hornsea. The same learned botanist believes that he has also observed it from a train "in ditches by the railway side, between York and Sherburn."

1184b. SCIRPUS GLAUCUS, Smith.

Amongst the docks at Middlesborough !-- W. Foggitt.

1240. CAREX LÆVIGATA, Smith.

Dr. Ainley informs me, that this species is frequent in the vicinity of Bingley.

1324. GLYCERIA DISTANS, Wahl.

Plentiful between Sheffield and Gainsborough-Rev G. E. Smith.

1390. LASTREA SPINULOSA, Presl.

Woods at Arncliffe, near Egton, Eskdale-Rev. G. E. Smith.

1408. HYMENOPHYLLUM WILSONI, Hook.

Howgill fells, near Sedbergh—Rev. G. Pinder. Foal's foot, Ingleborough—J. Nowell and A. Stansfield.

PHASCUM PATENS, Hedw.

Wood near the end of Gilla leys, Castle Howard; sparingly— A. O. Black.

SPHAGNUM LARICINUM, Spruce.

"Sphagnum laricinum is known only as found in Terrington carr, by Mr. Spruce. I can make nothing of it, except as an anomalous form of S. contortum, and have accordingly noticed it as a variety of that species, differing in no essential character, unless in the cortical cellules of the stem, which are not in a single row or stratum, as in all normal states of contortum. As for the reticulation of the leaf, I have aquatic states of contortum perfectly coincident"—W. Wilson, in litt. Nov. 7th, 1854.

GYMNOSTOMUM CONICUM, Schwaegr.

Banks near Feliskirk, and roadside between Thirsk and Sutton-J. H. Davies.

GYMNOSTOMUM DONIANUM, Smith.

Crevices of basaltic rocks on the Yorkshire side of the Tees, near

Wince bridge—A. O. Black. Wet shady rocks in a deep ravine below Lumb bank mill, near Heptonstall—J. Novell

GYMNOSTOMUM MICROSTOMUM, Hedw.

Cronkley scarrs, Teesdale—A. O. Black.

Splachnum ampullaceum, Linn.

Downholme moor, near Richmond-Jos. Ward.

WEISSIA PUSILLA, Hedw.

Rocks on the west side of Forge valley, and in Raincliffe wood, near Scarborough—A. O. Black.

WEISSIA VERTICILLATA, Schwaegr.

Banks of the Ure, at Aysgarth force, Wensleydale.

GRIMMIA MARITIMA, Turn.

On the cliffs south of the Spa, at Scarborough—A. O. Black.

DIDYMODON AQUATICUS.

"'Didymodon aquaticus, Brid?' mentioned in Spruce's list, has reference to a moss which I found near Malham, and could not then identify. Since then, I am satisfied that Dillenius' moss, referred to by Bridel, is Racomitrium protensum; and the Malham moss I now regard as a very peculiar barren form of Tortula fallax, having the leaves much recurved and squarrose. It may, however, turn out to be a distinct species, whenever fruit shall be obtained. This form or species, I think, will be found rather frequent in limestone districts, on banks"—W. Wilson, in litt. Nov. 7th, 1854. I have lately received fine specimens of the same moss from Ingleborough, (coll. J. Nowell.) and noticed it in the vicinity of Thirsk.

DIDYMODON CAPELLACEUS, Swartz.

Very fine at the White force, and other places in Teesdale—A.O.Black.

FISSIDENS CRASSIPES, Wils. MSS.

Stones in the Codbeck, near the bridges at Thirsk and Sowerby— J. H. Davies. Very fine on stones in the Swale, near the bridge at Topcliffe. Banks of Guisborough beck, below Marske mill.

FISSIDENS OSMUNDOIDES, Hedw.

On the Yorkshire side of the Tees, between the High force and Wince bridge—A. O. Black.

DICRANUM FALCATUM, Hedw.

Rocks on the summit of Cronkley scarrs, Teesdale—A. O. Black.

DICRANUM SQUARROSUM, Schrad.

In fruit on the bank of the Tees, just above the High force—A. O.Bläck. Damp ground above Boltby, and on the edge of Guisborough moor, near Highcliffe.

DICRANUM FUSCESCENS, Turn.

D. congestum, Brid. Rocks at Higheliffe, near Guisborough.

ORTHOTRICHUM LYELLII, H. and T.

Trees on the edge of Guisborough moor, below Highcliffe.

BRYUM SQUARROSUM, Hedw.

A single specimen in fruit at Terrington carr, Sept. 1854!-A. O. Black. This is, I believe, the first time that this species has been found in Britain, in a state of fructification.

BRYUM WAHLENBERGH, Schwaegr.

Scalby, Raincliffe wood, and Forge valley, near Scarborough. Gillaleys wood, near Castle Howard. Terrington carr, and woods near Ganthorpe. Pientiful in Teesdale—A. O. Black. Boggy ground on the edge of Guisborough moor, near Higheliffe.

BRYUM INTERMEDIUM, Brid.

A curious form on an alder tree overhanging the Codbeck, between Sowerby-and Dalton—J. H. Davies. Damp sandy ground on Carlton moor, near Thirsk—G. R. Baker.

BRYUM PALLESCENS, Schwaegr.

What is probably this species occurs on walls at Middleham, in Wensleydale.

BRYUM ATRO-PURPUREUM, W. and M.

On the south bank of the Swale, near the sand quarry at Leckby.

BRYUM ROSTRATUM, Schrad.

Banks above Redmire, in Wensleydale.

LESKEA POLYANTHA, Hedw.

Trees on the banks of the Ure, at Aysgarth force, Wensleydale.

HYPNUM SYLVATICUM, Schwaegr.

Shady rocks below Highcliffe, and other places in Cleveland.

HYPNUM FLAGELLARE, Dicks.

On the banks of Guisborough beck, between Marske mill and Saltburn

HYPNUM FLUVIATILE, Swartz.

Stones in the Ure, at Aysgarth force, Wensleydale.



Index to the Genera.

			PAGE.	1			PAGE.	1			PAGE.
Acer .				Arbutus .			. 92	Bryum .			. 165
Aceras	•		119		•		. 76	Bunium .	•		75
Achillæa .		•	. 90			•	. 150	Bupleurum	•	•	. 75
Aconitum .	•		. 30 40		·		. 100	Butomus	•		124
		•	. 126			•	. 51	Buxbaumia	•	•	. 169
Acorus .	•		40		•		111	n	•		
Actæa		•	.143			•	. 106	Cakile	•	•	112
Adiantum .	•		• 145 38		•		. 106		•		. 42
Adonis		•				٠		Calamintha	•	•	101
Adoxa .	•			Arrhenatherum	ι.			Callitriche .	•		. 69
Ægopodium .		•	74			•	87	Calluna .	•	•	92
Æthusa .	•		. 75		•		. 59	Caltha .	•	•	39
Agrimonia .		•	61			٠		Camelina .	•		. 44
Agrostis .	•		. 134		•		. 135	Campanula	•	•	90
Aira		•	135			•	111	Campylopus	•		. 159
Ajuga .	•		. 101		•		. 79	Capsella .	•	•	43
Alchemilla .		•	66			•	141	Cardamine	•		. 45
Allium .	•		. 121		•		. 142	Carduus .	•		85
Allosorus .		•	141			•	88	Carex .			. 130
Alnus .				Astragalus.			. 58	Carlina .			86
Alopecurus .		•		Athyrium .			142	Carpinus .			. 113
Althæa .			. 53				. 107	Carum .			69
Alyssum .				Atropa			95	Castanea .			. 113
Ammophila	•			Avena .			. 135	Catabrosa			136
Anacharis .			123	Ballota			101	Caucalis .			. 77
Anagallis .	•		. 105	Barbarea .			. 45	Centaurea			86
Anchusa .				Barkhausia .			84	Centranthus			. 79
Andræa .			. 149	Bartramia .			. 169	Centunculus			106
Andromeda .			92	Bartsia			97	Cerastium			. 52
Anemone .			. 38	Bellis.			. 89	Ceratophyllun	1		69
Angelica .			76	Berberis			70	Ceterach .			. 140
Anictangium			153	Beta			. 108	Chærophyllun	1		77
Anomodon .			171	Betula			114	Cheiranthus			. 46
Anthemis .			. 90	Bidens .			. 86	Chelidonium			41
Anthoxanthum			133	Blechnum .			143	Chenopodium			. 107
Anthriscus			77	Blysmus .			. 129	Chlora .			98
Anthyllis .			57	Borago			104	Chrysanthemu	m	-	. 89
Antirrhinum				Botrychium			. 144	Chrysospleniu			72
Apargia	·	. `	81	Brachypodium	-		139	Cichorium .		•	. 85
Apera .		· .	134	Brassica .			. 46	Cicuta .	. '		74
Apium				Briza .			137	Cinclidium .	•	-	. 169
Aquilegia .		•		Bromus .		•	. 138	Cinclidotus	. •		162
Arabis	•			Bryonia	•		69		•	•	. 68
		•	10			•	00	· · · ·	•		. 00

					AGE.			PAGE.				PAGE.
Cladium .				1	128	Eupatorium .		87	Hyoscyamus			95
Clematis .	Ċ				37	Euphorbia .		111	Hypericum		•	. 53
Cochlearia		•			43	Euphrasia		97	Hypochæris			81
Colchicum .	·				123	Fagus		113	Hypnum .	•	•	. 172
Collomia.					94	Fedia.	· .	80	Iberis .	-		43
Comarum .	·		•		$\tilde{62}$	Festuca	. '	138	Ilex	· .	·	. 92
Conium .		•		·	73	Filago	•	87	Impatiens			55
Convallaria	·				122	Fissidens .	. '	158	Inula			. 89
Convolvulus					94	Fœniculum .		76	Iris.			120
Cornus .					73			171	Isoetes .			. 144
Coronopus					42	Fragaria		62	Isothecium			171
Corydalis .					41	Fraxinus .		93	Jasione .			. 91
Corylus .					113	Fritillaria		121	Juncus .			127
Cotyledon .	,				71		•	42	Juniperus .			. 117
Crambe .					42	Funaria		163	Knautia .			80
Cratægus .					67	Gagea		122	Koeleria .			. 136
Crepis					82	Galactites		86	Lactuca .			82
Crocus .					120	Galanthus .		121				. 101
Cuscuta .					94	Galeopsis		102	Lapsana .			85
Cynoglossum					104	Galium		78	Lastrea .			. 141
Cynosurus					137	Genista		57	Lathrea .			99
Cyperus .					128	Gentiana .		73	Lathyrus .			. 60
Cypripedium					120	Geranium		54	Lemna .			126
Dactylis .					138	Geum		61	Lconurus .			. 101
Daltonia .					171	Glaucium		41	Lepidium			43
Daphne .					111	Glaux		106	Lepturus .			. 140
Datura .					95	Glechoma		102	Leskea .			171
Daucus .					76	Glyceria.		136	Leucodon .			. 170
Delphinium					40	Gnaphalium .		87	Ligustrum			93
Dianthus .					49	Grimmia.		156	Lilium .			. 121
Dicranum					159	Gymnadenia .		119	Limosella			98
$\operatorname{Didymodon}$					156	Gymnostomum		151	Linaria .			. 98
Digitaria					133	Habenaria .		119	Linum .			52
Digitalis .					98	Hedera	•	73	Listera .			. 118
Diphyscium	•				153	Hedwigia		170	Lithospermun	1		104
Dipsacus .					80	Helianthemum	•	48	Littorella .	•		. 106
Doronicum			•		88	Heliosciadum .		74	Lolium .			139
Draba .				•	44	Helleborus .	•	39	Lonicera .			. 78
Drosera .	•		•		48	Helmintha .		81	Lotus .	•		58
Dryas .		•		•	61	Heracleum .	•	76	Luzula			. 128
Echium .	•		•		104		•	119	Lychnis .	•	•	50
Elymus .		•		•	140	Hesperis .	•	46	Lycium .			. 95
Elyna .	•		•		130	Hieracium .	•	82	Lycopodium	•	•	146
Empetrum .		•		•	111	Hippocrepis .	•	59	Lycopsis .			. 104
Encalypta	•		•		154	Hippophäe .	•	110	Lycopus .	•	•	99
Epilobium .		•		•	67	Hippuris	•	68	Lysimachia	•		. 105
\mathbf{E} pimedium	•		•		70	Holcus	•	136	Lythrum	•	•	69
Epipactis .		٠		•	118	Honckeneja	•	51	Malaxis	•		. 121
$\mathbf{Equisetum}$	٠		•		145	Hookeria .	•	171	Malva .	•	•	53
Erica .		•		•	91	Hordeum .	•	140	Marrubium	•		. 103
Erigeron	٠		•		88	Hottonia	•	105	Matricaria	•	•	89
Eriophorum		٠		•	129	Humulus .	•	113	Meconopsis	•		. 41
Erodium .	٠		•		54	Hutchinsia	•	43	Medicago	·	•	57
Eryngium .		•'		٠	73	Hyacinthus .	•	122	Melampyrum	•		. 97
Erythræa	·		•		93	Hydrocotyle		73	Melica .	•	•	136
Erysimum .		٠		•	46	Hydrocharis	•	123	Melilotus .	•		. 57
Euonymus	•		•		90	Hymenophyllum	•	143	Mentha .	•	•	100

PAGE.	D11 1 1	PAGE.	PAGE.
Menyanthes 94		145	Schœnus 129
Mercurialis 112	Pimpinella	. 75	Scirpus 129
Mespilus 67	Pinguicula	104	Scleranthus 70
Meum 76	Pinus	. 107	Scolppendrium . 143
Milium 134	Plantago	106	Scrophularia 97
Mimulus 98	Poa	. 137	Scutellaria 103
Moenchia 50		94	Sedum 71
Molinia 136	Polycarpon .	. 70	Sempervivum 71
Monotropa	Polygala	49	Senecio
Montia	Polygonum .	. 108	Serratula 85
	Polypodium	141	Sesleria 135
	Polytrichum .	.162	Sherardia
		$102 \\ 114$	Silaus
	Populus		
Myrica 117	Potamogeton .	. 124	Silene 50
Myrrhis . · . 87	Potentilla	45	Sinapis 47
Narcissus 121		. 66	Sison 74
Nardus 140	Primula	105	Sisymbrium 46
Narthecium 128	Prunella	. 103	Sium 75
Nasturtium 46	Prunus	60	Smyrnium 74
Neckera 170	Pteris	. 143	Solanum 95
Neottia 118	Pterogonium	170	Solidago 88
Nepeta 102	Pulicaria	. 89	Sonchus 82
Nuphar 40	Pulmonaria	104	Sparganium 126
Nymphæa 40		. 89	Spartium 56
Edipodium 151	Pyrola	92	Specularia 91
Enanthe 75	Pyrus	. 67	Spergula 51
	Quercus	113	Spergularia 51
CLARKO DALOR OF T		~ ~	Sphagnum 151
O HO MA J OHNER			
Onoclea 144		38	Spiræa 61
Onopordum 86	Raphanus	. 47	Spiranthus 118
Ophioglossum 144	Reseda	. 47	Splachnum 154
Ophrys 120		. 56	Stachys 102
Orchis 119	Rhinanthus	97	Staphylea 56
Origanum 101	Rhynchospora .	. 129	Statice 106
Ornithopus 58	Ribes	70	Stellaria 52
Orobanche 99	Rosa	. 65	Stipa 135
Orobus 60	Rubus	52	Stratiotes 123
Orthotrichum . 163	Ruppia	. 125	Symphytum 104
Osmunda 147	Rumex	109	Tamus 123
Oxalis 45		. 122	Tanacetum 87
Oxyria 110	Sagina	51	Taraxacum 85
Pæonia 40	Sagittaria	. 124	Taxus 118
Papaver 41	Salicornia	108	Teesdalia 43
	Salix	. 114	Tetraphis 153
		108	
Paris	Salsola		Teucrium 101
Parnassia 72	Salvia	. 99	Thalictrum 37
Pastinaca 76	Sambucus	78	Thrincia 81
Pedicularis 97	Samolus	. 106	Thymus 100
Peplis 69	Sanguisorba	66	Tilia 53
Petasites 87	Sanicula	. 73	Tofieldia 123
Petroselinum 74	Saponaria	50	Torilis 77
Peucedanum 76	Saxifraga	. 72	Tortula 161
Phalaris 133	Scabiosa	80	Tragopogon 80
Phascum 149	Scandix	. 77	Trichomanes 143
Phleum 134	Scheuchzeria	124	Trichostomum 157
Phyteuma 91	Schistostega .	. 153	Trientalis 105
Picris 81		108	

			1	PAGE.	1		P.A	GE	8°		PAGE.
Triglochin				124	Ulmus .			113	Vinca		93
Trigonella .				57	Utricularia.		. :	105	Viola		. 48
Triodia .				136	Vaccinium			92	Viscum		77
Triticum .				139	Valeriana .			79	Wahlenbergia .		. 90
Trollius .				139	Verbascum				Weissia .		154
Tulipa .				121	Verbena .			99	Woodsia		. 140
Turritis .				45	Veronica			96	Zannichellia .		126
Tussilago .				88					Zostera .		. 126
Typha .				127	Vicia .			59	Zygodon .		163
Ulex		•			Villarsia .			94	70		

Corrigenda.

Page 10, lines 27 and 28-for "country" read "county." 13, line 18-for "71⁴/₄" read "74¹/₄." ,, 16, " 37-for "Salex" read "Salix." ,, 48, after line 9-insert "VIOLA." ,, 60, line 13-for "has been in" read "has been found in." ,, 12-for "Anglica" read "Angelica." 76, ,, ,, 20-for "Serratuta" read "Serratula." 85, •• ,, 18-for "Satrmonium" read "Stramonium." 95, ,, ,, 30---for "in a garden" read "near a garden." 102, ,, ,, 8-for "Incognit." read "Alien." 128, " ,, 1-for "Rhyncospora" read "Rhynchospora." 129,,, ,,

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viii

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