TRANSACTIONS

OF THE

Hull Scientific and Field Naturalists' Club

FOR THE YEAR 1902.

VOLUME II.

(With Title Page and Index).

Edited by THOMAS SHEPPARD, F.G.S.

This Volume II. is only issued to Members of the Club.

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The Flora

OF THE

East Riding of Yorkshire,

INCLUDING

A PHYSIOGRAPHICAL SKETCH.

BY

JAS. FRASER ROBINSON,

Vice-President of the Hull Scientific & Field Naturalists' Club

TO WHICH IS ADDED

A LIST OF THE

MOSSES OF THE RIDING.

BY

J. J. MARSHALL.

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MDCCCCII.

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TO ALL
WHO LOVE NATURE,
AND IN PARTICULAR TO THE
MEMBERS OF THE
HULL SCIENTIFIC AND FIELD NATURALISTS' CLUB
AND KINDRED SOCIETIES,
BUT FOR WHOSE KINDLY CO-OPERATION AND
FREQUENT GENIAL COMPANIONSHIP
IN THE FIELD THIS WORK
WOULD NOT HAVE BEEN
UNDERTAKEN.

" . . . 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."

WORDSWORTH.

PREFACE.

UNTIL now no Flora of the East Riding of Yorkshire (Watsonian vice-county, 61) has been published, and the first thought to render my own MS. notes into a permanent form did not originate with myself. It was mainly due to the suggestions and requests of others, except for which the ambition to add one more book to the many already in existence would scarcely have actuated me. Since, however, the need for such a work was apparent, it has been my endeavour during the last seventeen years to traverse as much of the riding as possible, personally observing and collecting plants and making notes thereon, as well as to compile from all possible sources anything pertaining to the plant inhabitants. The result is the present work which, I trust, is a fairly intelligible first account of the flora of a hitherto apparently neglected area, and one that ought not to be an unserviceable guide at least to the Field Naturalist, if not also to the Botanist at home with his herbarium.

I could have wished that the Flora had taken a form more likely to be acceptable to the popular mind, but this would have increased the bulk of the work very considerably beyond our limits. Nevertheless, full indexes are appended,

and in these and in the text will be found, whenever possible, the common and local names of plants; which, I trust, will make it appear that I by no means ignore, but rather wish to foster, the love of the wild flowers of our native land, which might be more general than it is.

My earliest botanical inspirations were drawn from association in youth with several of the local botanists whose names very frequently appear in "The New Flora of Northumberland and Durham," by Mr. J. G. Baker, and for some years previously to making acquaintance with Yorkshire botany this volume was my constant reference during many rambles in the most northerly English county. For its valuable guidance, and for the impress that it makes upon the present work, I would at once tender to Mr. J. G. Baker my sincere thanks, apologising at the same time for any inadequacy in my presentation of his idea of a county Flora; and for following his plan so far as I have done without seeking any previous formal permission.

To the memory of former botanists whose records have helped in the present compilation I would pay grateful tribute; and to all my contemporaries who, with uniform kindness and enthusiasm, have assisted in any way towards the completeness of the following account, and whose names or initials appear repeatedly therein, I beg to tender this expression of my deep gratitude.

To others, experts able to determine critical species, varieties, plant aliens, &c., I am further under great obligation. To Mr. A. Bennett, F.L.S., Rev. J. Moyle Rogers, Rev. W. F. Linton, F.L.S., Mr. S. T. Dunn, B.A., F.L.S., of Kew, Mr. Britten of the British Museum, Messrs. West of Bradford, and Mr. Wm. Whitwell, F.L.S., as well as to the members and officers of the Botanical Record Club and the Watson Botanical Exchange Club I tender sincere acknowledgment of the great assistance which, if indirect, they have nevertheless often rendered to us in our work.

I am also deeply indebted to Messrs. T. Sheppard, F.G.S., James Schofield, and Charles Waterfall, all of the Hull Scientific and Field Naturalists' Club, for a very large share they took in clerical work involved, and for other aid when the Flora was passing through the press.

The Map and Geological Section I owe to the kindness and skill of Mr. W. H. Crofts of the Hull Geological Society, and for the same he has my best thanks.

The Hull Scientific and Field Naturalists' Club, and Messrs. A. Brown & Sons, Ltd., between them having relieved myself of personal financial responsibility in the production of this work, renders me under a deep obligation, which I take the opportunity of sincerely acknowledging.

JAS. FRASER ROBINSON.

22, HARLEY STREET, HULL,
July, 1902.

INTRODUCTORY.

NO apology for endeavouring to give a first fairly full account of the plants of the East Riding of Yorkshire is needed. Plants are always interesting and beautiful, to say nothing about their economic value and the exquisite pleasure and instruction to be derived from their observation, collection, and study. So they will continue to command attention and loving appreciation as long as they are borne on the warm bosom of Mother Earth. Flora, the goddess of flowers and the springtime, has still her votaries, as amongst the old Romans, now quite beyond suspicion, we trust, and guiltless of the extravagant demonstrations that greeted her of old. That students and lovers of plants and their lore have come to speak of vegetation, taken collectively for any particular area, as "the flora," after the name of their titular deity, is not much to be wondered at; and the tertiary meaning of the word—a written compilation of the plants of a district with various items of interest thereon—has, by a very common figure of speech, come into use. For the sake of brevity, then, we shall henceforth use the word flora chiefly in the secondary sense, whilst the compilation which completes this essay will be "The Flora of the East Riding of the County of York."

Both of the other Ridings—the North and West, including the Ainsty—have had botanical exponents in Mr. J. G. Baker, and Dr. F. A. Lees (Leeds) respectively, whose Floras are amongst the very best of all local works of the kind. No Flora, however, of the East Riding has hitherto been published, and how such an extent of country—750,055 acres—larger than several English counties, should have been so long neglected in this respect, is a matter of considerable surprise. Many things else have had able treatment,

and still receive the same, but the familiar tender plant children of the old earth-cradle have cried in vain for adequate notice to be taken of them. They have received indeed scanty measure at the historian's hands. Yet good botanists appear to have lived in East Yorkshire in time past, but whether their work was extensive or systematic, one is unable to gather, and, whatever it may have been, an inexplicable diffidence or other unfortunate circumstance seems always to have restrained them from publishing anything but the most meagre list of species noted by them. Hence, so far as we are aware, no great attempt at a Flora of the East Riding *ad hoc* has hitherto been made. The want of this had been felt for many years, and the thought of the writer to compile such a work from his own practical investigation, together with that of his friends, took shape in 1885. Two or three years later a botanical section was organised in connection with the Hull Scientific Club (now Hull Scientific and Field Naturalists' Club), which included several ardent botanical workers. The area of investigation was at first confined to the district within twenty miles of the then Borough of Kingston-upon-Hull, and so eagerly was the work commenced, and so persistently has it continued up to the present time, that this area has been most exhaustively tested in all its vegetal resources, and with most encouraging results. The very many rambles along paths radiating from Hull, which the work has involved, have afforded ample opportunity for observation; and, without claiming any degree of finality in the matter of fresh discoveries, we may say with a fair degree of assurance that examples of nearly all the species of plants growing in the district named have been noted, collected, and preserved. Moreover, the extension of the twenty miles limit to the boundaries of the East Riding has been made possible by the energetic action of the above-mentioned club, in the planning and carrying out of its weekly excursion programmes, as well as it has been facilitated by the kindly co-operation of working botanists living on the borders of the riding at Selby, York, Malton, and Scarborough.

At the same time as activities in the botanical field have been carried on, a certain amount of historical and bibliographical information has gradually come to hand, and a brief sketch thereof ought not to form an inappropriate chapter by way of introduction.

The very earliest records of East Riding plants that we have been able to find are those of John Ray, who, in his "Second Itinerary" (1616) says, "We observed in a close

near the town called Granswick [now Cranswick], great store of Carum (*i.e.* Carum Carvi=Carraway); it grows in many places about this town, and in some places of the Fens in Lincolnshire." Furthermore he writes, "The south block-house [of Hull, then fortified] which commands the Humber is in good repair. . . . . On the top of the walls of this last we observed the common pink in great plenty." The sea-pink, or thrift, is still common on the shores of the estuary not far away, but the block-house has long since vanished and no true pink now grows wild in the district.

By far the most numerous of the earliest records of East Riding plants were made by Robert Teesdale, F.L.S. (died 1804), some time chief gardener at Castle Howard, near Malton, and just within the North Riding. Teesdale, after whom the cruciferal genus, "Teesdalia," is named, contributed two excellent papers to the Linnean Society in the years 1792 and 1798, which will be found amongst the transactions of this premier Botanical Society—Teesdale seems to have been a foundation member. The first paper, styled "Plantæ Eboracences," deals only with the rarer plants found within a radius of fifteen miles of Castle Howard. The second, with the same title, purports to supplement the first, and deals with the flora of the whole county. In both papers many references are made to Hull, Beverley, the Humber banks, Hornsea, Houghton Moor, &c. And Teesdale, together with a few coadjutors, seems to have practically worked these districts, for he writes:—"In a meadow called Derricoats [now Dairycoates], near Hull, is found *Carex divisa*, and I have never found it anywhere else." Altogether the two catalogues contain 910 species of the higher plants [Ferns and Flowering Plants]. Many of the rarer ones with East Riding stations, we are pleased to say for the honour of the older botanists, have been verified by recent workers a hundred years later. But the above mentioned instance at Dairycoates is, we fear, an example of what has overtaken many of the interesting species of Teesdale's lists. The drainer, agriculturalist, and builder have exterminated many of our native plants.

The year 1805 saw the publication of Messrs. Dillwyn & Turner's "Botanists' Guide through the Counties of England and Wales." Under "Yorkshire" the compilers acknowledge their indebtedness to the work of Mr. Robert Teesdale above mentioned; and the greater number of East Riding records are subscribed by his name. There are, however, several others that are authorities for certain plants, some of whom

had undoubtedly a practical acquaintance with the flora, and add a number of species not determined as East Riding plants by Teesdale. Amongst these may be mentioned Colonel Machell, Mr. Knowlton, Mrs. Wharton, Mr. P. W. Watson, F.L.S., Mr. Archibald Pierson, all of whom, in some small degree, augment the number of items of the Botanical Guide. Our information concerning any of these is only meagre, but foremost amongst them, as a botanist to whom we are able to give fuller notice, was P. W. Watson, a gentleman whose work brings us several steps forward in our botanical history.

Peter William Watson, F.L.S., was a native of Hull (baptized at Holy Trinity Church, 26th August, 1761), and resident for some years at Cottingham, an honorary member of the Hull Literary and Philosophical Society, and a founder of the first Hull Botanic Garden, 1812. In the introduction to his "Dendrologia Britannica" (pub. 1825), a beautifully illustrated book in two vols., dealing with exotic shrubs and trees growing in English parks and woods, he shows that he was also well acquainted with our native plants. Speaking of the flourishing Botanic Garden just mentioned, Watson writes:—"I hope I shall not be considered vain in adding my own endeavours to furnish the institution with many indigenous plants which I collected at considerable expense and labour by traversing the whole of the East Riding of Yorkshire in my gig, with proper apparatus for cutting up roots, collecting seeds, &c., of the rarer sorts, whose habitats had been rendered familar to me from numerous previous herborisations." We know of nothing that remains of P. W. Watson's collections or observations except the records in the Old Botanists' Guide already referred to; but for these few records we are grateful, and trust they will to some extent avert from the devoted head of this pioneer exterminator the anathemas of subsequent lovers of our native plants. Watson seems also to have included in his "herborisations" the careful measurements of the trunks of old trees, and has left the dimensions in his day of trees at Bishop Burton and other places in East Yorkshire.

"Camden's Britannia" (ed. 1806) has a good list of the rarer plants found in Yorkshire, but only seven or eight of them are localised for the East Riding species. They are the following:—Ranunculus Lingua, Carum Carvi, Cotyledon lutea "in the east part of Yorkshire," Lysimachia thyrsiflora, Ophrys apifera, Stratiotes Aloides and Triticum

junceum. The botanist to whom Camden or his subsequent editors were indebted for the above was John Ray, and it is interesting to note that all the plants just mentioned, except the Cotyledon and Lysimachia, are still found in our riding.

In Oliver's "History of Beverley" (1829) there is a list of the less common plants to be found in the district, but the name of the botanist responsible for this is not given, and certainly no one with much claim to knowledge of plant names would have passed the badly-spelled list.

Scaum's "Beverlac"—a history of Beverley—was published in 1839, and contains interesting lists of flowering plants, ferns, mosses, &c., carefully prepared and compiled by Colonel Machell and Dr. Hull, from Mr. Robt. Teesdale's (*vide supra*) and their own observations. The lists do not profess to be exhaustive, giving only 125 names of the higher plants. It is to be regretted that the compilers of Scaum's lists leave so little indication of their own original observations, which, we think, may have been extensive in the East Riding. Only a few specimens now in York Museum, it has been ascertained, have been left as vouchers for the above.

Next in order of time comes Baines' "Flora of Yorkshire," published in 1840. From its preface we learn that there were several botanical workers in Hull and other places of East Yorkshire. Mr. David Smith was Curator of the Hull Botanic Gardens, which were then nearly thirty years old, and had been amongst the best in the kingdom. Mr. Smith made careful observation of the plants that grew around Hull and had furnished a list of them to Mr. Baines, then sub-curator of the Yorkshire Philosophical Society's collections. So we take it that many of the stations of plants mentioned in Baines' "Flora of Yorkshire," in terms such as "near Hull," "between Beverley and Hull," &c., would be due to Mr. Smith, but he does not specify more definitely, as he might have done with advantage, in these and many other instances throughout his work. Nevertheless, for the East Riding of Yorkshire, Baines gives a fairly large number of records, amounting in all to 264.

In 1854 another edition of Baines' was published, with a supplement by J. G. Baker, the able author of "A New Flora of Northumberland and Durham," "North Yorkshire Botany," &c., but his additions for the East Riding are chiefly gathered from the older authorities overlooked by Baines, not numerous, however, being in fact only 36. This,

together with the former total, makes the number of recorded species just 300.

Five years after the publication of Baines' first edition, namely, in 1845, we find an enthusiastic and able worker in the field of botany, namely Mr. George Norman, better known, perhaps, as an ardent entomologist and student of diatoms. Mr. Norman was born in 1823, and for some time was a merchant with his brother, Mr. T. A. Norman, of Wilberforce House, High Street, Hull. The pursuit of natural history in various courses, however, seems to have claimed him more than the merchant's office, and in the year 1845 and onwards we find from his MSS. that he was noting the plants of the Hull district and preparing lists of them, probably with a view to the compilation of a Flora. This, however, was not carried out; but, through the kindness of Mr. T. Sheppard, F.G.S., Curator of the Hull Municipal Museum, now the fortunate possessor of many of Norman's books, we have carefully perused the MS. notes and find that they make several additions to the former East Riding records. The dates given by Norman in his working copies of "The Botanist's Manual" (Sheffield), and Baines' "Flora of Yorkshire" (first edition, 1840), are all in the forties—beginning 1845 or 1846—and it was probably about this time and onwards for twenty years that he made most of his observations on the Ferns and Phanerogams. Afterwards it was, with still greater zeal that Mr. Norman took up certain branches of Entomology, became the discoverer of several new species of moth, and, in Diatomaceæ, quite an expert. Several diatoms were first found by himself and named specifically after himself or his friends of the microscope. Since the subject is a botanical one, examples of these may be mentioned here:—Coscinodiscus subtilis, var. Normanii; Pleurosigma Normanii; Odontidium (Fragilaria) Harrisonii; and Aulocodiscus Sollittianus.*

Contemporaneous with Mr. George Norman, and probably a fellow worker with him, was Mr. James Freeland Young, of the Hull Mechanics Institute, evidently a good and careful botanist, who has left us in many respects the most direct and tangible information towards the compilation of an East Riding Flora. Mr. Young, like Mr. Norman, had been a field botanist and, more than the latter, a collector and preserver of plant specimens. Three or four

* For more of G. Norman, see "Bye-gone Hull Naturalists," I., by T. Sheppard, in the "Transactions of the Hull Scientific and Field Naturalists' Club," Vol. I., Part III., 1900.

collections of these are still extant, and are valuable as affording examples mostly of the common species of the "Neighbourhood of Kingston-upon-Hull" (1854). Young's list, we are told, numbered 400 flowering plants and ferns; his collections and volumes of well-preserved natural specimens did not each contain more than 150 species, mostly of plants previously noted, but they are of great importance to us as being almost the only examples of herbaria earlier than 1880 that are now accessible to us.

Overton's "History of Cottingham" (1861) makes mention of Mr. Young's botanical investigations of the parish of Cottingham, and in conjunction with James Craig Niven, Curator of the Hull Botanic Gardens (1853), Young had prepared, or was going to prepare, a flora of Cottingham, but circumstances were against its publication, and so it is not included in Overton's "History." The late Mr. Niven, an able curator, a good botanist and lecturer on botanical subjects, knew very much about our less conspicuous wild plants, *e.g.* the sedges, grasses, &c.; but it does not appear, from information that has been afforded by Edw. A. Peak, the late courteous superintendent of the Hull Municipal Parks, that Niven, who died in 1881, left any MSS. or other data to help us in our compilation.

Next in historical sequence come the proceedings of the Yorkshire Naturalists' Union, as detailed in "The Naturalist," the first number of which was published in 1833. Although meagre on the whole, the lists of plants recorded by eminent botanists on flying visits to the East Riding are very valuable, and we gratefully admit the same to have materially augmented the number of species already recorded. Amongst the names of contemporary writers who, chiefly under the auspices of the above-mentioned union, have helped us by their observations are those of such distinguished botanists as Dr. F. A. Lees, of Leeds, Dr. Parsons, formerly of Goole, William Whitwell, Esq., F.L.S., now of London—all the best of guarantees, we believe, that however much or little they may have observed and recorded in our vice-county, it has been a genuine and reliable addition to our knowledge. Of our contemporaries still on the spot and working in the field, one must only speak briefly, not being able in this work to say all one would like concerning those with whom once to botanise is to begin the pleasantest of friendships—evidence too that there is much more of genial human interest in our nature-study than may appear from the words in which

our subject is primarily introduced. Suffice it to say that the authorities or their initials for the species and localities will be given in "The Flora" proper.

For ourselves and some of the contemporaries just referred to, we may mention that certain fragments of published work not included in "The Naturalist" or other book have played a part in leading up to this fuller and more comprehensive effort. In "A Guide to Hornsea," published by Mr. A. T. K. Fretwell,* of Hull, in 1894, there is a fairly good list of Holderness plants by the writer of this work. The same may be said of the "Guide to Flamborough," by Rev. R. Fisher, M.A., Vicar of Sewerby, and published by Messrs. Wm. Andrews & Co., Hull (1894).

Valuable East Riding records have been made permanent, too, by the Malton Natural History Society in their published proceedings (1886-7), and these, together with botanical lists compiled by Mr. Henry John Wilkinson for the annual publications of the Yorkshire Literary and Philosophical Society recently issued, have been of the utmost service to us in our present work. For most of the records of the Rubi (Brambles) we are almost entirely beholden to the last named gentleman's kindly aid.

Furthermore, in the MS. notes and reports of the Hull Scientific Societies, as well as in some of their printed work, references to many plant discoveries by contemporary workers are given; whilst so lately as the beginning of 1901, in Deacon's "Court Guide of the East Riding of Yorkshire" will be found a popular account of our flora and a considerably larger number of plants than had previously been printed. The compiler of the present work was responsible for the same.

On the whole the foregoing, as far as we can gather, is a fairly complete account of the bibliographical part of our subject; and it may naturally be thought to show a degree of paucity and indirectness of bearing for which, however, we can scarcely account, but simply express our regret.

Nor are those vouchers, which, we think, always should be the basis of a flora of any locality, more numerous and forthcoming than the MSS. or printed records. In fact, with the exception of Mr. J. Freeland Young's specimen herbaria and prize collections made in the fifties and above referred to, we have no collection expressly of East Riding plants. From dried specimens in the Museum of the Yorkshire Philosophical Society having East Riding localities attached

* The brothers Fretwell of this city are amongst our fellow-workers in the field.

to them, and from one or two isolated private collections like those of Mr. Wm. Whitwell, F.L.S., of London (formerly of York), we have the only real vouchers that we can obtain for our records, but these, though comparatively few in number, are good and reliable. Not till 1885, so far as we are aware, were any adequate collections begun. Since then, however, several herbaria have been got together by members of the Hull Scientific and Field Naturalists' Club, and these, we modestly claim, are the best foundation upon which the sequel is built, and means will be taken therein to indicate the existence of the necessary vouchers. (*See* Plan of Flora, *infra*).

The herbaria just referred to are still in private hands, their various collectors being Mr. Charles Waterfall, of 10, De Grey Street, Hull, a botanist of many years standing. His collection is in reality for the whole of Britain, and few of the species found in Britain are wanting in it, so assiduously has its keeper worked at botanical classification. Mr. Waterfall has collected for ten years in the East Riding. Another collector and most admirable preserver of plants is Mr. J. W. Boult, stonemason, of Hull, better known, however, as an ardent entomologist. His herbarium gives a total of above five hundred plants, with few exceptions, all of East Riding growth.

The writer's own collection, made in, and specially for, the East Riding, was commenced in the year 1885, and contains, gathered by his own hands during those frequent intervals from teaching that fall to the schoolmaster's lot, vouchers for the great majority of the species that are spoken of as general in "The Flora," or have the asterisk (*) after them.

Both of the bibliography and the collection of dried plants it may be remarked that the amount is, after all, very trifling; and this cannot be denied. But at the present stage we have said as much as we possibly can. Should some of the foregoing appear lacking in relevancy, it may be stated that we preferred doing justice to all who, we could conceive, had helped in any degree to forward botanical knowledge, rather than deny to several any share whatever in the work.

PHYSIOGRAPHY OF THE EAST RIDING.

THE connection between plants and the soil upon which they grow is so close that a sketch of the geological and geographical features of the East Riding is necessary. Although the least of the three divisions into which the "broad acred shire" has been artificially cut up for the last thousand years, the Riding is, nevertheless, of considerable extent, and much larger than several of the English counties. In the north-east of England it is that tract of land situated between the parallels of latitude (53° 34′ and 54° 12′ N.), and between the meridians of longitude (0° 10′ E., and 1° 8′ W.). Roughly oblong in shape, save for the south-eastern prolongation known as Spurn—a spit of sand and gravel partially damming the Humber and extending for nearly four miles to its termination at Spurn Head—the Riding is 45 miles from west to east, 35 from north to south, and has an area of 750,055 acres (approximately 1172 square miles). Washed throughout the whole length of its eastern side by the waters of the North Sea, it has a coast-line from Filey to Spurn Head of about 50 miles, including the fine bays of Filey and Bridlington. The River Derwent, the main left bank tributary of the Yorkshire Ouse, during much of its upper course, separates the East from the North Riding. The Ouse, from the vicinity of the city of York to the town of Selby, divides from the Ainsty and the West Riding, whilst the southern boundary separating the East Riding from Lincolnshire is the magnificent estuary of the Humber. The general surface is not marked by such great diversity as that which obtains in either of the other Ridings. There is not a mountain or many high hills; in fact, comparatively little inequality or unevenness of any kind. Nevertheless, the East

Riding may be mapped out into three well marked geographical areas, which, it may be stated, are entirely dependent upon distinct geological formations.

I. The Plain of Holderness.—The Plain of Holderness is about 160,000 acres in extent. Holderness, geographically, is rather larger than the old seigniory so called, and for the purposes of this work is held to include all the land south and east of the Wolds. Although denominated a plain, being usually low lying and nowhere above 160 feet above sea level, it is by no means of one dead level as is frequently imagined, but in many places is thrown into gentle indulations, as at Paull (Paghill), Keyingham, Sutton, Rise, Brandesburton, and Skipsea. The numerous place names in Holdernessian topography indicating this feature are evidence to the stranger who may never traverse the region. Thus there are many "holmes," "hills," "barffs" (probably an alternative of "broughs"), and "rises," which will be recognised in the appended topographical lists. In the landscape many a hamlet or farmstead marks the site bearing one or other of these names. Geologically, Holderness is a remarkably interesting example of a Boulder Clay district, its undulations being due to the irregular accumulations of moraine debris left by the great ice cap and glaciers of the Pleistocene Epoch. The hummocky appearance of the district, the contents of the gravels and clay with their far-travelled Cumbrian, West Riding, and Norwegian boulders, sub-arctic fossil shells, and peculiarly scratched and smoothed stones, all point to ice as the agent of construction which helped most of all to form the land now constituting Holderness. In the hollows between the "rises" and hills above mentioned, there have formerly existed many small lakes (meres or "mars"), the natural resultants of the region being covered with ice. These have nearly all vanished owing to natural filling up and artificial drainage, but their former presence is proved by their present marshy conditions or peaty subsoil, as well as by the many place names incorporating the words "mar" and "mere," *e.g.*, Marton, Marfleet, and Sand-le-mere.

Besides these evidences the old beds of lakes are often well exposed in cliff sections on the coast, where their existence has been revealed by the erosive action of the sea. At Barmston Drain mouth, Skipsea and Atwick Gaps, Out Newton, and Holmpton, there are well-known instances of

such lacustrine remains, which appear lying in depressions or alluvial hollows of the boulder clay. The beds are of varying thickness, and in descending order consist of—

1. Surface soil.
2. Peat, with remains of trees.
3. Shell marl (fresh water).
4. Boulder clay.

As bearing upon the origin and history of certain members of the flora, it may be stated that these lake deposits are the only strata in the East Riding of interest to the palæo-botanical student, containing as they do the nearest approach to fossil vegetation. In Mr. Clement Reid's "Geological Memoir of Holderness" (1880), and also in his more recently published "Origin of the British Flora" (1899), lists of plant remains from these old lake-beds are given, and include such species as the Arctic birch (*Betula nana*), bird cherry (*Prunus padus*), oak, hazel, &c. The first of these is, of course, extinct as a living plant in Holderness, and the bird cherry, if indeed indigenous, is now very rare. To these may be added another tree, very common in the peat of the cliff sections, as well as in such localities as may be dug into for brick-making purposes. The tree referred to, the Scotch fir (*Pinus sylvestris*), still grows in many places both east and west of the Wolds, and from its remains in the peat it is more than probably quite indigenous.

Of the lakes themselves that were once so conspicuous a feature in ancient and pre-historic Yorkshire, only one now remains in Hornsea Mere, still the largest sheet of fresh water in Yorkshire, being one and a half miles long by half a mile broad. All the others, together with their accompanying marshes, have been largely drained by the intricate network of dykes and open drains that intersect the basin of the River Hull; and Holderness is no longer "the merschlie londe" of Chaucer's time. Still there are many patches of marsh and bog, and land in the next stage to these, namely, the frequent low-lying and damp "carrs" and "ings." Instances of these occur by the River Hull and its tributary streams, canals, and drains near Driffield, Wansford, Arram, and Leven, and, less closely related to the river, at such places as Marton, Keyingham, and Cottingham. Watery places, more or less artificial, however, are plentiful enough in this division owing to the above-mentioned system of drainage, and in their waters and precincts still linger many of the hydrophytes (aquatic plants), lineal descendants

of the primeval flora; for although the channels are chiefly of artificial construction, the aquatic medium is much less likely to bear upon it the impression of man than is the case with land under the hand of the drainer, farmer, and builder.

From the nature of the rock structure of Holderness, and from the agriculturalist's point of view, the soil is chiefly strong and clayey when directly over the boulder clay, the only exceptions being in the alluvial levels and the gravelly, morainic mounds already referred to. It is not, however, on the whole, the stiff cold land that frequently occurs on the boulder clay in more northerly counties, but is well adapted for wheat growing, pasture, and meadow land, and as such is very well cultivated. Patches of dry, light soil, growing oats, barley, and mustard, coincide with the morainic accumulations above referred to.

Where the land lies near the Humber and its affluents there is much natural as well as artificial "warp" or alluvium, which forms rich, fertile soil suitable for root and tuber crops, as well as those of mustard and the legumes (pea, &c.). The many hundreds of acres of reclaimed land known as Sunk Island afford a conspicuous instance. It is interesting to note that in the first stages of natural "warping" or retention of silt, plants of a lowly kind play a very important part in the process. It has been noticed on the foreshore of the Humber at low water that big dark-coloured patches or mounds occur in the mud. On examination of these they are found to consist of an intricate network of the filaments of an alga (*Vaucheria dichotoma,* var. *submarina,* fide W. West) which, growing with great rapidity, retains particles of mud, seeds, &c., in its meshes, and thus greatly assists in binding together the silt left by the oscillating tide.

It may be not uninteresting here to give a fuller account of the process of natural warping, or making of new land, just referred to. The process has been carefully studied at Broomfleet, Brough, Hedon, and Paull; and a notion of it may be gathered from the following:—

1. The channel of the Humber in many places, particularly near the banks, is filled with sand and mud banks, whose presence is indicated not infrequently by a light-ship. These are often the beginnings of new land.

2. At low water a stretch of muddy foreshore is left. It is on this that the alga (Vaucheria) above mentioned luxuriates, holding the sand and mud together and intercepting the fruits and seeds of various plants. Owing to

the alga the mass of mud, when dried, as it generally is in summer, is rendered into a felt-like carpet over which it is most pleasant to walk, even when it may be cracked by the heat rays of the sun into a multitude of characteristic polygonal spaces. From the seeds intercepted in this part arise patches of three distinct species of plant, namely, *Scirpus maritimus* (sea-side sedge), *Glyceria distans* (sea flote-grass), and *Aster Tripolium* (Michaelmas Daisy). The roots and underground stems of these certainly catch and detain much sand and mud, and hence the hummocks that appear dotted all over the mud.

3. On the edge of the last stretch, near the land, other plants are added, and particularly *Glyceria maritima* and *Juncus Gerardi* (Gerard's rush). This seems to be a favourite summer resort for cattle.

4. Still coming inland, we next stand upon a level strip—salt meadow, it may be not inaptly called. Various grasses and other plants, many with a decidedly fleshy character grow here, *e.g.*, *Glyceria maritima*, *Festuca rubra*, *Lepturus filiformis*, together with much Thrift (*Armeria*), Glaux, Arrow grass (*Triglochin*), Sea Plantain (*Plantago maritima*), &c. This stretch, we have noted, is more preferred by the horse.

5. On the land side of the embankment is reclaimed and usually well tilled land.

The drainage of Holderness is almost exclusively the work of the River Hull and its tributaries. This river originates on the edge of the Wolds west of Driffield, near to which the renowned trout streams unite. These include Emswell, Driffield, Southburn Becks, and the Gypsey Race, and further south, on the west bank, the smaller becks of Skerne, Watton, Arram, Beverley, and Cottingham, also from the Wolds. On the east bank the Hull receives the Old Howe (or Hull?), with its feeder Kelk Beck, Stream Dike, and Lambwath Stream. All of these run through some of the best botanical, as well as the most decidedly picturesque ground in the division, and both botanists and artists would do well to keep this in mind. There are two or three less significant streams that, coming from Holderness, reach the Humber directly. Such are Hessle and Humbleton becks; and both these and the River Hull are tidal, the latter from the city to which it gives the common name up to Top Lock, a distance of about twenty miles. This accounts for a number of estuarine species found on their banks that we are more familiar with on the Humber shore.

II. The Wolds.—Adjacent to Holderness on the north and west is the second natural division, namely, the Wolds, a range of hills of no great altitude, stretching in a curve from Flamborough Head, the most northerly large exposure of the chalk in England, towards the Humber at Hessle, and in area occupying 400,000 acres. Their culminating point, Wilton Beacon (785 feet), is situated about the middle of the curve near its western edge. The Wolds are flanked, and in a few places overlapped by the glacial accumulations described above, and for the most part belong to a much older geological system, the *Cretaceous*. There is no conclusive evidence as yet that there are any *Tertiary* strata coming between those of the Pleistocene and the Cretaceous in Yorkshire. Round the western and northern base of the Wolds there are lower parallel ridges, due to the outcrop of rocks belonging to the systems next below the Cretaceous, and by some may be included in the term wolds; but from their characters being very distinct from the chalk, and more like that of the division next to be described, we prefer suggesting that the Wolds be considered as synonymous with the chalk. This is a limestone rock so well known generally that no particular description is much needed. Its main composition is of carbonate of lime in a more or less friable condition, intermixed with a large quantity of flints (siliceous) and some of the iron compounds. In south-east Yorkshire the Cretaceous is certainly the most characteristic rock system, and no better display of its various formations and horizons, from the base to the top, can be had in England. In descending order the Upper, Middle, and Lower chalk, including the Red chalk, all have numerous exposures; and below the last are the Neocomian series, better known as the Speeton clay, so well seen just north of the Flamborough headland, on the coast of the Filey Bay.

In thickness the Yorkshire chalk is probably little short of a thousand feet (G. W. Lamplugh, F.G.S., of H.M. Geological Survey, estimates it at 1500 feet), but owing to the gentle dip eastward and to faulting, the actual elevation is not so great, reaching, as has already been shown, scarcely 800 feet. On this account no part of the East Riding rises higher than the Infer-agrarian, vegetal zone of the late H. C. Watson's "Cybele Britannica," and therefore, the question of plant distribution due to altitude will not need to be taken into account in the present work. At the same time, perhaps the most striking physical feature of the Wolds

is their abrupt termination facing the North Sea, and well-known to all who navigate the latter as Flamborough Head. The magnificent chalk promontory, quite peninsular in outline, has a coast of six miles round, and includes precipitous cliffs, great cavernous "holes," outlying stacks, and a number of indenting "wicks," or bays. The well-known lighthouse stands near the easternmost extremity of the headland, a little over two hundred feet above sea level, but Bempton Cliffs, as the northern face of the promontory is named, are upwards of 400 feet in sheer perpendicular height. Consisting entirely of chalk, except for certain superficial glacial deposits, and being much exposed to the winds, Flamborough Head does not constitute a very rich hunting ground for flowering plants; but it is not without interest even in this respect, having a few not found elsewhere round the East Riding coast, whilst the marine botanist will find his time spent in ransacking the rock-pools at the "landings" and in the "wicks" well rewarded with the discovery of many algæ.

The surface weathering of the chalk has resulted in a series of rather monotonous undulating uplands (locally called "wold" or "field," *e.g.* Driffield "Wold," Kilham "Field") cut into by numerous dales, steep-sided and V-shaped in vertical section, notable examples being Welton, Drewton, Bessingdale, and Thixendale. Many of these are dry and without the appearance of any running water in them, and are not infrequently partially filled in with chalk and flint gravel. It is on these gravels and also on the slopes of the dales that the botanist will do his best work amongst the xerophiles (dry-loving plants).

The soil covering the Wolds and the slopes of their dales, except where derived from the boulder clay sometimes superincumbent on them, is of extreme thinness, being rarely more than a few inches in depth, and does not admit of, or require very deep ploughing. The sub-soil is not usually solid chalk but somewhat broken up and fragmentary to a considerable depth, and this condition, together with the very rubbly or flinty character of the soil, gives a degree of porosity to the Wolds that none of the other divisions possesses. The driest region it is almost possible to conceive, yet these low hills are well-adapted to the growth of beech trees, barley, and oats. The pastures of the higher Wolds do not strike one as very luxuriant after traversing Holderness. Henry Best, of Emswell, says, "Most of the grass that groweth on the landes, and especially on the leyes of the Wolds is a small

sparrie and dry grass, and sheep doe not like it till such time as it bee well nipped with frostes" (Farming Account Book, written 1641, *see* Surtees Soc. Pub., vol. 33), and in another place he speaks of "Wolde barley that chanceth to bee very thin," as if it were not unusual for it to be so. And the general character of the upland ground is still the same, for the late Edmund Riley, who long farmed 530 acres of the Wolds at Kiplingcotes, stated in evidence given before the Royal Commission on Agriculture in 1894, that there was very little land laid down to grass on the Wolds, and that if it be laid down after two or three years "it will scarcely keep a sheep an acre, after the third year it is worthless." And some idea of the value of chalk-land from the farmers' point of view may be gathered from Mr. Riley's estimated average rent per acre, about 17s. Still, little of the surface of the Wolds is not under cultivation, but it is only by high farming and the comparatively great facilities for importation of food stuffs that farming is at all remunerative. The one physical property which is responsible for the lack of luxuriant vegetation, either wild or cultivated, is that already referred to, namely, the great porosity of the chalk.

Further, the fact last mentioned explains why there is almost a complete absence on the Wolds of any surface drainage. There are no streams even in the dales, ponds are absent except where artificially lined with clay, and no district suffers more from seasons of drought. The water which falls as rain sinks immediately, and after it has been filtered in its downward passage, reappears only around the base of the Wolds in springs, which give rise to streams irrigating Holderness and the tract west of the Wolds.

The extremely porous nature of the chalk formation on the one hand, and the clayey character of the lower and subjacent strata on the other, tell upon plant life in quite opposite ways. The complete absence of anything like bogs or marshes on the Wolds, and the extreme porosity of chalk make this an excellent area for the study of xerophilous (dry loving) vegetation; whilst the numerous springs which occur all round their base afford damp alluvial patches ("bottoms") that yield many of the most interesting hygrophilous or subhygrophilous plants.

III. The Plain of York (part of).—The third physiographical division of the East Riding includes the whole area (200,000 acres) to the north and west of the Wolds, and is designated in part Pickering Carrs and the Plain of

York, or that part of the latter, which for convenience we shall name "Derwentland," from the important tributary of the Ouse which intersects it. Geologically this area is underlaid by rocks of Cretaceous (lower Cretaceous or Neocomian, Speeton clay being the local name), Jurassic, and Triassic age; but there is no very considerable outcrop of these rocks, owing to their superficial envelope of boulder clay (over the Neocomian), and of a great extent and depth of gravelly and sandy alluvium over the other formations. There are gravelly accumulations, morainic in character, in the vicinity of Escrick, a few miles south of the city of York; but far the greater part of Derwentland is evidently an aqueous deposit of silt, and is peculiarly sandy in character. The average depth of this deposit, as derived from the figures of borings given in the Geological Society's Memoir (by Messrs. Dakyns and Fox-Strangways), is somewhere about fifty feet, being usually greatest near to the rivers. At Barmby-on-the-Marsh, south of Selby, it is 92 feet; near Staddlethorpe, 59 feet; and at Duffield and Pocklington, 58 and 42⅛ feet respectively. Big sandy commons are the characteristic features of this division, and good examples are those of Pocklington, Barmby Moor, Allerthorpe, Riccall, Skipwith, Bubwith, Houghton Moor, and Market Weighton Great Sandfield, all of which are noted resorts of botanists and other naturalists. In agricultural parlance Derwentland is spoken of as "The Levels," a name which is exceedingly appropriate, inasmuch as it very accurately describes the division which is certainly the most evenly low land in East Yorkshire. Agriculturally it is also the most fertile, and hence highly cultivated over most of its area. Gradually the commons and moors are being brought under cultivation; and there only remains in isolated tracts anything like a wide field for native plants. On the commons above named are the only true peat-bogs in the Riding, and these occur in patches where the sand is waterlogged. These latter facts will not be without their significance to the student most interested in our original and native flora.

The drainage of Derwentland, as our name suggests, is accomplished chiefly by the River Derwent, the largest east bank tributary of the Ouse, together with the Hertford, a feeder of the same; but there are several smaller streams besides. One, Speeton Beck, empties into Filey Bay. Others, like the River Foulness (pronounced Foonay), now in part coincident with the Market Weighton Canal, and the North and South Cave Beck, debouch into the Humber

directly. As in Holderness above described, there is also much artificial drainage of Derwentland by "dykes" and "canals," and larger ponds of surface water such as that which was found on Walling Fen a hundred years ago (Camden's "Britannia") do not now exist. Near the Humber, however, there are extensive marshy tracts that are also being reclaimed, both by natural and artificial means.

As bearing directly on the vegetal capabilities of the East Riding taken as a whole, as well as being indirectly a guide to what area the botanist may expect to find still dominated by native plants, the following figures, taken from the Journal of the Board of Agriculture (1900), may be of some use. During the past year the three cereals, together with clover and permanent pasture, occupied the following areas :—

	Acres.
Wheat	64,254
Barley	73,623
Oats	95,231
Clover and Rotation Grasses	92,232
Permanent Pasture	211,220
	536,560

Taking the total area of the riding as 750,055 acres, and deducting the above large acreage of cultivated and pasture ground, it leaves for towns, villages, gardens, roads, commons and wastes, and water-ways, 213,495 acres. Of commons and other ground, usually marshy and in the vicinity of streams, the area probably does not consist of more than 5000 acres, and this area is continually diminishing to such an extent, indeed, that, in the not very distant future, the only plant study available will be economic, or one of plant immigration, including the cereals, valuable to man, and the aliens, colonists, and others, that are introduced therewith. To prevent the disappointment that has frequently been experienced in our rambles throughout the East Riding, it may be well to give a word of caution against accepting such statements as are still perpetuated in recent guide books, to the effect that "hundreds of acres in the parish are heath or waste land;" for example, of Weal, near Beverley, where there is now scarcely a yard not under severe cultivation. The summaries appended will be found fairly exhaustive and corrective of previous mistakes on this head.

In brief, the geological facts hinted at in the preceding may be summarised as under; and if the table be used with

the map and diagrammatic section, the foundation of our geography may be taken in at a glance :—

TABLE OF GEOLOGICAL FORMATIONS EXPOSED IN THE EAST RIDING OF YORKSHIRE.

WHERE EXPOSED.				
Spurn	Sand Dunes	Recent and Post-glacial.	Post Tertiary	Quaternary.
Near Selby	Warp			
Wold valleys	Chalk gravels			
Commons in Derwentld.	Peat			
,, ,,	Sands			
Holderness, and coast of Filey Bay	Boulder clays & gravels	Glacial		
Flambro'	Upper chalk	Upper Cretaceous	Cretaceous	Secondary Epoch.
Wolds, Hessle, &c. ...	Middle chalk			
,, ,, ...	Lower chalk			
Speeton	Neocomian (Speeton clay)	Lower Cretaceous		
Bottoms of Wold dales S. Cave, & Burdale	Kimeridge clay	Upper Oolite	Jurassic	
Leavening	Upper Calcareous Grit	Middle Oolite		
	Coral Rag			
	Coralline Oolite			
	Lower Calcareous Grit			
Base of Wold Escarpments	Oxford clay			
Do., and South Cave ...	Kelloways rock			
Do., do., &c.	Millepore limestone	Lower Oolite		
	Estuarine sandstones			
	Dogger			
North Cave	Upper Lias	Lias		
	Middle Lias			
	Lower Lias			
Market Weighton ...	Rhœtic Beds (?)		Triassic	
Holme-on-Spalding Moor	Keuper (Upper New Red sandstone)			

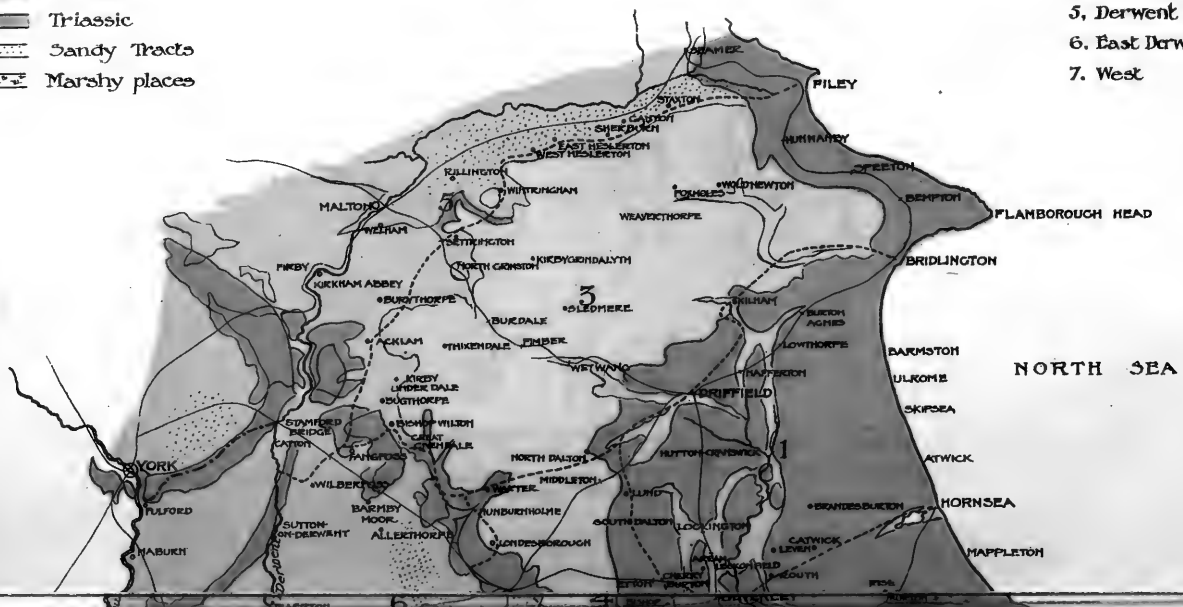
GEOLOGY & FLORA
OF THE
EAST RIDING OF YORKSHIRE.

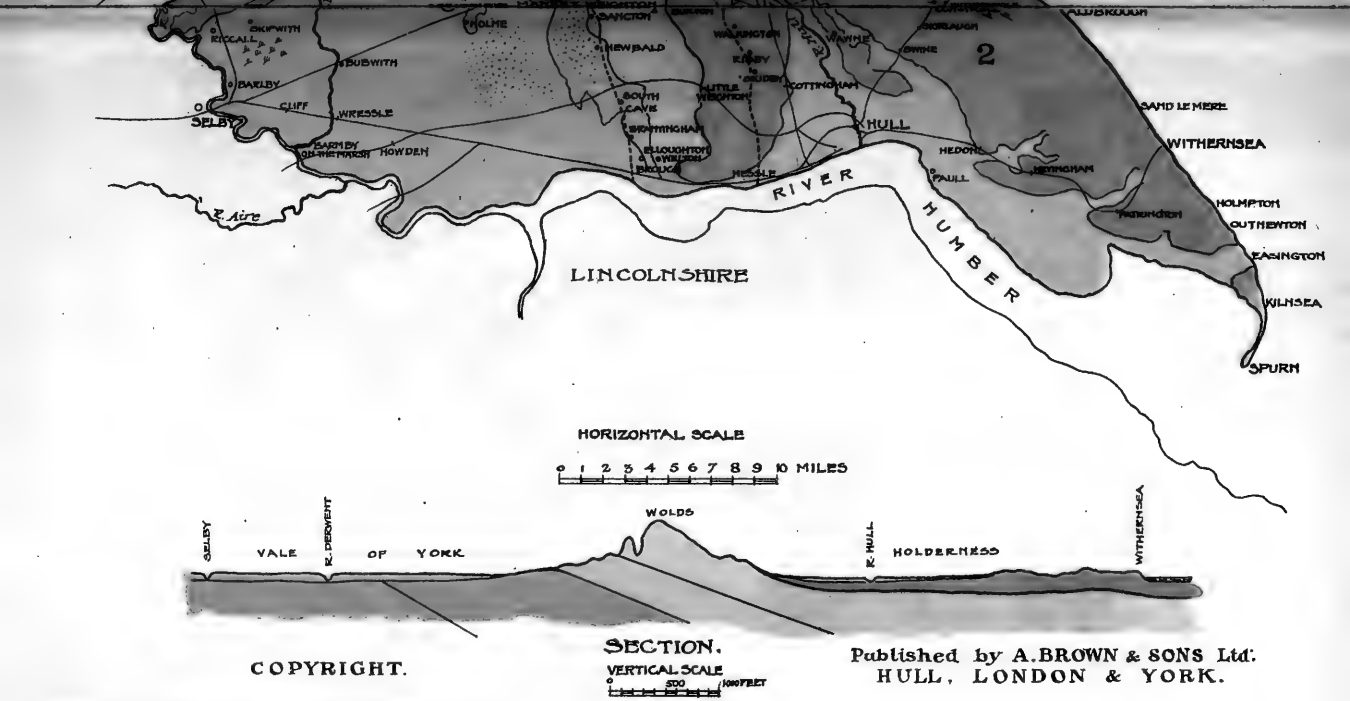
INDEX OF COLOURS
SHEWING GEOLOGY

- Alluvium
- Glacial
- Cretaceous(Chalk)
- Jurassic
- Triassic
- Sandy Tracts
- Marshy places

BOTANICAL DIVISIONS

1. North Holderness
2. South dº
3. North Wolds
4. South dº
5. Derwent Carrs
6. East Derwentland
7. West dº





Published by A. BROWN & SONS Ltd.
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* Additional copies of this Map may be had, folded for the pocket, price 4d. net, or mounted on linen, price 8d. net.

TOPOGRAPHICAL SUMMARY.

THE following is a list of places of botanical interest. The names in larger type are the centres, always on railways, whence the places immediately following may be visited. The nature of the ground is given after the various groups.

Filey Bay and Holderness (Coast of).—FILEY, SPEETON, BEMPTON, Flamborough—Clay and chalk cliffs. BRIDLINGTON, Barmston—Gravels, sands, lacustrine deposits. HORNSEA-mere, Ulrome, Skipsea, Atwick—Boulder clay cliffs and lacustrine deposits. Aldborough and Garton (see preceding). WITHERNSEA, Sand-le-mere, Holmpton, Out Newton, Easington, Kilnsea, Spurn—Boulder clay cliffs, lacustrine deposits, and sands.

Holderness (Central Part). — HUTTON-CRANSWICK, North Frodingham, BEVERLEY, Brandesburton, Catwick—Glacial gravels, "barffs." Leven, Routh, Meaux, Woodmansey, Wawne—Carrs (grass, intersected by drains and dykes). SWINE, SKIRLAUGH, BURTON CONSTABLE, Rise, Withernwick—Boulder clays and gravels, with interspersed alluvial hollows. HEDON, Paull and Paull Holme, KEYINGHAM, PATRINGTON—Glacial gravels, marshes, estuarine alluvium, and drains.

Holderness (Western Side, but not on the edge of the Chalk).—BURTON AGNES, LOWTHORPE, Kilham, NAFFERTON, GREAT DRIFFIELD, LOCKINGTON, ARRAM, Lund, CHERRY BURTON, South Dalton Moor, Etton, Leckonfield, BEVERLEY, Bishop Burton, Walkington, COTTINGHAM—Boulder clay, chalk, gravels, much alluvium, river, drains, and marshes.

HULL, HESSLE—Humber Shores, River Hull and much alluvium.

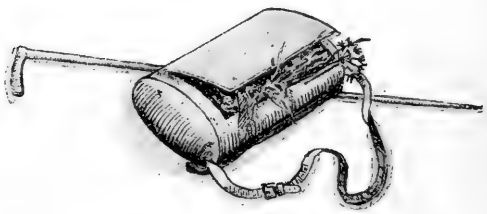
Wolds (Central Part)—HUNMANBY, Wold Newton, Foxholes, Weaverthorpe, Kirbygrindalyth, Sledmere, BURDALE, FIMBER, WETWANG, North Dalton, MIDDLETON-ON-WOLDS, LITTLE WEIGHTON, Risby, Skidby—Chalk and V-dales, with dry chalk gravels.

Wolds (Western Edge).—GANTON, SHERBURN, RILLINGTON, Wintringham, SETTRINGTON, NORTH GRIMSTON, Langton Road, Burythorpe, Acklam, Thixendale, Kirby-under-dale, Bishop Wilton, and Great Givendale; Warter, NUNBURNHOLME, Londesborough, MARKET WEIGHTON, Sancton, SOUTH CAVE, Newbald, Brantingham, BROUGH, Elloughton and Welton—Chalk dales on at least one side of the above, and sand and gravels on the other, with numerous springs and marshy places.

Derwentland (East of the River, including part of Pickering Carrs).—STAXTON, EAST and WEST HESLERTON, SETTRINGTON, Bugthorpe, FANGFOSS, Wilberfoss, BARMBY Moor, Allerthorpe—Alluvium, Sandy Commons, with uncultivated patches. HOLME-on-Spalding-Moor, Seaton Ross—A little moorland and much cultivated sandy alluvium.

Derwentland (West of the River).—Folkton, YEDINGTON, Welham, Kirkham Abbey, Firby—River and woods. STAMFORD BRIDGE—Gravelly and sandy alluvium. Catton, Sutton-on-Derwent, Ellerton, Bubwith, WRESSLE, HOWDEN, BARMBY-in-the-Marsh—Commons, alluvium, drains, and "delphs."* YORK, Fulford, NABURN, SELBY, Barlby, RICCALL, Skipwith, and Cliff.—Sandy alluvial commons, with more heather than elsewhere in the East Riding, and the River Ouse.

* Ponds.



METEOROLOGY.

PLANTS to a great extent are dependent for their healthy existence upon climatic conditions. Each species has a minimum temperature, 32° F. (0° C.), below which growth is arrested, and in some cases the plant actually dies owing to the freezing of the cell contents and the subsequent rupture of the cell walls. After periods of severe frost, it is not unusual for numbers of the less hardy species—*e.g.*, laurel, gorse, &c., to be killed.

On the other hand, plants have a maximum temperature, about 122° F. (50° C.), above which none will live. In our latitude this temperature is never reached, although indirectly a spell of very hot weather may so deprive the more sandy tracts of moisture that vegetation gets parched or scorched up. Between the minimum and maximum there is an optimum, or best temperature, at which the plant flourishes, and this is found to vary with the species. It may be taken for granted that a forward season indicates that the average temperature is high and therefore not far from the optimum, and conversely if the readings of the thermometer show a high average temperature, the season will be forward.

Owing to latitude, the East Riding climate is that characteristic of the cold temperate zone of the Northern Hemlsphere.

The physical features, the two plains, divided by the Wolds and the proximity of the North Sea, have an appreciable effect on the climate. There is, for example, found to be slightly more frost and rain on the east of the Wolds than on the west. The configuration of the Wolds, half enclosing Holderness as they do, may account for the fact that Southern

Holderness is one of the driest tracts in England. Observations made by Mr. W. B. Pugh, J.P., at Patrington, and extending over a long period of upwards of fifty years, show that the average annual amount of rainfall is, perhaps, the lowest of any other meteorological station in the British Isles, or indeed, it has been said, of any place in the world where rain ordinarily falls. By the great kindness of the assiduous observer just mentioned, we have been supplied with figures for fifty-two years, and find that the rainfall readings for that time average 23.31 inches annually.

Confirmative evidence of the atmospheric dryness of the East Riding seems to be afforded by quite another species of observation; for Mr. J. J. Marshall, of Beverley, a careful student of mosses, notices in this Riding a paucity of species as compared with the number in the other Ridings, and attributes the state of things largely to the prevailing dry conditions, mosses being essentially damp-loving plants.

The accompanying tables, which epitomise observations made at Hull, Driffield, and York, give information in averages for the inter-dependent factors of temperature, rainfall, and sunshine. From these averages the botanist may know in what state of forwardness or backwardness he may expect to find particular plants or vegetation generally. And this is important in some cases of the times of flowering. For example, we have sometimes noted that certain plants do not appear to flower at all in a given district. A season arrives, however, when we do find them in flower, and then subsequently by carefully noting the week of the year and the general forwardness or the reverse of the season, by opportune search the flowers are now invariably seen. Our failure for years to find the flowers of *Viola hirta*, a common species of the Wolds, is a case in point. We disregard first-flowering records, but we find that the highest, or best flowering of the various species, is almost constant to within 10 or 14 days, and this is indicated by Roman numerals in the sequel.

Annual Rainfall at Patrington, E. R. Yorks.

Recorded by Mr. W. B. Pugh, J.P.

Year.	Total Inches.	Year.	Total Inches.	Year.	Total Inches.
1847	21·01	1867	24·34	1887	16·00
1848	29·60	1868	23·53	1888	23.07
1849	22·26	1869	27·85	1889	24·15
1850	19·28	1870	22·52	1890	20·72
1851	21·05	1871	25·28	1891	23·31
1852	25·43	1872	33·64	1892	24·12
1853	22·71	1873	22·63	1893	19·57
1854	17·43	1874	18·49	1894	27·45
1855	21·33	1875	25·07	1895	26·71
1856	24·07	1876	30·65	1896	23·66
1857	19·87	1877	29·82	1897	24·30
1858	17·16	1878	29·32	1898	22·20
1859	19·16	1879	25·82		
1860	28·58	1880	30·76		
1861	18·62	1881	24·87		
1862	18·72	1882	33·40	Average Rainfall for 52 years, 23·31 inches.	
1863	18·84	1883	26·37		
1864	12·16	1884	17·39		
1865	15·99	1885	26·68		
1866	22·52	1886	24·03		

The careful and regular observations made at the Pearson Park, Hull, by the late Edward A. Peak, Superintendent, and extending over a period of 32 years, appear in the following table. The sunshine record is for a few years only.

Pearson Park, Hull.

Lat. 55° 45″ N., Long. 0° 15″ W. Elevation above sea-level (O. D.) 6 feet.

	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	
Average mean Temp.	37·2	38·5	40·4	44·5	49·6	56·7	60·0	59·2	55·1	49·3	42·8	37·5	Annual Average of mean 47·6°.
Average No. of inches of Rainfall.	1·74	1·85	1·78	1·68	2·15	2·16	2·38	2·85	2·10	3·41	2·12	2·20	Annual Average Total 27 in.
Average No. of hours of Sunshine.	20·	52·5	95·4	97·7	124·	142·7	157·4	147·4	96·5	68·8	16·9	5·5	Annual Average Total *1024·8 hours.

* Possibly understated.

Messrs. Lovell's observations at Driffield are averaged in the next table.

DRIFFIELD.

Lat. 54° 0′ 30″; Long. 0° 27′ 15″ W. Altitude 76 feet.

	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	
Average mean Temp.	36·1	37·7	40·2	43·5	51·1	60	57·3	57·8	55	47·4	41·2	35·4	Annual Average of mean 46·8°.
Average No. of inches of Rainfall (5 years).	1·51	1·78	1·48	1·60	2·42	1·70	2·14	3·35	1·40	3·66	2·66	1·9	Annual Average 26·02 in.
Average No. of hours of Sunshine per month (5 years).	49	65	133	158	191	184	173	149	145	100	42	37	Annual Average 1414hrs.

Mr. Platnauer's observations at York Museum appear below, and are extracted from the published reports of the York Philosophical Society for the twelve years ending December, 1901.

YORK.

Lat. 53° 57′ N.; Long. 1° 5′ W. Altitude 51 feet.

	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	
Average mean Temp.	37·0	37·8	40·5	45·6	50·8	57·6	60·3	59·6	60·3	47·1	43·9	39·3	Annual Average of mean 48°.
Average No. of inches of Rainfall.	1·72	1·51	1·32	1·47	1·84	2·34	2·20	2·98	1·68	2·87	2·12	2·07	Annual Average Total 24·2 in.
Average No. of hours of Sunshine per month.	33·0	62·8	114·7	144·2	185·8	173·6	172·0	144·7	137·6	86·6	36·5	24·1	Annual Average Total 1311·3 hours.

THE DISTRIBUTION OF EAST RIDING PLANTS.

EACH of the three main divisions described in the preceding pages comprises two or more sub-divisions, having their peculiar groups or associations of plants, which vary with local conditions. Lists of the members of the associations as observed in the East Riding will give a fairly clear and comprehensive view of the plant distribution of the vice county.

I. The Sea Coast has at least three areas, each with its own group, viz :—

(*a*) The Boulder Clay Cliffs of Filey and Bridlington Bays,

(*b*) The Chalk Cliffs of Flamborough Head, and

(*c*) The Sand and Dunes (of no great extent) chiefly at Spurn.

In Group (*a*) the plants are conspicuously pelophiles (clay-loving) with an apparent preference for the seaside, and include Ranunculus hederaceus, R. sardous, Geranium pusillum, Lotus corniculatus, vars. crassifolius and villosus, Cichorium Intybus, Tussilago Farfara, Convolvulus arvensis, Plantago coronopus, P. maritima, Rumex sanguineus, and Equisetum maximum. Of course, many other pelophiles are present on the Holderness Cliffs, but they will appear in their fuller association under another sub-division.

Group (*b*) has a number of xerophiles (dry-loving) such as are usually found on calcareous soils, but with maritime tendency, perhaps more correctly "halophytic" (salt plants),

having the fleshiness of this class, *e.g.* Cochlearia officinalis, Cerastium tetrandrum, an almost fleshy form of Anthyllis vulneraria, and Matricaria maritima.

The plants of (*c*), the sandy parts of the coast, form a very distinct association, nearly all the members of which show a characteristic succulency and a glaucous external colouring. Take for example Crambe maritima, Cakile maritima, Silene maritima, Hockyenia peploides, Eryngium maritimum, Statice Limonium, Convolvulus (Volvulus) Soldanella, Beta maritima, Atriplex litoralis, Salsola Kali, Hippophaë rhamnoides, Carex arenaria, Phleum arenarium, Ammophila arundinacea, Triticum junceum, and Elymus arenarius. The last three grasses, together with Hippophaë, sea buckthorn (the "dune-thorn" of the Dutch), are the principal agents in binding together the sands of the somewhat precarious spit of land forming Spurn peninsula and headland.

II. The Northern Bank of the Humber, whose tidal waters wash all three of the main physical divisions from Goole to Spurn, bears another very well marked group of plants. These are such as are usually found near an estuary, and many of them are also of undoubted halophytic tendency. Although they frequently bear the specific name, "maritima," they are scarcely seaside plants with us; indeed we rarely find any of them except along the estuary. Of the estuarine association are Buda (Spergularia) marina and B. media, Trifolium fragiferum, Bupleurum tenuissimum, Apium graveolens (Celery, an exceedingly common estuarine plant), Aster Tripolium, Artemisia maritima, Armeria maritima, Glaux maritima, Atriplex Babingtonii, A. portulacoides, Suæda maritima, Rumex maritimus, Triglochin maritimum, Ruppia spiralis, Juncus Gerardi, Scirpus maritimus, Carex divisa, C. extensa, Glyceria maritima, G. distans, Lepturus filiformis, and Hordeum marinum.

III. Of **Holderness** and **Derwentland** we have next to consider the vegetation found in watery places, and as these vary from the stagnant to the flowing condition, and also according to the subjacent rock, it is quite possible to make out several very distinct associations. The habitats we classify as under:—

(*a*) Rivers, streams, larger drains and canals.

(*b*) Dykes (narrow, sluggish, or stagnant open drains), ponds, and meres (lakes).

(*c*) Marshes, carrs, and ings (damp grassy fields) on the clay or clayey alluvium of Holderness.

(*d*) Marshy and boggy places in Derwentland, being sandy alluvial tracts, and marshy places adjacent to springs at the foot of the Wolds.

(*e*) Fields, woods, and lanes of Holderness.

(*f*) Fields, commons, lands, woods, &c., of Derwentland.

Observation of these habitats in order reveals the following characteristic groupings :—

In (*a*) the vegetation is, of course, hygrophilous (aquatic in a high degree), or sub-hygrophilous (*i.e.*, aquatic to such a degree that if not actually growing in water it is not far from it). In the waters of the rivers, streams, canals, and larger drains, often nearly adjacent to the Humber Estuary already described, grow the true hygrophiles ; on their banks and the muddy places adjacent are the sub-hygrophiles. Smoothness of external parts, an almost entire absence of hairiness, and an internal sponginess of tissue (lacunar tissue) are marks of hygrophilous plants. For many reasons the hygrophiles are of very great interest indeed. Their habitats being less liable to interference by man, they remain certainly the descendants of the more primitive members of our flora. The following group is not exhaustive :—Thalictrum flavum, Ranunculus circinatus, Nymphæa lutea, Castalia speciosa, Nasturtium amphibium, Hippuris vulgaris, Ceratophyllum demersum, Alisma Plantago, Sagittaria, Butomus, Polygonum rufescens, P. lucens, all except the first, true aquatics; whilst Thalictrum and the sedges, Carex vulpina, C. rostrata, C. paludosa, and the grasses Glyceria aquatica and Phalaris arundinacea, are sub-hygrophiles.

(*b*) Dykes, and muddy places adjacent thereto, together with ponds and larger natural ponds or meres, have an association of plants quite distinct from that held by the waters of the preceding. If one may give the group a special name it would surely have reference to the Batrachian Ranunculi (Water Crowfoot), the predominant plants. The association includes Ranunculus Drouetii, by far the commonest form, R. peltatus — of many varieties and forms, *e.g.*, floribundus and truncatus—R. Baudotii, which affects brackish water (and most dykes adjacent to the Humber in low-lying Holderness are brackish), R. sceleratus, R. Lingua,

and R. Flammula, Nasturtium officinale, N. palustre, N. sylvestre, Stellaria aquatica, Lychnis Flos-cuculi, Myriophyllum alterniflorum, and M. verticillatum, Sium latifolium and S. erectum, Œnanthe fistulosa, Œ. Lachenalii and Œ. Phellandrium, Senecio aquaticus, Hottonia palustris, Lysimachia Nummularia, Menyanthes trifoliata, Myosotis palustris, and M. repens, Utricularia vulgaris, and U. Minor, Mentha hirsuta, Lycopus europœus, Hydrocaris Morsus-ranæ, Elodea canadensis, Stratiotes Aloides, Iris Pseudacorus, Typha latifolia, and T. angustifolia, Sparganium ramosum, and S. simplex, Acorus Calamus, Lemna minor and the other three species of duckweed, Alisma ranunculoides, Potamogeton natans, P. polygonifolius, P. perfoliatus, P. crispus, P. densus, P. pectinatus, and P. flabellatus, Zannichellia palustris, Phragmites communis, and Glyceria fluitans.

(*c*) Of marshy places, carrs, and ings, or damp grass lands on the boulder clay, or clayey alluvium of Holderness —not peat bogs, as these are now almost entirely absent from this division—there is yet another group of aquatics, or semi-aquatic species, almost as distinct as that under the last sub-division (*b*). It includes Caltha palustris, Viola palustris, Stellaria palustris, Hypericum quadratum, Lathyrus palustris, Lotus major, Potentilla palustris, Lythrum salicaria, Lysimachia vulgaris, Menyanthes trifoliata, Pinguicula vulgaris, Salix triandra and S. pentandra, Epipactis palustris, Juncus communis, J. glaucus, J. acutiflorus, Scirpus pauciflorus, Carex dioica, C. teretiuscula, C. paradoxa, C. paniculata, C. muricata, C. filiformis, and C. vesicaria; of sedges, indeed, a wonderfully fine array. Calamagrostis Epigejos, and C. lanceolata, Lastrea Thelypteris, Equisetum palustre, and E. limosum.

(*d*) In marshy places in the Derwent district, the sandy alluvial tract and the spring marshes at the foot of the Wolds, although many of the hygrophiles in (*c*) are present, there are also some members of the association never found in Holderness. Such are, Sagina nodosa, Peplis Portula, Hypericum elodes, Parnassia palustris (abundant also on damp clay cliffs, but preferring the sandy or gravelly bottomed marsh), Drosera rotundifolia, and D. intermedia, Anagallis tenella, Gentiana Pneumonanthe, Limosella aquatica, Mentha Pulegium, Litorella juncea, Salix repens, Narthecium Ossifragum, Carex pulicaris, Osmunda regalis, and Pilularia globulifera.

(*e*) The fields, woods, and lanes of Holderness may be grouped together, although if strict nicety were observed the three might have distinct groups apportioned to each, and the groups would further vary as the soil, which is easily divisible into two kinds at least: viz., clayey, and gravelly, or sandy (see in the physiographical sketch, *supra*). Indeed, nothing is more striking and remarkable than the xerophile (dry-loving) island-like groups that appear amidst the surrounding pelophile vegetation of Holderness. The account of the morainic gravels will explain this, and the two following lists will illustrate :—

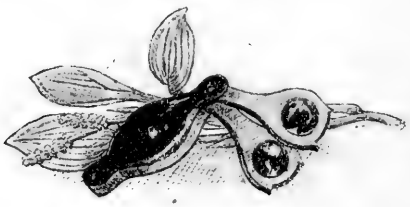
1. PELOPHILES—Ranunculus ficaria, R. auricomus, Stellaria Holostea, Lychnis diurna, Epilobium hirsutum and E. parviflorum, Viburnum opulus, Eupatorium cannabinum, Helminthia echioides, Tussilago Farfara, Senecio aquaticus, Pulicaria dysenterica, Convolvulus arvensis, Lysimachia nemorum, Primula veris (exceedingly common, whilst the primrose is almost a rarity in Holderness), Solanum dulcamara, Orchis mascula, Alisma Plantago, Carex glauca, C. panicea, C. C. vulpina, and C. riparia, Ophioglossum vulgatum, Equisetum maximum, and E. arvense.

2. XEROPHILES (on the glacial gravels)—Hypericum humifusum, Erodium circutarium, Trifolium arvense, Vicia lathyroides, Conium maculatum, Anthriscus vulgaris, and Marrubium vulgare.

(*f*) The fields (including commons), lanes, and woods, of Derwentland—a great tract of sandy alluvium. In this area we have naturally a predominance of the arenophiles, but not of the sea-side sort (halophytes), or of the xerophiles like those of the chalk or morainic gravels. The leading characters of the arenophiles seem to be a certain diminutiveness of size, wiriness of structure, and a certain hairiness, the latter, however, much less the case than in the xerophilous vegetation of the chalk. The following, not found at all in Holderness or on the Wolds, or only very sparingly there, are good examples of this arenophilous association :—Corydalis claviculata, Arabis Thaliana, Erophila vulgaris, Teesdalia nudicaulis, Cerastium semi-decandrum, Silene noctiflora, Hypericum humifusum, Radiola linoides, Saxifraga tridactylites, S. granulata (the only saxifrages found in the East Riding, but very commonly there), Genista anglica, Ornithopus perpusillus, Vicia lathyroides, Trifolium filiformis, Centunculus minimus, Myosotis collina and M. versicolor,

Calluna vulgaris, Erica Tetralix and E. cinerea, Pyrola minor, Scleranthus annuus, Rumex acetosella, Pinus sylvestris, Goodyera repens, Juncus squarrosus, Aira præcox, Aira (Deschampsia) flexuosa and A. flexuosa, Nardus stricta Molinia varia, Lastræa cristata, and Botrychium Lunaria. It is somewhat remarkable that no ericaceous plant except Monotropa affects the Wolds, whilst Holderness has only a single station for common heather. The sandy commons afford the only true heaths, and chiefly common heather (Calluna).

IV. The Wolds (chalk) have a very well marked association, again of xerophilous plants, but of such as in Yorkshire are rarely found off one form of limestone or another. Many of them are larger xerophiles with rough hairiness or woolliness. The group contains Clematis Vitalba, Papaver dubium, P. hybridum, Reseda lutea, Helianthemum vulgare, Viola hirta, Linum perenne, a single species of Saxifrage (S. tridactylites), Spiræa Filipendula, Poterium Sanguisorba, Centranthus rubra (which during the summer festoons in crimson the disused chalk-pits at Hessle), Sanicula europæa (in other places so much affecting clayey situations is the commonest plant in woods on the chalk), Scabiosa Columbaria, Senecia erucifolius, Carduus eriophorus, Picris hieracioides, Crepis biennis, Campanula rapunculoides, C. glomerata, Monotropa hypopitys (parasitic on mould or fungus investing roots of the Beech), Chlora perfoliata, Atropa belladonna, Origanum vulgare, Calamintha clinopodium, Galeopsis Ladanum, Plantago media (also on the oolitic limestone outcrop), Fagus sylvatica, Epipactis latifolia, Orchis pyramidalis, and Ophrys apifera. The most characteristic grasses are Milium effusum, Brachypodium pinnatum, Festuca sylvatica, Bromus scuiroides, and Avena pubescens; whilst the Oak Fern (Phegopteris Dryopteris) is known only in one station in the East Riding, and that is on the chalk.



SUMMARIES OF EAST RIDING PLANTS.

TOTALS of species according to the nature of their habitat, of which only types or characteristic examples are given in the foregoing, are approximately as follows :—

Hygrophiles (wet-loving plants) :—	
Aquatic (immersed or mostly immersed)	73
Paludal (marshy or near watery places)	109
Uliginal (bogs)	35
Xerophiles (dry-loving—on chalk or gravels) :—	
Calcarophytes (lime)	32
Arenophytes (sand or gravel)	43
Maritime	24
Estuarine	23
Ordinary (growing on dry land generally)	424
Denizens and Colonists	115
Aliens	137
Incognita	20
	1035

The total number of records of species, together with the number of their including genera and natural orders, up to date (June, 1902), may be gathered from the following table :—

PHANEROGAMIA. (Flowering plants)	ORDERS.	GENERA.	SPECIES.
Dicotyledones	70	331	761
Monocotyledones	15	115	237
Cryptogamia ... ... (Ferns, horse tails, &c.)	6	21	37
Totals	91	467	1035

The London Catalogue, ninth edition, 1895, on which our Flora is based throughout, includes for the British Isles the following: viz., 98 orders, 543 genera, and 1958 species. Comparing the numbers in the preceding table with those of the London Catalogue, we find a high percentage of orders and genera. It is in the number of species that the total may seem somewhat low; we, however, must remember the nature of the physical features as described under Physiography, above. General adaptability to cultivation may to some extent account for any apparent paucity of species, although in the case of cultivation and the extensive shipping operations associated with the Humber, whilst there may be a tendency to exterminate aboriginal vegetation, the loss to a greater extent than is generally imagined may be made up by the increased facilities for the introduction of immigrant "strangers and foreigners" (aliens).

Of the 98 orders of the London Catalogue, no fewer than 91 are represented in the East Riding, leaving only 7 orders that are not as yet accounted for. These are the following, viz. :—

11. **Frankeniaceæ.**
14. **Tamariscineæ.**
15. **Elatineæ.**
65. **Aristolochiaceæ.**
69. **Santalaceæ.**
72. **Empetraceæ.**
90. **Eriocauleæ.**

As regards the number of species, 1035; if we assume what is scarcely warranted, namely, that the vice county has been investigated as thoroughly as possible, it must appear that the paucity is due to lack of variety in the physical features and conditions of the land. With more thorough search in every available locality the number of species given above may be increased, even as regards our native plants as well as our dock waste-ground aliens.

From personal observations made during very many rambles in the East Riding, and extending over a period of 17 years, the comparative frequency of occurrence of the species seems to work out somewhat as follows, aliens and incognita being omitted :—

Species—	Very Common Generally	130
,,	Common	220
,,	Fairly Common	241
,,	Abundant in a few Localities	48
,,	Abundant Locally, or in one or two Localities	27
,,	Uncommon	133
,,	Rare	59
,,	Very Rare	20
		878

From the physiographical account given above, it will be evident that a flora has not always existed in the East Riding. For example, this would be the case when most, or all of the area was still under ice during the Glacial Epoch. If vegetation existed then, it must have been of a very meagre character; indeed, such as obtains in ice-covered Greenland to-day. Nor is it easy to imagine that the plants now growing here have all arrived on the soil at one and the same time. On the contrary, there is every evidence to show that plants, like other organisms, obey the laws of locomotion and migration which enable them to secure congenial soil and climate. And these laws are not manifested by leaps and bounds, but are comparatively slow and gradual processes. Some of the plants of our ballast-hills and dock-side "wastes" and "tips" arrived only yesterday, and were welcomed by none save the botanist. Some of our old garden plants introduced for cultivation may be a century or two old, and some of their descendants are now wild and thoroughly well established denizens; others came doubtless with seed corn, and look almost like aborigines, so completely have they made themselves at home in our fields; whilst others again have been here since shortly after the Ice Age just spoken of, and by so long possession of the soil may be reckoned truly natives. Some plants once with us, or said to have been with us once, are not now known, and in the Flora are reckoned "incognita."

Adopting the late Henry C. Watson's designations for these groups, we have as follows :—

1. **Natives,** or aboriginal possessors of the soil.
2. **Colonists,** or introductions of the historic period.
3. **Denizens,** or well-established horticultural plants.
4. **Aliens,** introduced plants not fully established.
5. **Incognita**—not now known to exist, or requiring confirmation.

Summarised approximately, the 1035 species recorded in the Flora give the following totals :—

	For Britain.	East Riding.
Natives	935	764
Colonists and Denizens	100	114
Aliens	135	137
Incognita	30	20
	1200	1035

It will be seen from the above that, compared with the figures for Britain as a whole, the number of recently introduced plants is fairly high, and consequently that of truly native plants somewhat low. Thus it would appear that on the whole the East Riding flora has a new or more recent look about it, in the same sense as we speak of the people of such a country as the United States. And this is what one might expect when one remembers the comparatively recent geological character of the land generally, and the widespread influence of the agriculturist and gardener who have not been able to introduce their cereals and other plants of economic value, together with numerous camp followers, without causing the retreat of many forms that would once upon a time hold more extensive possession. Yielding to a certain archæological taste, one might devote much time and trouble in finding out, if possible, what really were the aboriginal plants, although assuredly the task would be an almost hopeless one. The historian who can, so to speak, stand without the arena and report concerning the events transpiring within the same, has decided advantage over one who has to depend merely upon what may be considered internal natural evidence. But such a person is in a fair way, at least, to arrive at a big portion of the continuous natural record. This will be further elucidated by following the plan and nomenclature of the late H. C. Watson's "Cybele Britannica" particularly, as exemplified by Mr. J. G. Baker in his "New Flora of Northumberland and Durham" (1868), and Dr. F. A. Lees, "West Yorkshire Flora" (1887). A further analysis, according to "Types of Distribution," may be made, and such an analysis gives a very instructive comparison between the elements composing the flora of the East Riding (vice-county 61, S.E. Yorks.) and that of other vice-counties, or of Britain as a whole. Watson's "Types of Distribution" were the following, viz.:—

1. **British Type.**—Species generally distributed throughout Britain.
2. **English Type.**—Species having headquarters in England, diminish, and finally cease northward.
3. **Scottish Type.**—Species which, having headquarters in Scotland, diminish and finally cease southward.
4. **Highland Type.**—The boreal flora of the Scottish Highlands (not represented at all in East Riding of Yorkshire).
5. **Germanic Type.**—Species having their headquarters in S.E. England, and cease northward and westward.
6. **Atlantic Type.**—South-west of England plants, ceasing towards north and east.

7. **Intermediate Type.**—Species having their headquarters in the south of Scotland and north of England.
8. **Local Type.**—Species very much restricted in range, occurring in Britain in, say, one or two places only.

Tabulated as under, the East Riding records of species according to the above-named types of distribution, we have the following result :—

	Whole of Britain.	East Riding alone.
British Type	532	531
English Type	409	286
Germanic Type	227	26
Atlantic Type	70	4
Highland Type	120	—
Scottish Type	81	19
Intermediate Type	37	9
Local Type	49	3
Total	1425	Total ... 878
Aliens, Casuals, &c.	—	137
Incognita	—	20
Grand Total for East Riding		... 1035

From the above table, and from what has been said previously, we may gather that the very oldest vegetation are most probably those nineteen plants of the Scottish type, together with a great number of those of the British type, which would follow closely in the wake of the snowline and glacier as they do northwards to-day. The 272 plants of the English type, as they are well represented in more southern England, and are gradually diminishing northwards, may be considered as spreading or moving in that direction; but not having become so widely distributed as those of the British type, they give indications of their later immigration; and the same is probably the case with the plants of the Germanic type. It will, we think, be found that the percentage of plants of the English type, which in their northward march have their last halting place in the East Riding, is somewhat high. Both English and Germanic types give a decidedly more recent facies to our flora, and this is intensified by the recent introduction of so many aliens, casuals, &c. Incidentally in this connection it may be mentioned that from a careful comparison of the flora of the East Riding with that of Friesland and the Frisian Islands (north of Holland), in the same latitude but separated by four hundred miles of German Ocean, there is a striking general similarity between the two; and this is what might

have been expected from the similarity of physiographical and artificial conditions which obtains in the Yorkshire and Frisian areas. Both have much comparatively new land, river-made alluvium and tracts reclaimed from the sea, and as a consequence there is a distinctly new facies about the floras of both.

LIST OF INCOGNITA, OR PROBABLY EXTINCT PLANTS.

NAME.	REMARKS, GIVING REASON FOR REGARDING AS INCOG. OR EXTINCT.
Polycarpon tetraphyllum	In the old "Botanist's Guide," possibly a mistake for *Radiola linoides.*
Impatiens noli-me-tangere	At most an alien, even if once found at Market Weighton.
Lathyrus Nissolia	In the old "Botanist's Guide," as found by Mrs. Wharton, near Sigglesthorne—not recently confirmed.
Lathyrus sylvestris	One of Oliver's Beverley list—we know nothing of it now.
Rosa rubella	A garden escape, not found now.
Peucedanum palustre	Incognit now, although Col. Machell's specimen from near Beverley is still in the York Museum.
Galium anglicum	Not recently verified.
Dipsacus pilosus	do. do.
Lysimachia thyrsiflora	Not recently verified. Teesdale was doubtful, not having seen the plant himself.
Rhinanthus major	Possibly an alien importation at S. Cave.
Ophrys muscifera.	A likely enough plant, but probably confused with the bee orchis owing to its insect name.
Sparganium natans	Not recently seen, drainage having exterminated it.
Elisma (alisma) natans	Not recently seen. Possibly an error *ab initio.*
Carex Davalliana	An error. Teesdale's plant in the York Museum is not from Yorkshire.
Carex elongata	Extinct by drainage at Langwith.
Carex axillaris	Now extinct at Beverley owing to drainage.
Alopecurus bulbosus	Unknown now.
Bromus racemosus	Drainage has cleared away.
Melica nutans	One of Oliver's list, likely a slip for "uniflora."
Isoetes lacustris	Extinct by drainage.

ESCAPES, ALIENS, AND CASUALS.

MANY plants not yet by any means naturalised in our area have been introduced, and are still being introduced with garden plants, seed corn, and cargoes of ships. Seeds of the first, borne by wind or birds, germinate in various places amongst the older wild plants, and we designate them "escapes." Others not long since come to our shores grow in our corn fields or on their borders; whilst many more are found growing on waste grounds, especially near docks, where the sweepings of the holds of vessels, dock sheds, and railway trucks are "tipped." A perfect wilderness of exotics from many lands occurs near the Hull Docks, and the observation of these has been taken in hand with much assiduity by Messrs. Waterfall and Samuel Mason and the author himself, whilst their determination has been most kindly undertaken by Mr. S. T. Dunn, B.A., F.L.S., of Kew, one of our best authorities on plant "aliens." Besides exotics, there are plants accepted as British by botanical authorities, but not for the East Riding. They are usually plants of the English type, and in the list we have appended no centre from which they appear to have disseminated. On the other hand, there are many, as the list will show, which have not as yet been admitted into any edition of the London Catalogue. In former days our dock-side plants would be designated as of the "Ballast heap" class, but as earthy forms of ballast have been replaced by water, the term is no longer applicable.

LIST.

Ranunculus sardous, Crantz.	.....	Hull Docks.
Eranthis hyemalis, Salisb.	S. Europe.	Near gardens.
Delphinium Ajacis, Reichb.	,,	Cornfields.
Papaver somniferum, Linn.	.....	Near gardens.
a. hispidum. H. C. Wats.		,, ,,
b. glabrum. H. C. Wats.		,, ,,
Glaucium phœniceum, Crantz.	E. Europe.	Hull Docks.
Neckeria lutea, Scop.	.....	Old walls.
N. bulbosa, N. E. Br.	.....	Hotham Park.
Mathiola sinuata, R. Br.	S. Europe.	Hull Docks.
Barbarea præcox, R. Br.	,,	Cornfields.
Alyssum incanum, Linn.	C. Europe.	Hull Docks.
Alyssum calycinum, Linn.	.....	Cornfields.
Cochlearia Amoracia, Linn. (Horse-radish).	.....	Outcast from gardens.
S. Sophia, Linn.	.....	Hull Docks.
S. Loeselii.	.....	,,
S. columnæ, Jacque.	.....	,,
Erysimum perfoliatum, Crantz.	S. Europe.	Gardens and Hull Docks.
E. cheiranthoides, Linn.	.....	,,
Camelina sativa, Crantz.	.....	Cornfields and
b. fœtida (Fr.)		Hull Docks.
Euclidium syreacum, Linn	Levant.	Hull Docks.
Brassica Napus, Linn. (Rape).	.....	Nr. arable fields.
B. Rutabaga, D.C. (Swede).	.....	,,
Lepidium ruderale, Linn.	.....	Hull Docks.
L. sativum.	E. Europe.	,,
L. virginicum	N. America.	,,
Cakile maritima, Scop., *forma*	.....	,,
Saponaria Vaccaria, Linn.	.....	Corn & Docks.
Silene dichotoma, Ehrh.	.....	Hull Docks.
S. muscipula, Linn.†	S. Europe.	,,

† Mr. S. T. Dunn identifies.

M. pusilla, Sm.	S. Europe.	Hull Docks.
M. cretica, Linn.	,,	,,
Tilia vulgaris (Lime tree).	.....	Escaped.
Linum usitatissimum, Linn.	.....	Rubbish heaps
Geranium striatum, Linn.	.....	Near gardens.
G. phœum, Linn.	.....	Nr. dwellings.
Impatiens parviflora, D.C.	.....	Casual in gard.
Trigonella ramosa.	S. Europe.	Hull Docks.
T. maritima, Linn.†	,,	,,
T. Fœnum-græcum.†	,,	,,
T. cœrulea.†	,,	,,
Cornilla scorpioides.	,,	,,
Hippocrepis unisiliquosa.	,,	,,
Medicago sativa, Linn.	.....	,,
M. falcata, Linn.	.....	,,
M. arabica, Huds.	.....	,,
Melilotus arvensis, Wallr.	.....	,,
M. indica, All.	S. Europe.	,,
M. rugulosa.	.....	,,
Trifolium pratense, Linn. *a.* sativum, Schreb.	.....	Seed fields.
T. incarnatum.	.....	,,
T. hybridum, Linn. *b.* elegans (Savi).	.....	New grass fields.
Scorpiurus sub-villosa, Linn.†	Meditern.	Hull Docks.
Vicia sativa, Linn.	.....	Cultivat'd land.
Lathyrus Aphaca, Linn.	.....	Hull Docks.
L. hirsutus, Linn.	.....	,,
Prunus domestica, Linn.	.....	Hedges.
Spiræa salicifolia, Linn.	.....	Shrubberies & hedges near.
Fragaria elatior, Ehrh.	.....	In nurseries.
Potentilla norvegica, Linn.	.....	Hull Docks.
P. argentea, Linn.	.....	,,

† Mr. S. T. Dunn identifies,

Pyrus domestica, Ehrh.	.....	Hedges near orchards.
Ribes Grossularia, Linn.	.....	Hedges near gardens.
Sempervivum tectorum, Linn.	.....	Old roofs.
Œnothera biennis, Linn.	.....	Hull Docks.
Bupleurum rotundifolium. Linn.	.....	Hedon.
B. aristatum, Bartl.	S. Europe.	Hull Docks.
B. protractum, Lamk.†	,,	,,
Carum Carvi, Linn.	.....	,,
Fœniculum vulgare, Gaertn.	.....	Hessle Chalk Pits and Hull Docks.
Coriandrum sativum, Linn.	.....	Hull Docks.
Caucalis latifolia, Linn.	.....	,,
C. daucoides, Linn.	.....	,,
Lonicera caprifolium, Linn.	.....	Shrubberies.
Asperula arvensis, Linn.	.....	Hull Docks.
Centranthus ruber, DC.	.....	Hessle Chalk Pits.
Dipsacus fullonum, Linn.	Cultivated.	Hull Docks.
Xanthium Strumarium, Linn.	.....	,,
X. spinosum, Linn.	.....	,,
Achillea ligustica, All.†	C. Europe.	,,
Anthemis tinctoria, Linn.	S. Europe.	,,
Santolina chamæcyparissis, Linn.	,,	,,
Rhagadiolus stellatus, Gaertn.	,,	,,
Chrysanthemum Parthenium, Pers.	,,	,,
Parthenium hysterophorum.†	America.	,,
Petasites albus, Gaertn.	.....	Garden escape
Doronicum Pardalianches, Linn.	.....	Shrubbeties.
Senecio viscosus, Linn.	.....	Nr. railways and docks.
Villanova dissecta, Hook.†	Peru.	Hull Docks.

† Mr. S. T. Dunn identifies.

Cnicus arvensis, Hoffm.	.....	Hull Docks.
b. mitis, Koch.	E. Europe.	,,
d. setosus (Bess).	,,	,,
Onopordon Acanthium, Linn.	,,	,,
Mariana lactea, Hill.	,,	Village roads.
Centaurea aspera, Linn.	,,	Hull Docks.
C. Calcitrapa, Linn.	,,	,,
C. melitensis, Linn.	,,	,,
C. solstitialis, Linn.	,,	,,
C. diffusa, Lamk.†	,,	,,
Hemizonia pungens.	,,	,,
Ambrosia artemisefolia.	U.S.A.	,,
Crepis setosa, Hall, fil.	Europe.	Near railway.
Tragopogon porrifolium, Linn.	.....	Hull Docks.
Anagallis cœrulea, Schreb.	.....	Hull Docks & cornfields.
Asperugo procumbens, Linn.	.....	Hull Docks.
Borago officinalis, Linn.	.....	Near gardens.
Anchusa hybrida, Ten.†	S.E. Eur.	Hull Docks.
Echinospermum Lappula.	Europe.	,,
Cuscuta Trifolii, Bab.	,,	Clover fields.
Solanum nigrum, Linn.	.....	Cult. land and Hull Docks.
S. rostratum.	U.S.A.	Hull Docks.
Lycium barbarum, Linn.	.....	Forms hedges near the sea.
Physalis Alkekengi, Linn.†	.....	Hull Docks.
Hyoscyamus niger, Linn.	.....	Rubbish heaps and Hull D'ks.
Verbascum Thapsus, Linn. × †	.....	Hull Docks.
V. Blattaria, Linn.	.....	,,
Linaria Cymbalaria, Mill.	.....	Old walls.
Antirrhinum majus, Linn.	.....	Hessle Chalk Pits.
Mimulus luteus, Linn.	America.	Near R. Hull.

† Mr. S. T. Dunn identifies.

Salvia pratensis, Linn.	.....	Hull Docks.
S. Verbenaca, Linn.	.....	,,
S. verticillata, Linn.†	.....	,,
S. controversa, Ten.†	Levant.	,,
Stachys annua, Linn.	Europe.	,,
Leonurus marrubiastrum, Linn.†	The East.	,,
Lamium maculatum, Linn.	.....	Gard. outcast.
Sideritis montana, Linn.	.....	Hull Docks.
Plantago lanceolata, Linn. *b.* Timbali, Reichb. fil.	C. Europe.	,,
P. arenaria, Waldst. and Kit.	S. Europe.	,,
Amaranthus retroflexus, Linn.	.....	,,
Chenopodium Vulvaria, Linn.	.....	,,
C. polyspermum, Linn.	.....	,,
C. urbicum, Linn.	.....	,,
C. ficifolium, Sm.	.....	,,
C. glaucum, Linn.	.....	,,
C. murale, Linn.	.....	,,
C. hybridum, Linn.	.....	,,
Suæda altissima, Pall.†	Levant.	,,
Salsola Kali, Linn, var. Tragus, DC.	Meditern.	,,
Corispermum hyssopifolium, Linn.†	,,	,,
Fagopyrum esculentum, Mœnch. (Buckwheat).	C. Europe.	,,
Euphorbia Cyparissias, Linn.	.....	In old gardens.
Mercurialis annua, L.	.....	Hull Docks.
Ricinus communis (Castor oil).	.....	,,
Ornithogalum umbellatum, Linn.	.....	By side of railway.
Panicum miliaceum.	Meditern.	Hull Docks.
P. capillare.	S. Europe.	,,
P. Crusgalli.	.....	,,
Setaria viridis, Beauv.	.....	,,

† Mr. S. T. Dunn identifies.

S. glauca, Beauv.	.....	Hull Docks.
S. verticillata, Beauv.	.....	,,
S. italica.	S. Europe.	,,
Phalaris canariensis, Linn.	.....	Rubbish heaps and Hull D'ks.
Bromus tectorum, Linn.	Europe.	Hull Docks.
B. mollis, Linn. *d.* interruptus, Hackel.	.....	,,
B. scoparius.†	S. Europe.	,,
B. macrostachys, God.†	,,	,,
B. madritensis, Linn.	,,	,,
B. squarrosus, Bab.†	,,	,,
B. arvensis, Linn.	.....	New grass fields.
Lolium perenne, Linn. *e.* italicum, Braun.	.....	Hull Docks.
Hordeum marinum, Huds.	.....	,,

† Mr. S. T. Dunn identifies.

THE PLAN OF THE FLORA.

THE names and order of the species mentioned in the Flora are those of the London Catalogue, ninth edition, Part I. For any given plant the first entry is that of the species number in the London Catalogue, the insertion of which will obviate the necessity of giving other references for synonymy, &c. Then follow the generic and specific names, together with the acknowledged abbreviation of the authority for the specific name. When the authority abbreviation is enclosed in brackets it signifies that such plant is recognised as a species by that authority. Alien plant names are always in italics. The number which follows immediately indicates the number of vice-counties (H. C. Watson's, 112 for Great Britain) in which the species named has been found to occur.

Next come the common name when such exists, and in certain cases, local dialect names also are added.

The word "native," "denizen," "colonist," or "alien," succeeds and marks the rank of citizenship which the species is supposed to hold (see *supra* on distribution). The type (British, English, &c.) is then given.

The numerals following the last allude to the districts into which we have divided the East Riding, *i.e.* Watson's vice-county, 61, S.E. Yorks. (1. North Holderness; 2. South Holderness; 3. North Wolds; 4. South Wolds; 5. Derwent Carrs; 6. East Derwentland; 7. West Derwentland; see maps). 1-7 signifies general distribution. The entry of the other numerals is only for such districts as we have records rom.

The name of the month indicates the time of flowering,

and the Roman numerals I., II., III., or IV. the particular week or weeks when the flowering is at its best with us.

The succeeding remarks refer to frequency of occurrence, precise localities in which the plant has been observed, &c. The initials here indicate the authority for record. The mark *(=J.F.R.) shows that the E. Riding plant has been seen by the compiler of this work.

LIST OF ABBREVIATIONS

OF

NAMES OF AUTHORITIES, COLLECTORS, &c.,

WHICH APPEAR IN THE FLORA.

B.....Baines' "Flora of Yorkshire," 1840.

B. sup. .....Baines' "Flora," with Baker's Supplement, 1856.

J. B. .....Beanland, Mr. Joseph, of Saltaire, a regular annual visitor in the Howden district, contributed a large list of plants observed by himself in the district (in Derwentland).

W. H. B. ..... Blakeston, Mr. Wm. H., Solicitor, Driffield, collaborated with the late Rev. J. T. Harwood in working up a florula of Driffield and district.

W. N. C. .....Cheesman, Mr. Wm. Norwood, of Selby, Merchant, knowing well the Ouse and Derwent corner of the East Riding adjacent to Selby, marked a London catalogue for the plants observed by himself.

E. R. D.....East Riding Dialect.

O. B. G.....The old "Botanist's Guide," by Dillwyn & Turner, 1805.

J. T. H.....Harwood, the late Rev. J. T., of Driffield. Contributed a large list of plants.

M. H.....Harman, Mr. Matthew, of Scarborough, presented an Herbarium containing many East Riding plants gathered by himself.

J. J. M.....Marshall, Mr. Joseph Jewison, of Beverley (formerly Market Weighton), Chemist. Lists and Herbarium of Market Weighton and Houghton Moor neighbourhood. Mr. Marshall is solely responsible for the bryological adjunct to the work.

G. N.....Norman, the late George, of Hull, Merchant, left MS. records.

A. E. P.....Peak, the late Edward A., of Hull, City Parks' Superintendent, furnished many records.

H. F. P.....Parsons, Dr. H. F., late of Goole, now Croydon, furnished records per G. W. below.

T. P. .....Petch, Mr. T., B.A., B.Sc. (Lond.), Hedon, E. Yorks., has added several records for S. Holderness.

H. S. .....Smith, the late Harold, formerly of York and Hull, who worked with the late Mr. G. Norman, made a list of 600–700 plants seen by him in the East Riding. The list was lost, but Mr. Smith marked a London catalogue for the assistance of the compiler of this work.

M. B. S.....Slater, Mr. Matthew B., F.L.S., of Newbiggin, Old Malton, contributed a good list of the rarer plants found in the northern part of the East Riding.

R. T. .....Teesdale, the late Robert, of Castle Howard, Chief Gardener to the Earl of Carlisle. Linnæan Soc. Transactions, 1792–1798.

C. W.....Waterfall, Mr. Charles, of Hull, very frequently mentioned in the sequel, has given the greater part of ten years to the collection and determination of our East Riding plants, and has, perhaps, the most complete Herbarium thereof.

G. W.....Webster, Mr. George, of Holgate, York, a native of Holderness, has contributed important lists of records.

W. W. .....Whitwell, Mr. William, F.L.S., 4, Thurleigh Road, Balham, London, formerly of York, whence he investigated the part of our Riding adjacent to that city, marked and annotated a London catalogue for his findings, and has given much other valuable aid.

H. J. W. .....Wilkinson, Mr. Henry John, of York, whose investigations of the Derwentland Commons and botanical compilations, as Sub-curator (Botany) of the Yorkshire Philosophical Society, have been placed at our disposal.

* .....The Compiler, J. Fraser Robinson's mark, indicates that the E. Riding plant has been seen by himself.

Sp. ....Specimen in herbarium.

FLORA OF THE EAST RIDING OF YORKSHIRE.

RANUNCULACEÆ.

1. **Clematis vitalba.** *Linn.*, 49.
(Traveller's Joy).

Denizen, Eng., 3, 4. Aug., I.

Rather rare, but native, or thoroughly naturalised, in Boynton Woods, near Bridlington. Hessle Chalk Pits, where it has escaped from gardens.* Lane at Spring Head, Hull, where the late E. A. Peak thought it to be truly native.

7. **Thalictrum flavum.** *Linn.*, 69.
(Meadow Rue).

Native, Eng., 1, 2, 5, 6, 7. June, III.

Very frequent. Banks of R. Hull and of dykes and drains. Cottingham.* Marfleet.* Var. sphærocarpum, Lej., at Hornsea Mere (C.W.), and near York (W.W.); var. nigricans, Jacq., at Everingham.*

9. **Anemone nemorosa.** *Linn.*, 108.
(Wood anemone).

Native, Brit., 1-7. April, IV.

Common in copses and old lanes, as near Cottingham* and Swine.*

10. ***Anemone ranunculoides.*** *Linn.*

Alien.

Naturalised near a garden at Everingham. (James Backhouse, jun. B. sup.).

12. **Adonis autumnalis.** *Linn.*, 6.

(Corn Pheasant's Eye).

Colonist, 3.

Very rare, there being only one record: Bridlington Quay (H.S.).

14. **Ranunculus circinatus.** *Sibth.*, 60.

(Water Crowfoot).

Native, Eng., 1-7. June, II.

Fairly frequent in all divisions. Dykes in Dunswell Lane near Cottingham. Burton Constable Ponds.*

17. **Ranunculus tricophyllus.** *Chaix.*, 52.

Native, Eng., 1, 2, 7. June, II.

Not infrequent near Hull, as at Spring Head and Dunswell Lane, near Cottingham,* and Withernsea (C.W.).

18. **Ranunculus Drouetii.** *Godr.*, 60.

Native, Brit., 1-7. May, III.

The commonest form in all the divisions.*

19. **Ranunculus heterophyllus.** *Web. ex p.*, 43.

Native, Brit., 1-7. May, III.

Pools. Grimston Garth and Withernsea (C.W.). Marfleet, near Hull. Dunswell, Cottingham, and Hedon.*

20. **Ranunculus peltatus.** *Schrank.*, 77.

Native, Brit., 1, 2, 6, 7. May, I.

Common in Holderness. Var. truncatus (Hiern), at Sand-le-mere, with very large double flowers (C.W.); var. floribundus (Bab.), at Swine, in old fish ponds, and at Marton*; and var. penicillatus (Hiern), at Withernsea (C.W.) and Marfleet.*

21. **Ranunculus Baudotii.** *Godr.*, 45.

Native, Eng., 2. May, II.

Brackish water ponds, near River Hull (tidal), at Stoneferry, Hull.* Saltend Common, near Hedon.*

24. **Ranunculus hederaceus.** *Linn.*, 105.
(Ivy-Leaved Crowfoot).

Native, Brit., 2, 3. April, IV.

Not common. Wet places on clay. Flamborough Head (C.W.).* Also at Withernsea (C.W., 1899).*

25. **Ranunculus sceleratus.** *Linn.*, 100.
(Celery-Leaved Crowfoot).

Native, Brit., 1-7. June,

Very common in muddy dykes near Hull and Beverley.

27. **Ranunculus Flammula.** *Linn.*, 112.
(Lesser Spearwort).

Native, Brit., 1-7. June, II.

Common in shallow watery places. Very luxuriant in the old moat, Skipsea Brough.*

30. **Ranunculus Lingua.** *Linn.*, 81.
(Great Spearwort).

Native, Eng., 1, 2, 5. July, II.

Rather rare. Kirkham (B.). Still at Hornsea Mere, 1900.* Dumble Pit, near Beverley (Mr. F. Boyes).* Fine in a dyke between Beverley and Meaux (C.W. and Mr. T. Sheppard, F.G.S., July, 1901). Near Driffield, 1901 (W.H.B.).*

31. **Ranunculus auricomus.** *Linn.*, 87.
(Goldilocks).

Native, Brit., 1-7. May, I.

Common on clayey ground, under hedgerows, in Holderness,* and in all the other divisions.

32. **Ranunculus acris.** *Linn.*, 112.
(Upright Buttercup).

Native, Brit., 1-7. May, IV.

Everywhere abundant.* Var. vulgatus, Jord., near York (W.W.).

33. **Ranunculus repens.** *Linn.*, 112.
(Creeping Crowfoot).

Native, Brit., 1-7. June, III.

Less frequent than the preceding or succeeding, but in all the divisions.

34. **Ranunculus bulbosus.** *Linn.*, 102.
(Bulbous Crowfoot).

Native, Brit., 1-7. May, III.

Very common, particularly on the strong land of Holderness.

35. **Ranunculus sardous.** *Crantz.*, 75.
(Pale Hairy Crowfoot).

Native, Eng., 1-2. Aug., I.

Frequent. Holderness and Withernsea cliffs.* A distinctly clay-loving species. A glabrous form near the docks.

37. **Ranunculus arvensis.** *Linn.*, 68.
(Corn Crowfoot).

Native, Eng., 1-7. June, II.

In every cornfield.

39. **Ranunculus Ficaria.** *Linn.*, 110.
(Pilewort, or Lesser Celandine).

Native, Brit., 1-7. March, III.

Very common in damp places in fields and by drains,* var. "incumbens" (F. Schulz.), not infrequent.

40. **Caltha palustris.** *Linn.*, 112.
(Marsh Marigold).

Native, Brit., 1-7. April, I.

Common in all the districts. In one or two places a form flowers profusely in September, as in dykes in Dunswell Lane, near Cottingham.*

43. **Helleborus viridis.** *Linn.*, 28.
(Green Hellebore).

Denizen, Ger., 2, 4, 6.
Londesbro' (B.). Meaux Abbey.* Wressle (W.N.C.).

44. **Helleborus fœtidus.** *Linn.*, 16.
(Bear's Foot).

Denizen, Ger., 2, 3. March, I.

Inglemire Lane, near Hull, an escape.* Plentiful in plantation, North Grimston (M.B.S.).

45. ***Eranthis hyemalis.*** *Salisb.*
(Winter Aconite).

Alien. Feb., IV.

Very frequent in the East Riding, and abundant in woods near dwellings. Hotham Park, and fields near Rowley Woods,* Little Weighton, where it appears thoroughly at home.

46. **Aquilegia vulgaris.** *Linn.*, 60.
(Common Columbine).

Native, Eng., 3, 4, 5, 7.
Rare. In Beverley Westwood (B. and J.J.M.). "Danes" Dyke, Flamborough, and Settrington (M.B.S.). Barlby (W.N.C.). "Small plantation in Cottingham" (MS. note in Hull Lit. and Phil. copy of Baines' "Flora").

47. ***Delphinium Ajacis.*** *Reichb.*
(Larkspur).

Alien. June, III.
Rare. In cornfields. Newsholme (J.B.).

48. **Aconitum Napellus.** *Linn.*, 7.
(Monkshood).

Alien. June, IV.

Outcast or escape from gardens. In plantation at Drewton Dale (C.W.).*

49. **Actæa spicata.** *Linn.*, 5.
(Baneberry).

Native, Inter., 3, 5.

Rare. Firby and Howsham woods (M.B.S.) and Bessingdale.*

BERBERIDEÆ.

51. **Berberis vulgaris.** *Linn.*, 82.
(Common Barberry).

Denizen, Eng., 1-7. May, IV.

In hedgerows at Cottingham.* Allerthorpe (C.W.). North Newbald.* Barlby (W.N.C.).

NYMPHÆACEÆ.

53. **Nymphæa lutea.** *Linn.*, 91.
(Yellow Water-lily).

Native, Eng., 1, 2, 5, 6, 7. July, I.

In drains. Near Sutton-on-Hull. Hornsea Mere, and in canals and the Delphs near Hull and Selby, N.E.R. line.* Stamford Bridge (W.W., 1866).

55. **Castalia speciosa.** *Salisb.*, 88.
(White Water-lily).

Native, Brit., 1, 2, 5. Aug., I.

At Welwick Springs (M.B.S.). Near Driffield (W.H.B.). Introduced at Rise Park.* Leven Canal, Holderness.*

PAPAVERACEÆ.

56. ***Papaver somniferum.*** *Linn.*
(White Poppy).

Alien.

Hessle Chalk Pits. Both vars., hispidum (H. C. Wats.) and glabrum (H. C. Wats.), have been noted (C.W.). "Burlington Quay." S. Hailstone. (B. sup.).

57. **Papaver Rhœas.** *Linn.*, 104.
(Common Red Poppy).

Colonist, Brit., 1-7. July, II.
Common in cornfields. Var. strigosum, Boenn, near Willerby (C.W.).

58. **Papaver dubium.** *Linn.*, 104.
(Long, smooth-headed Poppy).

Colonist, Brit., 1-7. July, III.
Not common. At Sancton (J.J.M.).* Sandholme (J.B.).* Near Selby (W.N.C.). Brough and Willerby (C.W.).*

59. **Papaver Argemone.** *Linn.*, 87.
(Long, prickly-headed Poppy).

Colonist, Brit., 1-7. July, III.
Near Howden (J.B.). Beverley (B.). Hull Bridge.*

60. **Papaver hybridum.** *Linn.*, 40.
(Round, rough-headed Poppy).

Alien, Eng.
In cornfields and on Wolds (B.). Near Brough (E.A.P.).

61. ***Meconopsis cambrica.*** *Vig.*, 14.
(Welch Poppy).

Alien, Atlantic. July, I.
Londesbro' (B.); very certainly introduced, like a good many more of the Londesbro' plants (J.F.R.).

62. **Glaucium flavum.** *Crantz.*, 52.
(Yellow Horned Sea Poppy).

Denizen, Eng., Incog. Aug., I.
At Hornsea, recorded by Teesdale (1789), but not since confirmed. Unknown anywhere else in the Riding.

63. ***Glaucium phœniceum.*** *Crantz.*

Alien. June, IV.
Hull docks. Common year after year. 1899-1900-1901.*

65. **Chelidonium majus.** *Linn.*, 96.
(Celandine).

Denizen, Eng., 1-7. June, I.

Near Cottingham.* Selby. Kirkham Abbey, Kexby, and Naburn Lane (B.). Welton Mill (C.W.).

FUMARIACEÆ.

66. ***Neckeria bulbosa.*** *N.E.Br.*

Alien.

Escape, Hotham Park (C.W.).

67. ***Neckeria lutea.*** *Scop.*

Alien.

Londesbro.' (B.) and old garden wall, Water Fulford (W.W.).

68. **Neckeria claviculata.** *N.E.Br.*, 87.
(White Climbing Corydalis).

Native, Brit., 6, 7. Aug., I.

Houghton Woods (J. J. M.).* Mains plantation, Holme-on-Spalding-Moor (C.W.). Langwith Common, 1878 (W.W.).

70. **Fumaria Boræi.** *Jord.*, 50.

Native, Eng., 7.

Skipwith Common (H.F.P).

74. **Fumaria officinalis.** *Linn.*, 106.
(Common Fumitory).

Colonist, Brit., 1-7. June, I.

Common in cornfields and waste places near cultivated ground.*

CRUCIFERÆ.

77. ***Mathiola sinuata.*** *R.Br.*

Alien. June, III.

Waste ground near Hull Docks.

79. **Cheiranthus Cheiri.** *Linn.*
(Wallflower).

Denizen. June, III.
Old Walls, Beverley.* Howden Church walls.*

80. **Nasturtium officinale.** *R.Br.*, 112.
(Common Watercress).

Native, Brit., 1-7. June, II.
Very common in all dykes and shallow watery places. Var. siifolium, Reichb., near Cottingham.

81. **Nasturtium sylvestre.** *R.Br.*, 63.

Native, Eng., 1, 2, 6, 7. July, IV.
Not infrequent between Beverley and Hull (B.). Howden (J.B.). Barlby (W.N.C.).

82. **Nasturtium palustre.** *DC.*, 84.
(Marsh Yellow Cress).

Native, Eng., 1, 2, 6, 7. June, II.
Frequent. Skipsea in Holderness,* near Skipwith (W.N.C.), and Howden (J.B.).

83. **Nasturtium amphibium.** *R.Br.*, 46.

Native, Eng., 1, 2, 5, 7. June, III.
Common in Holderness dykes, near Dunswell, Lambwath Stream, and Sutton. Var. variifolium, DC., Fulford Ings and Stamford Bridge, 1866 (W.W.).

84. **Barbarea vulgaris.** *R.Br.*, 97.
(Yellow Rocket).

Native, Brit., 1-7. July, I.
Frequent near drains, Hull and Cottingham.* Banks of the Ouse (W.N.C.). Near Howden (J.B.).

88. ***Barbarea præcox.*** *R.Br.*

Casual.
In cornfields on Wolds, Driffield (M.H.).*

93. **Arabis hirsuta.** *Scop.*, 96.
(Hairy Rock Cress).

Native, Brit., 3, 4, 6. May, III.

On Wolds, near Beverley (R.T., 1790).* Newbald and Houghton Moor (C.W.).* Near Heslington Mill (H.J.W., 1883).

96. **Cardamine amara.** *Linn.*, 75.
(Large flowered Bitter Cress).

Native, Brit., 6. June, I.

Rare. In old gravel pits, in wet places, near R. Derwent, Kirkham (M.B.S.). Near Howden (J.B.).

97. **Cardamine pratensis.** *Linn.*, 112.
(Cuckoo Flower).

Native, Brit., 1-7. May, II.

Very common in Holderness: proliferous and bulbil bearing specimens are frequent near Hornsea. Var. dentata (Hayne & Welw.), found in one place near "Gibraltar," R. Hull, 1897.*

98. **Cardamine hirsuta.** *Linn.*, 110.
(Hairy Bitter Cress).

Native, Brit., 1-7. April, II.

Very common. One of the early-flowering spring plants.

99. **Cardamine flexuosa.** *With.*, 101.

Native, Brit., 2. June, I.

Near Snuff-mill, Cottingham,* and in Kelsey Hill gravel pits.* Bank of R. Hull, near Beverley.* Hall Ings near Cottingham.

102. ***Alyssum incanum.*** *Linn.*

Alien.

Common on the dock waste grounds, Hull.

103. ***Alyssum calycinum.*** *Linn.*

Alien.

In cornfields at South Cave* and Welton (C.W.).

109. **Erophila vulgaris.** *DC.*, 104.
(Common Whitlow Grass).

Native, Brit., 1-7. April, I.

Sandy and gravelly places and tops of old walls, as at North and South Cave.* Kelsey gravel pits, Holderness.*

112. **Cochlearia officinalis.** *Linn.*, 82.
(Common Scurvy Grass).

Native, Brit., 1, 2, 3, 5. April, I.

Very common on the coast, especially at Flambro' Head.*

115. **Cochlearia danica.** *Linn.*, 49.
(Danish Scurvy Grass).

Native, Brit., 2.

At Hornsea (Y.N.U.).

117. **Cochlearia anglica.** *Linn.*, 46

Native, Eng., 6.

Rare. Brough, "introduced" (C.W.).

118. **Cochlearia armoracia.** *Linn.*
(Horse-radish).

Alien.

Escape at some distance from gardens, Cottingham Lane, near Hull.*

120. **Sisymbrium Thalianum.** *J. Gay*, 99.
(Thale Cress).

Native, Brit., 1-7. May, III.

Kelsey Hill gravel pits, Holderness.* Kilnsea Warren,* and near Market Weighton (J.J.M.).*

121. **Sisymbrium officinale.** *Scop.*, 110.
(Common Hedge Mustard).

Native, Brit., 1-7. May, II.

Waysides. Very common everywhere.

123. **Sisymbrium Sophia.** *Linn.*, 64.
(Fine-Leaved Hedge Mustard, or Flixweed).

Colonist, Eng., 2, 3, 6.

Uncommon. Bridlington, 1799 (S. Hailstone). Driffield Wold (M.H.).* Brough (C.W.). Near Flamborough Lighthouse. O. A. Moor (B. sup.). Common near the Hull Docks, 1899-1901.

Sisymbrium columnae.

Alien.
Very common. Hull Docks and waste ground.

Sisymbrium Loeselii.

Alien.
Ibid.

126. **Sisymbrium alliaria.** *Scop.*, 99.
(Garlic Mustard).

Native, Brit., 1-7. May, II.

Near all drains and dykes and hedgerows of Holderness and the other districts.

127. ***Erysimum cheiranthoides.***

Alien.
Near mills, Stoneferry, and on the dock waste ground, Hull.

128. ***Erysimum perfoliatum.*** *Crantz.*
(Hare's Ear. Treacle Mustard).

Alien.
Garden and cornfield weed. Market Weighton (J.J.M.).* Plentiful at the Hull Docks.

129. ***Camelina sativa.*** *Crantz.*
(Gold of Pleasure).

Casual.
Wolds (B.). Near Market Weighton (J.J.M.).* Abundant near to Hull Docks. Var. foetida, Bridlington (F. A. Lees).

137. **Brassica Sinapioides.** *Roth.*, 63.
(Black Mustard).

Colonist, Eng., 1-2. June, I.
Drainsides near Hull.

Brassica Rapa. *Linn.*
(Rape).

Alien.
Near Hull Docks.

139. **Brassica sinapistrum.** *Boiss.*, 112.
(Charlock, "Brassics," and Ketlock).

Colonist, Brit., 1-7. June, I.
Every cornfield.

140. **Brassica alba.** *Boiss.*, 82.
(White Mustard).

Colonist, Eng., 2, 4. June, I.
Cornfields, South Cave. All the mustards are, or have been, much cultivated on the rich alluvium bordering the Humber, as on Sunk Island, Holderness.

142. **Diplotaxis tenuifolia.** *DC.*, 41.
(Wall Rocket).

Denizen, Eng., 5.
Rare. Kirkham Abbey (M.B.S.).

143. **Diplotaxis muralis.** *DC.*, 53.
(Sand Rocket).

Denizen, Eng., 3, 4.
Common. Waste places in chalk pits at Hessle, and on chalky, gravelly roads near Hull.

144. **Bursa Bursa-pastoris.** *Weber*, 112.
(Shepherd's Purse).

Native, Brit., 1-7.

Everywhere by waysides, &c., and as a weed in gardens and cultivated fields.

146. **Coronopus Ruellii.** *All.*, 81.
(Wart Cress).

Native, Eng., 1-7.

Very common on footpaths near cultivated places. Streets of Beverley (B.).

Lepidium virginicum.

Alien.

West Dock waste, Hull.

148. ***L. ruderale.*** *Linn.*, 38.
(Narrow-leaved Pepperwort).

Alien.

Near Humber at Marfleet. Speeton Cliffs (B.). Brough (C.W.). Abundant at the Hull Docks.

150. **L. campestre.** *R. Br.*, 86.
(Common Pepperwort).

Native, Brit., 1-7. July.

In cornfields. Frequent.

152. **L. Draba.** *Linn.*
(Whitlow Pepperwort).

Denizen, Eng., 2, 4, 6. June, II.

Near docks, Hull.

153. **Thlaspi arvense.** *Linn.*, 54.
(Field Penny Cress).

Colonist, Brit., 1-7. August.

Frequent. Willerby.* Londesboro' and Shipton (B.). Brough (C.W.).* Hull Docks.*

157. **Teesdalia nudicaulis.** *R. Br.*, 72.

Native, Eng., 6. June, II.

Rather uncommon. Langwith (W. Middleton, 1820), same locality (H.J.W., 1890). Holme-on-Spalding-Moor, on sandy places (B.) and (J.J.M.).*

160. **Crambe maritima.** *Linn.*, 32.

(Sea Kale).

Native, Eng., 1, 2. May, III.

Sand-le-Mere (H. Smith, sp.).* Coast between Bridlington and Hornsea (B.). Apparently now extinct, as it has been much sought for of late, but in vain.

161. **Cakile maritima.** *Scop.*, 64.

(Purple Sea Rocket).

Native, Brit., 1, 2, 3, 5. July.

Very frequent on South Holderness sea coast, as at Spurn and Sand-le-Mere.* A changed variety is very common on the Dock "tips," Hull.

162. **Raphanus Raphanistrum.** *Linn.*, 110.

(Wild Radish).

Colonist, Brit., 1-7. July.

Frequent in cornfields, especially on the Wolds, as near Willerby, Kirk Ella.*

163. **R. maritimus.** *Sm.*, 26.

(Sea Radish).

Colonist, Eng., 3.
Bridlington, &c. (B.).

RESEDACEÆ.

165. **Reseda lutea.** *Linn.*, 53.

(Wild Mignonette).

Native, Eng., 3, 4. Aug., III.

On the Wolds. Drewton.* North Grimston (M.B.S.). Introduced on the Hull dock wastes.

166. **R. Luteola.** *Linn.*, 95.

(Dyers' Weed).

Native, Brit., 1-7. July.

Common on railway embankment and in chalk pits. Drewton cutting.*

CISTINEÆ.

170. **Helianthemum Chamæcistus.** *Mill.*, 92.

(Common Rock-rose).

Native, Brit., 1, 3, 4. June, III., IV.

Chiefly on the Wolds, and very common there; also on gravelly places in Holderness, as at Brandesburton. Distinctly a xerophile.

VIOLARIEÆ.

172. **Viola palustris.** *Linn.*, 104.

(Marsh Violet).

Native, Brit., 2, 6, 7. May, II.

Near Market Weighton (J.J.M.).* Hall Ings, near Cottingham (H.S.). Skipwith Common (W.N.C.). Langwith (H.J.W., 1882).

173. **V. odorata.** *Linn.*, 80.

(Sweet Violet).

Native, Eng., 1-7. April, I.

Very common in the East Riding, both on the chalk and in Holderness.* Var. alba (Lange) also common.*

174. **V. hirta.** *Linn.*, 72.

Native, Eng., 3, 4. May, I.

Very common on the Wolds in early May. A small form is found flowering in Drewton Dale in August.*

175. **Viola silvestris.** *Reich.*, 51.

Native, Brit., 2, 3, 4. April, II.

Not very common. Raywell.* Beverley on chalk (J.J.M.).* On gravels near Hornsea Mere (C.W. and *).

176. **V. Riviniana.** *Reich.*, 112.

(Dog Violet).

Native, Brit., 1-7. April, III.

Very common, particularly on chalk, as at Mount Airy, South Cave.* Also in old lanes in the Holderness division.

178. **V. ericetorum.** *Schrader.*, 83.

(Dog Violet).

Native, Brit., 2-4. May, IV.

Not infrequent. Spurn (C.W., fide Beeby). Var. with bright yellow spur, Welton Dale, May 27, 1901 (Y.N.U.*).

181. **V. tricolor.** *Linn.*, 112.

(Pansy).

Colonist, Brit., 1, 6, 7. July.

Not very common in the East Riding.

182. **V. arvensis.** *Murr.*, 100 (?).

(Cornfield Pansy).

Colonist, Brit., 1-7. August and September.

Very common in cornfields.

POLYGALEÆ.

185. **Polygala vulgaris.** *Linn.*, 79.

(Milkwort).

Native, Brit., 2, 3, 4. June and July.

Near the railway, Hall Ings, Mr. A. B. Moorby, Cottingham, June, 1900.*

187. **Polygala serpyllacea.** *Weihe.*, 91.
(Milkwort).

Native, Brit., 2, 3, 4. June and July.

Very common on Wolds or dry grassy places, *e.g.*, on tumuli, Hall Ings, Cottingham.

CARYOPHYLLEÆ.

199. ***Saponaria Vaccaria.*** *Linn.*

Alien.

Weed in Mr. R. H. Philip's garden, Hull, and also in cornfield, Driffield (C.W.). Abundant on the Hull dock wastes.*

200. **S. officinalis.** *Linn.*
(Soapwort).

Denizen, Eng., 2, 6. August, II.

Rare, but seems to be native at Brough, East Riding,* Shipton, near Market Weighton, and Cottingham Moor (B.).

201. **Silene Cucubalus.** *Wibel.*, 104.
(Bladder Campion).

Native, Brit., 1-7. July, II.

Frequent. Var. puberula, Syme at North Cave (sp. J.F.R.) and Elloughton Vale (C.W.).

202. **S. maritima.** *With.*, 78.
(Sea Bladder Campion).

Native, Brit., 1, 2. July.

At Hornsea, but there are doubts about it being this species.

205. **S. anglica.** *Linn.*, 57.

Colonist, Eng., 1-7. Summer.

Common in cornfields. Market Weighton (J.J.M.). South Cave.* Hornsea (C.W.). Langwith and Heslington (B. sup.).

211. **Silene noctiflora.** *Linn.*, 44.

Colonist, Eng., 1, 3, 4, 5, 6. August.

Rare in sandy cornfields. Heslington (O. A. Moore, 1840). Sandholme (J.B.). At Norton in North Derwent district by G. Webster (W.W.). In Hull docks.* Waste ground, Bridlington (C.W.).

213. **Lychnis alba.** *Mill.*, 102.

(White Campion).

Native, Brit., 1-7. May, II.

Uncommon in Holderness. Railway embankments and cornfields near Hull.*

214. **L. dioica.** *Linn.*, 111.

(Red Campion).

Native, Brit., 1-7. May, III.

Common in copses, occasionally with white flowers, as at Hornsea.

215. **L. Flos-cuculi.** *Linn.*, 112.

(Ragged Robin).

Native, Brit., 1, 2, 5, 6, 7. June, I.

Very common in marshy places, as at Hornsea Mere, Hall Ings, &c.

218. **L. Githago.** *Scop.*, 100.

(Corn Cockle).

Colonist, Brit., 1-7. August.

Sparingly in cornfields at Rise, Holderness.* More plentiful on the dock wastes at Hull.

221. **Cerastium tetrandrum.** *Curtis*, 75.

Native, Brit., 3. June.

Uncommon. At Flamboro' "on a wall" (B.), and on the Cliffs of the headland.*

223. **Cerastium semidecandrum.** *Linn.*, 87.
(Little Mouse-ear Chickweed).

Native, Brit., 2, 6. April, II.
Frequent. Old gravel heaps near Brough, East Riding (J.F.R., sp., 1898). Spurn (T.P., 1898). Market Weighton, April, 1899.*

224. **C. glomeratum.** *Thuill.*, 112.

Native, Brit., 1-7. Summer.
Common, especially on dried peaty places, as at Hall Ings, Cottingham.* On railways and gravel walks.

225. **C. triviale.** *Link.*, 112.
(Narrow-leaved Mouse-ear Chickweed).

Native, Brit., 1-7. Summer.
Common on edges of grass fields.

228. **C. arvense.** *Linn.*, 69.

Native, Brit., 2, 3, 4. May, IV.
Road-sides, on the Wolds, Little Weighton, North and South Cave; Kelsey Hill, Holderness.* A true xerophile.

230. **Stellaria aquatica.** *Scop.*, 57.

Native, Eng., 2, 7. July.
"Near York and Hull, frequent near Beverley" (B.). Still found sparingly every year in Dunswell Lane, near Cottingham.*

231. **S. nemorum.** *Linn.*, 47.

Native, Scot., 5. July.
Very rare. Only known in Howsham Woods (Sp. in Herbm. York. Mus., subscribed by H. Ibbotson, 1850).

232. **S. media.** *Cyr.*, 112.
(Common Chickweed).

Native, Brit., 1-7. March to November.
Everywhere in cultivated places. Var. Boræana, Jord., at Sutton-on-Hull (C.W.).

233. **Stellaria umbrosa.** *Opiz.*, 22.

Native, Eng., 2.
Uncommon. Burstwick, Holderness (C.W.).

234. **S. Holostea.** *Linn.*, 109.
(Greater Stitchwort).

Native, Brit., 1-7. May, III.
Hedgerows and copses, common.

235. **S. palustris.** *Retz.*, 54.

Native, Eng., 1, 2, 5, 6, 7. June, I.
Uncommon. Edge of Hornsea Mere.* Beverley (Colonel Machell, 1898, B.). Near Kirkham (B.). Skipwith Common (C.W.). Howden (J.B.).

236. **S. graminea.** *Linn.*, 109.
(Lesser Stitchwort).

Native, Brit., 1, 2, 5, 6, 7. July.
Frequent in damp ground.

237. **S. uliginosa.** *Murr.*, 110.
(Bog Stitchwort).

Native, Brit., 1-7. June, I.
Frequent in wet ground in all the districts.

241. **Arenaria tenuifolia.** *Linn.*, 34.

Native, Eng., 5. June.
Rare. "In a field near Kirkham Abbey" (B.).

242. **A. trinervia.** *Linn.*, 100.

Native, Brit., 1-7. June, I.
Shady hedgerows, very common.

243. **A. serpyllifolia.** *Linn.*, 110.

Native, Brit., 1-7. June, IV.
Very common on chalk and gravel. Var. leptoclados (Guss.) at Norton by G. Webster, 1886 (W.W.).

247. **Arenaria peploides.** *Linn.*, 72.
(Sea Purslane).

Native, Brit., 1, 2, 5. May to August.
Common on the Holderness coast.

250. **Sagina apetala.** *Linn.*, 70.
(Small-flowered Pearlwort).

Native, Eng., 2. Summer.
Cliff top, Withernsea (J.J.M.), and not infrequent in other places.*

251. **S. ciliata.** *Fr.*, 66.

Native, Eng., 2. May, IV.
Behind the embankment, Saltend Common, near Hedon, 1901.*

253. **S. procumbens.** *Linn.*, 112.
(Pearlwort).

Native, Brit., 1-7. Summer.
Very common on walks and road-sides.

258. **S. nodosa.** *Fenzl.*, 98.
(White Sandwort).

Native, Brit., 6-7. August, I.
Sparingly. Noted at Brough and Everingham.* Tilmire (B.).

259. **Spergula arvensis.** *Linn.*, 112.
(Corn Spurrey).

Colonist, Brit., 1-7. July.
A common weed in cornfields.

260. **Buda rubra.** *Dum.*, 97.
(Red Sandwort).

Native, Brit., 6-7. Summer.
Sparingly on sandy places, as near Market Weighton (J.J.M.). Skipwith Common.*

261. **Buda marina.** *Dum.*, 45.
(Sea-side Spurrey).

Native, Brit., 2, 4, 6. Summer.

Very common on the muddy foreshore of the Humber. Var. neglecta, Kindb., is the most conspicuous variety on the Humber shore.* Brough (H.F.P.).

262. **B. media.** *Dum.*, 44.

Native, Brit., 4. Summer.

Not common. Humber bank, Hessle, by G. Webster, 1879 (W.W.). At Paull, August, 1900.*

264. **Polycarpon tetraphyllum.** *Linn.*, 4.

Incog.

"Incognit." (B. sup.). O.B.G., 673, gives P.W.W. as authority on fide, W. Brunton.

PORTULACEÆ.

266. **Claytonia perfoliata.** *Donn.*
(Claytonia).

Colonist, 2.

On sandhills, Spurn (T.P.).

267. **Montia fontana.** *Linn.*, 108.
(Water Blinks).

Native, Brit., 1-7. May, IV.

Near Market Weighton (J.J.M.). Very common, Swine Moor, Beverley, 1899. Saltend Common, near Hedon (1900).* Tilmire (H.S.). Near the springs, Wharram Dale, and near Settrington (M.B.S.).

HYPERICINEÆ.

271. **Hypericum Androsæmum.** *Linn.*, 80.

Native, Atlantic. July.

Londesboro' (B.); most likely introduced there.

275. **Hypericum perforatum.** *Linn.*, 101.
(St. John's Wort).

Native, Brit., 1-7. August.

Frequent in the western districts, but uncommon in Holderness. Brandesburton,* and Skidby near Cottingham.*

277. **H. quadratum.** *Stokes,* 102.

Native, Brit., 1-7. August.

Very common in wet places.

279. **H. humifusum.** *Linn.*, 98.
(Trailing St. John's Wort).

Native, Brit., 2, 6. July, II.

Noted chiefly on the sand tract, Holme-on-Spalding-Moor, but also sparingly east of the Wolds at Birkhill, near Cottingham.*

281. **H. pulchrum.** *Linn.*, 111.
(Small St. John's Wort).

Native, Brit., 1-7. July, IV.

Not very frequent. Holme-on-Spalding-Moor.* Withernwick, on an old terrace of Lambwath Stream. Birkhill Wood, near Cottingham.*

282. **H. hirsutum.** *Linn.*, 89.

Native, Brit., 1, 4, 6, 7. July, IV.

Banks of River Derwent (B.), near Howden (J.B.). Driffield and Brandesburton.* East Dale, South Cave (C.W.).

284. **H. elodes.** *Linn.*, 61.
(Marsh St. John's Wort).

Native, Eng., 7. August.

Rare, Langwith and Heslington, 1810, W. Middleton. Sp. in Herbm. York Museum. Still abundant at Skipwith Common, where it was known to the late H. Ibbotson in 1840. Seen by the writer and others on Skipwith Common in September, 1900.

MALVACEÆ.

289. **Malva moschata.** *Linn.*, 88.

(Musk Mallow).

Native, Brit., 2, 6, 7. August, I.

Not common. Road-side near Sancton.* Riccal (W.N.C.). Kelsey Hill, Holderness. Near Fore-dike, between Sutton and River Hull.

290. **M. sylvestris.** *Linn.*, 96.

(Common Mallow. Marsh Mallow. Fruit = "cheeses," E.R.D.).

Native, Brit., 1-7. Summer.

Waste road-sides, usually near cultivation.

291. **M. rotundifolia.** *Linn.*, 83.

(Dwarf Mallow).

Native, Eng., 1-7. Summer.

Waste ground and on rubbish heaps. Common.

293. ***M. pusilla.*** *Sm.*

Alien.

Waste ground near docks, Hull.

294. ***M. parviflora.*** *Linn.*

Alien.

Waste ground near docks, Hull.

M. Cretica. *Linn.*

Alien.

Waste ground near docks, Hull.

M. borealis.

Alien.

Waste ground near docks, Hull.

TILIACEÆ.

296. ***Tilia vulgaris.*** *Hayne.*

(Common Lime).

Alien. June, IV.

Commonly planted, and grows well. Fine trees near Etton.

297. **T. cordata.** *Mill.*, 18.

(Small-leaved Lime).

Denizen, Eng. August, I.

Near Rise Park (C.W.).

LINEÆ.

298. **Radiola linoides.** *Roth.*, 84.

Native, Brit., 6-7. August.

Not common; on damp sandy places. Houghton Moor (J.J.M.). Skipwith Common, September, 1900.*

299. **Linum catharticum.** *Linn.*, 112.

(Purging Flax).

Native, Brit., 1-7. June, IV.

Common on Wolds. Sparingly in Holderness, and then only on gravelly places.

300. **L. perenne.** *Linn.*, 15.

Native, Ger., 3, 4.

On Wolds. Beverley (Dr. Hull). Driffield Wold (M.H.).*

302. ***L. usitatissimum.*** *Linn.*

(Flax, Line).

Alien.

Casually on soft refuse heaps. Cultivated extensively near Market Weighton.

GERANIACEÆ.

303. **Geranium sanguineum.** *Linn.*, 63.

(Blood Geranium Cranesbill).

Native, Brit., 5. June, IV.

Only on the cliffs between Filey and Flamboro'; first announced by W. Whitwell, 1877, and confirmed since by J.J.M. Near Speeton, 1901 (C.W.).

304. ***G. striatum.*** *Linn.*

Alien.

Garden escape, road-side, Burton Constable.*

305. ***G. nodosum.*** *Linn.*

Alien.

Naturalised in a wood at Londesbro' (H. Ibbotson, B. sup.).

306. ***G. phæum.*** *Linn.*

(Dusky Cranesbill).

Alien, Ger., 1, 4, 7. June, IV.

Long well established, and quite worthy of "denizen" citizenship. Wansford and Emswell.* Near Driffield (W.H.B.). At Londesbro' (B.). Fulford (B. sup.), now extinct here (W.N.C.).

308. **G. pratense.** *Linn.*

(Blue Meadow Cranesbill).

Native, Brit., 1, 2, 7. June, III.

Uncommon in Holderness. Hornsea road-sides and Birkhill Wood.* Fulford Ings, abundant, Naburn and Barlby, 1877 (W.W.).

309. **G. pyrenaicum.** *Burm. fil.*, 58.

Native, Eng., 2, 3, 6. June, II.

Frequent. Market Weighton (J.J.M.). Sproatley (J.F.R., 1898). Londesbro' (B.). Langton Wold (Y.N.U.). Near North Cave, 1899.* Near Cottingham, 1900.* Specimens in Herbm. York Museum, by W. Middleton, from Kirkham Abbey, 1810 (H.J.W.).

310. **Geranium molle.** *Linn.*, 112.
(Dove's-foot Cranesbill).

Native, Brit., 1-7. May to Autumn.
Very common in stubble and fallow fields.

311. **G. pusillum.** *Linn.*, 79.

Native, Eng., 2, 4. Summer.
Frequent. Hornsea, Hessle, and on the dock wastes, Hull.

313. **G. dissectum.** *Linn.*, 110.

Native, Brit., 1-7. Summer.
Frequent in all the districts.

314. **G. columbinum.** *Linn.*, 76.

Native, Eng., 1.
Rather rare. Driffield (Y.N.U.). Near Cottingham.*

315. **G. lucidum.** *Linn.*, 93.

Native, Brit., 3, 5.
Near Cottingham.* Kirkham Abbey (B.). Londesbro' (B.).

316. **G. Robertianum.** *Linn.*, 111.
(Herb. Robert).

Native, Brit., 1-7.
Abundant in damp hedgerows.

317. **Erodium cicutarium.** *L'Hérit.*, 104.
(Stork's Bill).

Native, Brit., 1-7.
Sandy places along the coast at Spurn. Inland at Brough and Skipwith Common.

318. **Erodium moschatum.** *L'Hérit.*, 11.

(Musky Stork's-bill).

Denizen, Atlantic, 1, 2, 6. July, IV.

Barmby Moor (B.). Spurn (Y.N.U.). Aldbro', Holderness (T.P.), 1901.

320. **Oxalis Acetosella.** *Linn.*, 109.

(Wood Sorrel).

Native, Brit., 1-7. May, I.

Fairly common in hedgerows and copses near Cottingham, Beverley, Swine, &c. Langwith, near York, O. A. Moore, 1840.

323. **Impatiens Noli-tangere.** *Linn.*, 24.

(Touch-me-not).

Casual.

Market Weighton (B.). Unknown now.

325. ***I. parviflora.*** *DC.*

Alien.

Common in or near Hull gardens as a weed of cultivation.

ILICINEÆ.

326. **Ilex Aquifolium.** *Linn.*, 105.

(Holly-tree).

Native, Brit., 1-7. May, IV.

Common in hedges and copses in all the districts.

CELASTRINEÆ.

327. **Euonymus europæus.** *Linn.*, 74.

(Spindle-tree).

Native, Eng., 1, 2, 3. June, II.

Hedges near Anlaby and Cottingham.* York Dale, Sledmere (Y.N.U. and J.T.H.).

RHAMNEÆ.

328. **Rhamnus catharticus.** *Linn.*, 57.
(Purging Buckthorn).

Native, Eng., 4, 6. June, II.
Uncommon. Mains Wood, near Everingham.* In a lane near South Cave on the oolitic outcrop.*

329. **R. Frangula.** *Linn.*, 63.
(Alder Buckthorn).

Native, Eng., 3, 7. June, II.
Frequent. Lanes near Cottingham.* Langwith Wood, 1866 (W.W.). Skipwith (H.J.W.), 1895.

SAPINDACEÆ.

330. **Acer Pseudo-platanus.** *Linn.*
(Sycamore).

Denizen, Eng., 1-7. May, III.
Common.

331. **Acer campestre.** *Linn.*, 62.
(Common Maple).

Native, Eng., 1-7. June, I.
Common in hedges, as at Cottingham, Swine, and Skirlaugh,

Æsculus Hippocastanum.
(Horse-chestnut).

Denizen. May, III.
Common and self-sown in many places; grows well in the Riding.

LEGUMINOSÆ.

333. **Genista anglica.** *Linn.*, 86.
(Needle Greenweed, or Petty Whin).

Native, Brit., 1-7. July, III.
Not common. Allerthorpe Common (Y.N.U.). Near Holme River Head (J.J.M.).

335. **Genista tinctoria.** *Linn.*, 76.

(Dyers' Greenweed)

Native, Eng., 1, 2, 6, 7. July, II.

Not common. North Cave*; Heslington (B.); Sunderlandwick (J.T.H.); near Foredike (drain), Sutton-in-Holderness.*

336. **Ulex europæus.** *Linn.*, 112.

(Furze or Gorse).

Native, Brit., 1-7. May, III.

Common where cultivation does not prevail, occasionally by road-sides and in pastures on the high Wolds. But for the preservation and hunting of the fox, furze would soon be extinct.

339. **Cytisus scoparius.** *Link.*, 109.

(Common Broom, E.R.D. "Ling").

Native Brit., 1-7. June.

Frequent. Swine, Grimston Garth, &c.

340. **Ononis repens.** *Linn.*, 100.

(Restharrow).

Native, Brit., 1-7. July.

Common, especially in chalky and gravelly situations. Var. inermis, Lange. Bank of River Ouse, near Barlby (C.W.).*

341. **O. spinosa.** *Linn.*, 71.

(Spiny Restharrow).

Native, Brit., 2, 3, 4. July.

Occasional. North Ferriby, near Humber. North Grimston, and on gravel terraces, Hornsea Mere.*

Trigonella ramosa.

Alien.

Hull Docks, where there are also three other species of *Trigonella.*

344. ***Medicago sativa.*** *Linn.*

(Lucerne).

Alien.

Escaped from cultivation on the chalk, and Heslington, Bridlington, Wolds (B.), Staddlethorpe (C.W.). Near Howden (J.B.).

346. **M. falcata.** *Linn.*, 5.

(Yellow Medick).

Colonist.

Near Brough (C.W.), introduced with seed.

347. **M. lupulina.** *Linn.*, 105.

(Medick).

Native, Brit., 1-7. Summer.

Very common. On Wolds. Willerby old chalk pit, and in "seed" fields, South Cave.

348. **M. denticulata.** *Willd.*, 20.

Colonist, Eng.

Occasional escape near Hull, and cornfields at Wawne.*

M. arabica. *Huds.*, 43.

Colonist.

On the Dock wastes.

351. **Melilotus officinalis.** *Lam.*, 72.

(Common Melilot).

Colonist, Eng., 1-7. Summer.

Frequent. Hessle. Kelsey Hill.

352. ***M. alba.*** *Desr.*, 40.

Alien.

In cultivated fields near Hull, and in the Docks, Hull.

354. ***M. indica.*** *All.*

Alien.

Waste places. Allerthorpe and Welton (C.W.). Sutton-on-Hull (C.W.). Near the Docks, Hull.

356. **Trifolium pratense.** *Linn.*, 112.
(Red Clover).

Native, Brit., 1-7. July, II.

Common in meadows.

357. **T. medium.** *Linn.*, 106.

Native, Brit., 1-7. July, II.

In shrubby, uncultivated places near Withernwick. Kelsey Hill and Marton.*

360. ***T. incarnatum.*** *Linn.*
(Crimson Clover).

Casual. June, III.

In cornfields near Howden (J.B.). Market Weighton (J.J.M.).

363. **T. arvense.** *Linn.*, 94.
(Hare's-foot Clover).

Native, Brit., 2, 6, 7. Aug., II.

In dry situations. North Cave, Heslington Fields (B.). Var. prostratum, Lange, on Spurn Head, with T. scabrum (J.F.R.). Skipwith Common (W.N.C.). Everingham Station (C.W.).

365. **T. striatum.** *Linn.*, 74.

Native, Eng., 6. July, II.

Market Weighton (J.J.M., sp. J.F.R.).

366. **T. scabrum.** *Linn.*, 49.
(Rough rigid Trefoil).

Native, Eng. Aug., II.

On Spurn Head, with T. arvense, 1888.*

370. ***T. hybridum.*** *Linn.*
(Alsike).

Alien. June, III.

Common in pastures.

371. **Trifolium repens.** *Linn.*, 112.
(White Clover).

Native, Brit., 1-7. May, III.

Most abundant on Wolds.

372. **T. fragiferum.** *Linn.*, 72.
(Strawberry Trefoil).

Native, Eng., 2, 6. June, IV.

Vicinity of the sea coast near Hull (C.C. Babington). Very common. East of Hull, near River Humber,* Market Weighton, near Canal.

375. **T. procumbens.** *Linn.*, 105.
(Hop Trefoil).

Native, Brit., 1-7. Aug. I.

Frequent, but not so much as T. dubium.

376. **T. dubium.** *Sibth.*, 109.

Native, Eng., 1-7. May, III.

Very common.

377. **T. filiforme.** *Linn.*, 64.

Native, Eng., 2. June, II.

Rare. In dry places, *e.g.*, on tumuli, as near Cottingham.* (*fide*, Mr. A. Bennett).

378. **Anthyllis Vulneraria.** *Linn.*, 105.
(Kidney Vetch, or Ladies' Fingers).

Native, Brit., 1-7. July, II.

Common on railway embankments, and on other gravelly places. A form with quite fleshy leaves on chalk at Flambro'.*

379. **Lotus corniculatus.** *Linn.*, 112.
(Bird's-foot Trefoil, "Ladies' Fingers," "Cheescake Flower"—from its colour).

Native, Brit., 1-7. July, IV.

Common. Var. crassifolius, Pers., at Hornsea and Withernsea; var. villosus, Ser., at Spurn (C.W.).*

380. **Lotus tenuis.** *Waldst. and Kit.*, 66.

Native, Brit., 3, 4. June, IV.

Humber foreshore, near Hessle* (C.W.), 1897. Field at Kiplingcoates, H. B. Mosier, 1874 (W.W.).

381. **L. uliginosus.** *Schkuhr*, 100.
(L. major, *syn.*).

Native, Brit., 1-7. July, II.

Common in damp places. Pulfin Bog.

385. **Astragalus danicus.** *Retz.*, 41.
(Purple Mountain Milk Vetch).

Native, Ger., 1-3. June, I.

On Langton Wold (B.). Specimen in hbm. (M.H.).* Plentiful in Coneygarth, Brandesburton, where it was first noticed June, '99, by Mr. R. H. Philip, in company with the author and other members of the Hull Scientific and Field Naturalists' Club.

386. **A. glycyphyllos.** *Linn.*, 64.
(Wild Liquorice).

Native, Ger., 6. July II.

On gravelly roadsides near Elloughton, Brough, where it has long been known.

389. **Ornithopus perpusillus.** *Linn.*, 83.
(Bird's Foot).

Native, Brit., 6, 7. June, III.

A typical sand-loving plant, frequent on the tract near Holme-on-Spalding-Moor, at Market Weighton (J.J.M.),* and Skipwith Common,* 1899.

392. **Onobrychis viciæfolia.** *Scop.*, 30.
(Sainfoin).

Colonist, Eng., 3. Aug., IV.

On the Wolds near Nafferton.*

393. **Vicia hirsuta.** *Gray*, 109.
(Wild Tare).

Colonist, Brit., 1-7. Summer.
Common, especially in dry places.

394. **V. gemella.** *Crantz*, 74.

Colonist, Eng., 2. May, IV.
Marfleet, near Hull,* and at Spurn (Y.N.U.).

396. **V Cracca.** *Linn.*, 112.
(Tufted Vetch).

Native, Brit., 1-7. July, II.
Only sparingly in Holderness, near Withernwick. Common in the two more western divisions; near Driffield (J.T.H.).

398. **V. sylvatica.** *Linn.*, 78.
(Wood Vetch).

Native, Brit., 4, 5. July, IV.
Rare; found in Raywell Woods, 1888.* Bushy banks of Speeton Beck, Aug., 1901 (C.W.).

399. **V. sepium.** *Linn.*, 110.
(Bush Vetch).

Native, Brit., 1-7. May and June.
Very common in grassy places.

403. ***V. sativa.*** *Linn.*
(Common Vetch Fodder—"Lintils").

Alien. May, III.
In cultivated places.

404. **V. angustifolia.** *Linn.*, 92.
(Common Narrow-leaved Vetch).

Native, Brit., 1-7. Summer.
Frequent. Heslington Fields, Hessle, Skipwith Common.

405. **Vicia lathyroides.** *Linn.*, 54.
(Spring Vetch).

Native, Brit., 2, 6. June, I.

Not common. Market Weighton (J.J.M.); on Kilnsea Warren (A. E. Lynn, 1898); near Beverley (B.).

407. **Lathyrus Aphaca.** *Linn.*, 27.

Denizen, Eng., 2. August.

Hull Docks, &c., in company of many aliens.

408. **L. Nissolia.** *Linn.*, 40.

Native, Eng. Incog.

By Mrs. Wharton, near Sigglesthorne, O.B.G. (B. sup.), not seen of late.

409. ***L. hirsutus.*** *Linn.*, 2.

Alien.

Hull Docks.

411. **L. pratensis.** *Linn.*, 112.
(Vetchling, Meadow Vetch).

Native, Brit., 1-7. July, III.

Common in grassy places.

414. **L. sylvestris.** *Linn.*, 62.

Native, Eng. Incog.

Near Beverley (Dr. Hull), probably an introduction, if it really existed as an escape.

415. **L. palustris.** *Linn.*, 20.
(Blue Marsh Vetchling).

Native, Eng., 1. July, II.

Very rare. Formerly Heslington Fields, but now extinct, and near Beverley (B.), in the last situation R.T. says "abundantly." Near Hull, P.W.W. in O.B.G.; now extinct. The only place where this species still grows is

in marshy ground by River Hull, near Arram, where it was discovered by the author, 7th July, 1900.* Its companions in the marsh were *Lysimachia vulgaris*, *Carex paradoxa*, *Calamagrostis lanceolata*, and *Lastræa Thelypteris*.

417. **Lathyrus montanus.** *Bernh.*, 107.
(Tuberous Bitter Vetch).

Native, Brit., 4, 6, July, III.
Not common. Risby Park,* and near Howden (J.B.).

ROSACEÆ.

419. **Prunus spinosa.** *Linn.*, 108.
(Blackthorn, Sloe).

Native, Brit., 1-7. May, I.
Very common.

420. **P. insititia.** *Huds.*, 65.
(Bullace).

Native, Brit., 1-7. May, III.
Fairly frequent near Stoneferry and Swine.

421. ***P. domestica.*** *Linn.*
(Wild Plum, Fruit, E.R.D. "Hoss-gogs").

Denizen, Brit., 1-7. May, II.
Frequent in hedges near villages.

422. **P. Avium.** *Linn.*, 97.
(Wild Cherry or Gean).

Denizen, Eng., 3, 4. May, II.
Copses and woods on Wolds, as near South Cave.

423. **P. Cerasus.** *Linn.*, 33.
(Cherry).

Denizen, Eng., 1-7. May, II.
Near villages; escape.

424. **Prunus Padus.** *Linn.*, 68.
(Bird Cherry).

Native, Scot., 1-7. May, IV.

Very uncommon in Holderness, and doubtfully wild in the two eastern divisions; often, however, in shrubberies and gardens. It grows to a fine tree in our cemeteries.

426. **Spiræa Ulmaria.** *Linn.*, 112.
(Meadow Sweet—E.R.D. "Bittersweet").

Native, Brit., 1-7. July, III.

Very common in damp hedgerows.

427. **S. Filipendula.** *Linn.*, 63.
(Dropwort).

Native, Eng., 1, 3, 4. July, III.

Distinctly a dry-loving plant, and fairly common, as at Wold-dale, Spout-hill, Drewton Dale, and Langton Wold. It is also on the gravelly mounds (morainic) of Holderness, as at Brandesburton.* Settrington and Newstead Norton (M.B.S.).

428. **Rubus idæus.** *Linn.*, 110.
(Raspberry, Wild Rasp).

Native, Brit., 1-7. June, II.

Copses and woods. Houghton Moor, Cottingham, and bushy places on the Holderness gravels, as at Brandesburton.

432. **R. plicatus.** *W. and N.*, 45.

Native, Eng., 6, 7. July, II.

Langwith lane (B. sup.); Skipwith Common (H.J.W.), first record. Var. hemistemon (P. J. Muell), 5, at Skipwith Common (C.W.); fide Rev. W. M. Rogers.

442. **R. carpinifolius.** *W. and N.*, 28.

Native, Eng., 7. July, III.

Skipwith Common (H.J.W., 1885; first record for E.R.).

444. **Rubus Lindleianus.** *Lees*, 64.

Native, Eng., IV. July, II.
Newbald (H.F.P.).

447. **R. rhamnifolius.** *W. and N.* (*sp. collect.*), 60.

Native, Eng., 6-7. July, II.
Langwith and Skipwith (H.J.W.).

449. **R. pulcherrimus.** *Neum.*, 49.

Native, Eng., 7. July, II.
Heslington and Skipwith (H.J.W.), 1883.

453. **R. villicaulis.** (*Sp. collect.*), 53.

Native, Eng., 7. July, II.
Var. b. Selmeri (Lindeb.), 47, Langwith (H.J.W., 1885, first record, fide W.M.R.). Var. d. calvatus, Blox., 5, Langwith (H.J.W., 1883, new record).

459. **R. rusticanus.** *Merc.*, 63.
(E.R.D., "Michaelmas Bramble,").

Nat., Eng., 1-7. July, IV.
The commonest bramble in Holderness, also common on the sandy districts. Langwith (H.J.W.).

461. **R. thyrsoideus.** *Wimm.*

Native, Eng., 2. July, IV.
Kelsey Hill, Holderness, July, 1902, C.W., fide Rev. E. Moyle Rogers.

463. **R. macrophyllus.** (*Sp. collect.*), 62.

Native, Eng., 6, 7. July, IV.
Holme-on-Spalding-Moor (H.F.P.). Var. b. Schlechtendalii (Weihe), 31, Skipwith (H.J.W.), 1885.

472. **Rubus leucostachys.** *Schleich.*, 65.

Native, Eng., 7. July, IV.

Skipwith (H.J.W., 1885), first record for v.c. 61, fide Rev. W. M. Rogers.

476. **R. mucronatus.** *Blox*, 52.

Native, Local, 7. July, IV.

Skipwith (H.J.W.), 1883, new for v.c., 61.

482. **R. Leyanus.** *Rogers*, 15.

Native, Eng., 3. July, IV.

Between Sewerby and Bridlington, Rev. H. Fisher, 1897, fide Rev. W. M. Rogers.

483. **R. radula.** (*Sp. collect.*), 63.

Native, Eng., 2. July, IV.

Near Marfleet, Hull (C.W.).

503. **R. rosaceus.** (*Sp. collect.*), 51.

Native, Eng., 7. July, IV.

Langwith (H.J.W.), first record for the vice county.

506. **R. Koehleri.** (*Sp. collect.*), 70.

Native, Eng., 6, 7. July, IV.

Heslington Lane (G.W.). Var. pallidus, Bab. frequent in copses. Swine*; Bessingdale Wood*; Skipwith Common (H.J.W., 1883).

509. **R. fusco-ater.** *Weihe.*, 2.

Native, Eng., 7. July.

Heslington Lane (G.W.).

522. **R. dumetorum.** *W. and N.*, 59.

Native, Eng., 4, 7. July, IV.

Skipwith,* var. b. diversifolius, 51. Chalk-pit near Willerby (C.W.).

523. **Rubus corylifolius.** *Sm.*, 74.
(Hazel-leaved Bramble).

Native, Eng., 1-7. July, III.

Very common in chalk-pits near Hessle and Willerby,* var. a. sablustris (Lees), near Sutton-on-Hull (C.W.),* var. b. cyclophyllus, Lindeb. chalk-pit near Willerby (C.W.),* also at Kelsey Hill, Holderness, August, 1901 (C.W.).*

525. **R. cæsius.** *Linn.*, 62.
(Dewberry).

Native, Eng., 1-7. June, III.

Common and fruiting richly. The first of the brambles to ripen its fruit. Several puzzling varieties or hybrids have been noted in Holderness. Var. aquaticus, W. and N., near Cottingham and Swine. One of the commonest Rubi in East Yorks., but its forms have not yet been thoroughly determined.

529. **Geum urbanum.** *Linn.*, 107.
(Herb Bennet).

Native, Brit., 1-7. June, IV.

Very common in hedge bottoms.

530. **G. rivale.** *Linn.*, 93.
(Avens).

Native, Brit., 1-7. June, IV.

Very frequent, and often showing sport forms, as foliage leaves for sepals, and proliferous forms (*sps.* Hbm. J.F.R.). Hybd. urbanum (=intermedium, Ehrh.). This hybrid is also frequent near Cottingham, &c.*

531. **Fragaria vesca.** *Linn.*, 111.
(Wild Strawberry).

Native, Brit., 1-7. June.

Not very common in Holderness; common on the Wolds.

532. ***F. elatior.*** *Ehrh.*

Alien. June, I.

In young plantations, Brantingham (C.W.).

533. ***Potentilla norvegica***. *Linn.*

Alien.

Frequent on the Dock Wastes, Hull.

535. **Potentilla Fragariastrum.** *Ehrh.*, 106.

(Barren Strawberry).

Native, Brit., 1-7. March, III.

A very common early spring plant in grassy lanes and banks.

538. **P. silvestris.** *Neck.*, 112.

(Tormentil).

Native, Brit., 1-7. June, III.

In peaty places, near Cottingham, Brandesburton, &c.

539. **P. procumbens.** *Sibth.*, 78.

Native, Brit., 6, 7. June, III.

Houghton Woods,* Allerthorpe, and Skipwith Common.

540. **P. reptans.** *Linn.*, 95.

(Creeping Cinquefoil).

Native, Eng., 1-7. July.

Common. The form with double flowers near Market Weighton (J.J.M.).*

541. **P. Anserina.** *Linn.*, 112.

(Silverweed).

Native, Brit., 1-7. June, II.

Every roadside.

543. **P. argentea.** *Linn.*, 87.

Native, Eng., 2. July, I.

Only known with us amongst the Dock Waste plants.*

545. **Potentilla palustris.** *Scop.*, 99.
(Purple Marsh Cinquefoil).

Native, Brit., 1, 2, 6, 7. June, IV.

Lowthorpe, Hornsea Mere, and Pulfin Bend. Driffield,* near River Hull, Skipwith Common (W.N.C.), near Howden (J.B.), Heslington, and near York, 1820 (W. Middleton, *sp.* in Herbm. York Mus.).

547. **Alchemilla arvensis.** *Scop.*, 111.
(Parsley-Piert).

Native, Brit., 1-7. Summer.

In cultivated fields, common.

548. **A. vulgaris.** *Linn.*, 107.
(Common Lady's Mantle).

Native, Brit., 1-7. May, III.

Scarce in Holderness, but near Cottingham, on the Wolds at Risby and Hotham Park. Always poor and dwarfed in the E.R. when compared with specimens from higher ground and farther north. Var. filicaulis (C.W.), near Selby (W.N.C.), and Howden (J.B.).

550. **A. argentea.** *Lam.*, 3.

Scot., 6.

Once in Houghton Wood, not far from the *Goodyera* station, probably introduced as a garden plant and then escaped. Sp. in Hbm. J.J.M.

551. **Agrimonia Eupatoria.** *Linn.*, 105.
(Agrimony).

Native, Brit., 1-7. July, I.

Sparingly on the chalk. Skidby, Willerby, and N. Cave,* near Selby (W.N.C.), and Howden, J.B.

553. **Poterium Sanguisorba.** *Linn.*, 74.
(Salad Burnet).

Native, Eng., 1, 2, 3, 4. May, III.

Chiefly on chalk, and very common; also on gravels near the sea at Atwick,* and on the gravel hills of Holderness at Brandesburton and Hornsea.*

555. **Poterium officinale.** *Hook. fil.*, 64.
(Great Burnet).

Native, Inter., 1-7. July, I.

Not common. Near Hedon Drain (T.P.), and in damp fields at Elloughton, Hotham Park, Newbald,* Driffield (J.T.H.), Heslington, 1803, W. Middleton (Sp. in Herb., York Museum).

556. **Rosa pimpinellifolia.** *Linn.*, 94.
(Burnet-rose).

Native, Brit., 5. July, II.

Rather rare; f. spinosissima Linn, only on the coast of Filey Bay, near Hunmanby, and also nearer Speeton (C.W., Aug., 1901).

559. **R. mollis.** *Sm.*, 71.
(Apple Rose).

Native, Brit., 1-7. July, II.

Sparingly scattered throughout all the divisions. Langwith (H.J.W., 1883).

560. **R. tomentosa.** *Sm.*, 110.

Native, Brit., 1-7. July, II.

Not very common. Banks of Derwent (B.). Leckonfield.* Var. globosa, Hilston (G.W.). Langwith (H.J.W., 1883).

561. **R. rubiginosa.** *Linn.*, 62.
(Sweet Briar).

Denizen, Eng., 2. July, II.

Spurn (Y.N.U.).

564. **R. obtusifolia.** *Desv.*, 23.

Native, Brit., 1-5. July, II.

Var. tomentella (Leman) at Claxton (G.W.). Leckonfield (C.W.).

565. **Rosa canina.** *Linn.*, 112.
(Wild Dog Rose).
(Fruits = "Dog-jumps = Hips," E.R.D.).

Native, Brit., 1-7. July, II.

Equally as common in all the East Riding division as Rosa arvensis, and the following varieties have been definitely determined:— Vars. dumalis Bechst., dumetorum Thuill, and arvatica Baker; the last three at Leckonfield, fide Rev. W. Moyle Rogers (C.W.); urbica (Leman) from Ganstead, Holderness (C.W., fide Rev. W. M. R.). The varieties dumalis, Bechst.; urbica, Leman; dumetorum, Thuill; subcristata, Baker; and Bakeri, Desegh., all at Langwith (H.J.W., 1883 or 1885). Vars. arvatica, Baker and Watsoni, Baker, at Skipwith (H.J.W., 1883). Var tomentella, Leman, at Heslington (H.J.W., 1883).

568. **R. arvensis.** *Huds.*, 69.
(Trailing Dog Rose).

Native, Eng., 1-7. July, II.

Common in Holderness, and on the chalk as near Cottingham, Swine, Willerby, &c. The vars. not yet made out.

569. ***R. rubella.*** *Sm.*, 1.
(Red-fruited Dwarf Rose).

Alien, Incognit.

Near Sutton on Wolds (B.). Not confirmed of late.

577. **Pyrus aria.** *Ehrh.*, 50.
(White Beam Tree).

Denizen, Eng., 1-7. July, III.

In copses, commonly planted and thence self-grown. In Holderness and on the Wolds. At Cottingham, Willerby. Var. b. rupicola, Syme, at Cliff Common (H.F.P. in Bot. Rec. Club Report).

580. ***P. intermedia.*** *Ehrh.*

Alien.

At North Ferriby.

583. **Pyrus Aucuparia.** *Ehrh.*, 108.

(Mountain Ash).

Native, Brit., 1-7. July III.

Frequent in woods and copses. Benningholme in Holderness* and in all the divisions.

584. **P. communis.** *Linn.*, 49.

(Wild Pear).

Denizen, Eng., 6-7. May, I.

In hedge near York (B.) (H.S.) an escape. Hedge North Cave, 1899.*

586. **P. Malus.** *Linn.*, 88.

(Crab-Apple Tree).

Native, Eng., 1-7. May, III.

Often in hedges. The var. acerba, DC., common. Var. mitis frequent in the neighbourhood of South Dalton.*

587. ***P. germanica.*** *Hook. fil.*

(Medlar).

Alien.

Introduced in shrubberies and gardens, Hull and Anlaby, whence Mr. J. Porter has obtained ripe fruit.

588. **Cratægus Oxyacantha.** *Linn.*, 111.

(Hawthorn).

(Flowers="May." Fruits="Cat-haws," E.R.D.).

Native, Brit., 1-7. June, I.

Nowhere more luxuriant than in the East Riding. Many large old specimens near villages, or on the sites of former villages, *e.g.*, near Hedon and Meaux Abbey. A rosy-flowered variety frequent near Marfleet, Hull. Var. monogyna Jacq., near Waxholme in Holderness (C.W.).

SAXIFRAGEÆ.

595. ***Saxifraga umbrosa.*** *Linn.*, 1.
(London Pride).

Alien.

Londesbro' (B.), where of course it has been introduced with many other things that should scarcely have a place in a flora of wild plants.

598. **S. tridactylites.** *Linn.*, 81.
(Rue-leaved Saxifrage).

Native, Brit., 1-7. April, IV.

Very common on chalky and gravelly places, flowering in the latter with *Erophila vulgaris* and *Cerastium semidecandrum.* St. Austin's Stone, Drewton Dale,* on the "Fairy Stones," in Burdale,* and on mud-topped walls in all the drier districts. Hotham and Newbald.* Heslington (B.). Old house tops near Hull (G.N.).

601. **S. granulata.** *Linn.*, 78.
(White Meadow Saxifrage).

Native, Brit., 1, 2, 3, 6, 7. June, I.

Locally abundant in Derwent-land, and in gravelly places in Holderness as Kelsey Hill,* and recorded also near Brough (C.W.),* North Cave,* Lowthorpe, and Fimber (M.B.S.).

608. **Chrysosplenium oppositifolium.** *Linn.*, 107.
(Golden Saxifrage).

Native, Brit., 2-7. May, II.

Uncommon generally but still fairly plentiful on dyke-beck-sides near Cottingham,* where it was known in the 'sixties (G.N.) and (A.S.). Langwith, 1810, W. Middleton, sp. in York Museum.

609. **C. alternifolium.** *Linn.*, 70.

Native, Brit., 5. May.

Rare, there only being one place recorded for it—Settrington (M.B.S.).

610. **Parnassia palustris.** *Linn.*, 82.

Native, Scot., 1-7. August, III.

Common in marshy places over all the divisions. In wet clayey places. Speeton and Bempton Cliffs.* Bell Mills, Driffield (J.T.H.). Cottingham Common (G.N.). Brough (C.W.),* Newbald Springs (near chalk) where it is a magnificent sight in mid or late August. Drewton Dale, Allerthorpe Common, Heslington Fields, and Kirkham (B.).

611. ***Ribes Grossularia.*** *Linn.*

(Gooseberry. "Goosegogs," E.R.D.).

Alien. May, II.

Frequently in hedges, always bird-sown from gardens.

612. **R. alpinum,** *Linn.*,

Denizen, Inter., 1-7. May, II.

In woods near Welton. Londesboro' (B). Very probably planted at first and then self sown.

613. **R. rubrum.** *Linn.*

(Red Currant).

Denizen, Inter., 1-7. May, III.

Like the preceding a common escape in hedges.

614. **R. nigrum.** *Linn.*

(Black Currant).

Denizen, Inter., 1-7. May, III.

The above four being so admirably adapted for dispersal by birds, there is little doubt about their denizenship.

CRASSULACEÆ.

618. **Sedum Telephium.** *Linn.*, 75.

(Orpine, or Livelong).

Native, Eng., 7.

Heslington fields and Fulford (B.). Confirmed by H.S.

623. **Sedum acre.** *Linn.*, 107.

(Biting Stone-crop, or Wall-pepper).

Native, Brit., 1-7. July, I.

On old walls and roofs; frequent also on gravelly chalk fields. Weedley near South Cave (C.W.).* Old village walls in Derwentland (M.B.S.). Flamboro' Cliffs (G.N.). Except for the above-named species of Saxifraga and Crassula, these genera are poorly represented in the E. Riding.

628. ***Sempervivum tectorum.*** *Linn.*

(House-leek. "Haslock," E.R.D.).

Alien.

Often on old wall tops and thatch in villages; a big crop on an old cottage in Rudstone village.

DROSERACEÆ.

629. **Drosera rotundifolia.** *Linn.*, 109.

(Round-leaved Sundew).

Native, Brit., 5, 6, 7. July, IV.

Not common in the East Riding. Skipwith Common (W.N.C. and H.J.W.). Near Market Weighton (J.J.M.).

630. **D. anglica.** *Huds.*, 55.

(Great Sundew).

Native, Scot., 5.

Scagglethorpe, now extinct (M.B.S., who has specimens formerly gathered in this station).

631. **D. intermedia.** *Hayne.*, 53.

(Long-leaved Sundew).

Native, Eng., 6, 7. July, IV.

Near Market Weighton (J.J.M.). Skipwith (W.N.C. and H.J.W., 1883). Seen by the writer and Mr. C. Waterfall in the years 1899 and 1900 in the latter situation.

HALORAGEÆ.

632. **Hippuris vulgaris.** *Linn.*, 90.
(Mare's Tail).

Native, Brit., 1, 2, 5, 6, 7. June, I.

Very common in all open drains of Holderness, Hornsea Mere, &c. In the Derwent and at Londesboro' (B.). Welham and Beck Mill stream, near Malton (M.B.S.).

633. **Myriophyllum verticillatum.** *Linn.*, 49.

Native, Eng., 1, 2, 6. June, IV.

Uncommon, but at Marton near Burton Constable,* ditches near Beverley (R.T.), Leckonfield moat, "delphs" near Staddlethorpe (C.W.).

634. **M. spicatum.** *Linn.*, 78.
(Milfoil).

Native, Brit., 1, 2, 5, 6, 7. June, I.

In stagnant ponds, drains, and Dykes in Holderness, and near Selby (W.N.C.). Hornsea Mere (C.W.). Not so common as the following.

635. **M. alterniflorum.** *DC.*, 80.

Native, Brit., 1, 2. June, I.

Kelsey gravel pits, near Keyingham.* Dykes near Hull, "very common" (Y.N.U.).

636. **Callitriche verna.** *Linn.*,
(Water Starwort).

Native, Brit., 1, 7. May, III.

In stagnant shallow water of most dykes.

637. **C. stagnalis.** *Scop.*, 93.
(Mud Starwort).

Native, Brit., 1-7. June.

The common form.

639. **Callitriche hamulata.** *Kuetz,* .

(Linear-leaved Starwort).

Native, Brit., 1-7. June.

As common, or commoner than the above-named species, and gets most luxuriant in flowing water.

640. **C. obtusangula.** *Le Gall,* 27.

Native, Eng., 1.

Very rare. Grimston in Holderness (G.W.).

LYTHRARIEÆ.

643. **Peplis Portula.** *Linn.*, 98.

(Water Purslane).

Native, Brit., 6, 7. July, IV.

Rare. Wet places in Houghton Woods (J.J.M., 1892), and on Skipwith Common, 1883 (H.J.W.).

644. **Lythrum Salicaria.** *Linn.*, 92.

(Purple Loose-strife).

Native, Eng., 1, 2, 5, 6, 7. Aug., II.

Plentiful in Holderness and Derwentland near dykes, and in marshy places near R. Hull; very beautiful when in flower *en masse.**

ONAGRARIEÆ.

646. **Epilobium angustifolium.** *Linn.*, 96.

(Rose bay Willow Herb).

Native, Brit., 3, 4, 6, 7. Aug., I.

Houghton Woods; near South Cave.* Yorkdale and Sledmere Woods (M.B.S.). Elloughton Vale (C.W.). Skipwith Common.*

647. **Epilobium hirsutum.** *Linn.*, 96.
(Great Hairy Willow Herb).

Native, Eng., 1-7. Aug., I.
Dykes. Common in all divisions.

648. **E. parviflorum.** *Screb.*, 103.
(Small-flowered Willow Herb).

Native, Brit., 1-7 Aug., I.
Frequent near Cottingham * and Selby (W.N.C.).

649. **E. montanum.** *Linn.*, 112.

Native, Brit., 1-7. July, I.
Common, and generally distributed.

651. **E. roseum.** *Schreb.*, 46.

Native, Eng., 2. July, III.
Once on a dyke-side in lane near Cottingham (E.A.P.).

653. **E. obscurum.** *Schreb.*, 97.
(Square-stalked Willow Herb).

Native, Brit., 2, 7. July, III.
Fulford gravel pit (B.), and near Beverley (R.T.).

555. **E. palustre.** *Linn.*, 110.

Native, Brit., 1-7. July, III.
Common in dykes near Hull and Cottingham.

659. ***Œnothera biennis.*** *Linn.*
(Evening Primrose).

Alien. August.

661. **Circæa lutetiana.** *Linn.*, 103.
(Enchanter's Nightshade).

Native, Brit., 1-7. July, II.
On the roadside between Beverley and Hull. Birkhill, and at Willerby.* Frequent near York (B.).

CUCURBITACEÆ.

663. **Bryonia dioica.** *Jacq.*, 59.

(Bryony vine, "Mandrakes").

Native, Eng., 6, 7. June, III.

Frequent. North and South Cave, Weedley dale; Beverley (Dr. Hull), near Selby (W.N.C.); a xerophilous plant.

UMBELLIFERÆ.

664. **Hydrocotyle vulgaris.** *Linn.*, 110.

(Marsh Pennywort, "Whiterot").

Native, Brit., 1, 2, 5, 6, 7. June, III.

Common in most marshy or peaty places, as near Cottingham, Hornsea Mere,* Skipwith Common,* Driffield.

665. **Eryngium maritimum.** *Linn.*, 54.

(Sea Holly).

Native, Brit., 2. Aug., II.

Spurn, plentiful 1898.* Shore of the Humber between Patrington and Spurn (B.). Near Skeffling (H.J.W., 1893). Sparingly on the sands south of Bridlington.

668. **Sanicula europæa.** *Linn.*, 109.

(Sanicle).

Native, Brit., 1-7. June, IV.

Common in most woods, especially on the chalk.

670. **Conium maculatum.** *Linn.*, 104.

(Common Hemlock).

Native, Brit,, 1-7. June, IV.

Common in Holderness and all the other divisions, and usually very luxuriant.

671. **Smyrnium Olusatrum.** *Linn.*, 63.
(Alexanders).

Denizen, Eng., 2.
Near Beverley, rare (R.T.).

672. **Bupleurum rotundifolium.** *Linn.*, 39.
(Hare's Ear).

Colonist, Ger., 2, 3, 4. July, II.
Several places on the Wolds (B.); at Hedon (T.P.); Hull Docks.*

673. ***B. aristatum.*** *Bartl.*, 2.
B. protractum. *Lamk.*

Aliens. August.
West Dock Waste, Hull (C.W. and S. Mason).*

674. **B. tenuissimum.** *Linn.*, 23.

Colonist, Ger. Aug., III.
Rare. Paull Holme (T.P., Aug., 1900),* also at Saltend Common, 1901 (T.P.). The first records for Yorkshire.

677. **Apium graveolens.** *Linn.*, 58.
(Wild Celery).

Native, Eng., 2, 4, 6, 7. July, III.
A very common plant on the shores of the Humber and its tidal affluents from Spurn to Goole.

678. **A. nodiflorum.** *Reichb. fil.*, 82.
(Water Parsnep).

Native, Eng., 1, 2, 4, 6, 7. Aug., I.
Common in dykes adjacent to the Humber; var. repens, Hook. fil., at Skipwith Common (*see* Lees' Flora of the West Riding of Yorkshire, p. 253); var. ocreatum, *fide* Rev. W. R. Linton, at Newbald Springs (C.W.).*

679. **Apium inundatum.** *Reichb. fil.*, 96.

Native, Brit., 1, 7. July, IV.

Skipwith (W.N.C.), and Arram Beck (1898).*

680. **Cicuta virosa.** *Linn.*, 37.

Native, Eng., 7. July.

Rare. Pond at Langwith, and marshy places near Kexby and Elvington (H. Ibbotson, *vide* Baker's Sup. to Baines' Flora, 1856).

684. **C. segetum.** *Benth and Hook. fil.*, 45.
(Corn Parsley).

Native, Eng., 2. Aug., II.

Frequent in Holderness, chiefly by drain sides. "Said to be common near Hull" (B.). Common enough by Skidby Drain, adjacent to Beverley Road, Hull.* Burstwick, Holderness (C.W., 1897).* Specimens from cornfields near Hull are in the York Museum (collector, W. Brunton; date, 1800).

685. ***C. Carvi.*** *Linn.*
(Caraway).

Alien. July, III.

Escaped from cultivation. "Granswick" (? Hutton Cranswick) (J. Ray, 2nd Itinerary, 1661). Ditches near Hull (R.T., 1798). The late E. Riley, who farmed on the wolds during a long period, informed me that he had grown it as a crop. Frequent between Hull and Hessle in the fifties, the children of Hull were accustomed to gather and nibble the seeds. Mr. J. R. Boyle, F.S.A., the custodian of the Hull Corporation Records, says that certain fields in the west part of Hull are mentioned in deeds as "carvi" fields, which facts, taken together with the rarity of the plant elsewhere, indicate the exotic origin of caraway. The plant is now only found amongst the numerous dock-side aliens.

687. **Sison Amomum.** *Linn.*, 54.
(Bastard Stone-parsley).

Native, Eng., 6. Aug., II.

In moist places near Hull (B.); unknown here now. I suspect there has been a mistake with C. segetum, so similar a plant, but Mr. J. Beanland records it for near Howden, and this is our only station.

689. **Sium latifolium.** *Linn.*, 42.
(Broad-leaved Water Parsnep).

Native, Eng., 1, 2, 6, 7. July, II.

Common in all the smaller dykes, in Holderness especially, as well as in the other divisions.

690. **S. erectum.** *Huds.*, 81.
(Narrow-leaved Water Parsnep).

Native, Eng., 1-7. July, II.

Very common in drains and dykes like the above, but also in becks with chalk-gravel bottoms.

691. **Ægopodium Podagraria.** *Linn.*, 100.
(Goutweed).

Native, Brit., 1-7. July.

Damp waysides; common in all the districts.

692. **Pimpinella Saxifraga.** *Linn.*, 102.
(Common Burnet Saxifrage).

Native, Brit., 3, 4, 6, 7. August, II.

Common on the chalk and in gravelly places; var. dissecta, Withernsea, very frequent.

693. **P. major.** *Huds.*, 51.
(Large Burnet Saxifrage).

Native, Eng., 4, 7. August, II.

Not very common. Hessle (G.N.). Spring Head near Hull.* Found also near Selby (W.N.C.). Banks of River Ouse, near Barlby.*

694. **Conopodium denudatum.** *Koch.*, 108.
(Earth-nut. "Arnut," E.R.D.).

Native, Brit., 1-7. June, II.

Very common in dry fields and copses in all the districts.

695. **Myrrhis Odorata.** *Scop.*, 65.
(Sweet Cicely).

Native, Inter., 1, 5, 6. June, I.
Occasionally near old places. Kirkham Abbey (B.); at Burton Constable.*

696. **Chæophyllum temulum.** *Linn.*, 99.
(Rough Chervil. "Bad Man's Oatmeal," E.R.D.).

Native, Brit., 1-7. July, I.
Frequent in all three divisions.

697. **Scandix Pecten-Veneris.** *Linn.*, 93.
(Shepherd's Needle).

Colonist, Brit., 1-7. Summer.
In all cornfields.

698. **Anthriscus vulgaris.** *Bernh.*, 79.

Native, Brit., 1-7. June, II.
Common in sandy places locally. Coneygarth, near Brandesburton.* Market Weighton (J.J.M.).

699. **A. sylvestris.** *Hoffm.*, 107.
(Hedge Parsley. "Rabbit-meat" and "Kex," E.R.D.).

Native, Brit., 1-7. June, I.
The commonest umbellifer in hedgerow bottoms.

702. ***Fœniculum vulgare.*** *Mill.*, 32.
(Fennel).

Alien. July.
In chalk pits at Hessle, an escape (C.W.). Amongst the Dock waste plants.

704. **Œnanthe fistulosa.** *Linn.*, 68.
(Water Dropwort).

Native, Eng., 1, 2, 6, 7. July, IV.
Very common in wet places, especially in the dykes of Holderness, also near Howden (J.B.).

707. **Œnanthe Lachenalii.** *C. Gmel.*, 72.
(Parsley Water Dropwort).

Native, Eng., 2, 6, 7. July, IV.

Near River Derwent, in the Parish of Sutton, if "peucedanifolia" is synonymous; near Market Weighton (J.J.M.) and Howden (J.B.). Brough Swamp (C.W.), near Patrington (T.P., 1900).

708. **Œ. crocata.** *Linn.*, 92.
(Hemlock Water Dropwort).

Native, Brit., 2, 6, 7.

Not common but found in the three divisions, near Selby (W.N.C.) and Howden (J.B.), near Hull (H.S.). The author has not seen this plant in the East Riding.

709. **Œ. Phellandrium.** *Lam.*, 56.
(Fine-leaved Water Dropwort).

Native, Eng., 1, 2, 6, 7. July, III.

Common in muddy dykes of Holderness,* and also in Derwentland (W.N.C. and J.B.).

711. **Æthusa Cynapium.** *Linn.*, 96.
(Fool's Parsley).

Colonist, Brit., 1-7. August, I.

In cornfields and by waysides, frequent.

713. **Silaus flavescens.** *Bernh.*, 68.
(Pepper Saxifrage).

Native, Eng., 1-7. August.

Heslington Fields (B.); in damp places near the Wolds, and in Holderness; Hessle (G.N.), Hornsea.*

717. **Angelica sylvestris.** *Linn.*, 111.
(Wild Angelica).

Native, Brit., 1-7. July, III.

Very common, especially in damp clayey places.

720. **Peucedanum palustre.** *Moench.*, 13.
(Hog's-fennel; Marsh Milk Parsley).

Native, Ger., incog.

Marshes near Beverley (R.T.). There is a specimen from Beverley in the York Museum, collected by Col. Machell, 1796. It is not now known to exist in the E. Riding.

722. **P. sativum.** *Benth. and Hook. fil.*, 57.
(Wild Parsnep).

Denizen, Eng., 2. July, IV.

Gravel pits, Kelsey, Holderness (C.W.). Hull Dock waste ground.

723. **Heracleum Sphondylium.** *Linn.*, 112.
(Cow Parsnep).

Native, Brit., 1-7. July, IV.

Very common in grassy places; var. angustifolium, Huds., occasionally with the type.*

725. ***Coriandrum sativum.*** *Linn.*

Alien.
Hull Docks.

726. **Daucus Carota.** *Linn.*, 109.
(Wild Carrot).

Native, Brit., 1-7. July, I.

Very common, especially in Holderness; also on the chalk, as at Hessle.

727. **D. gummifer.** *Lam.*, 17.

Native, Eng., 3.
Speeton Cliffs (H. F. P. Rec. Club).

728. ***Caucalis latifolia.*** *Linn.*, 7.
(Great Bur-Parsley).

Alien.
On waste ground in East Hull, an importation (A. Pearson, 1898); also at the West Dock, Hull (C.W. and S. Mason).*

729. **Caucalis daucoides.** *Linn.*, 28.

Colonist. Germanic. July, IV.

Occasionally. Near inn, Barmby Moor. Sp. in York Museum (S. Hailstone, 1820). Found also amongst the Hull Dock aliens, the last three or four years.

531. **C. Anthriscus.** *Huds.*, 107.
(Upright Hedge Parsley).

Native, Brit., 1-7. August.

Frequent with Carum segetum near Skidby Drain, Hull.*

732. **C. nodosa.** *Scop.*, 73.
(Knotted Hedge Parsley).

Colonist, Eng., 1-7. June, II.

In cornfields at Sutton * and Cottingham.* Heslington, W. Middleton, 1806, sp. in York Museum.

ARALIACEÆ.

733. **Hedera Helix.** *Linn.*, 112.
(Ivy).

Native, Brit., 1-7. Oct., I.

Very common in hedges in all the divisions, flowering most profusely in early October, 1898, at Marton in Holderness, and Etton near Cherryburton; apparently with strong pelophile proclivity.

CORNACEÆ.

735. **Cornus sanguinea.** *Linn.*, 67.
(Wild Cornel, or Dogwood).

Native, Eng., 1-7. June, IV.

In all three divisions, but particularly on the chalk and oolitic outcrops. South Cave, Newbald.

CAPRIFOLIACEÆ.

736. **Adoxa Moschatellina.** *Linn.*, 91.
(Tuberous Moschatel).

Native, Brit., 5. April, IV.

Recorded only for the northern part of the E. Riding at Kirkham Abbey (M.B.S.).

737. **Sambucus nigra.** *Linn.*, 109.
(Elder. "Bore Tree" corrupted into "Bothery Three," E.R.D.).

Native, Brit., 1-7. June, III.

Very common. Growing well in copses in the chalk dales and elsewhere, and often having the parasitic Jew's Ear fungus upon it, *e.g.*, in Drewton Dale. A chalk xerophile, in the author's opinion.

738. **S. Ebulus.** *Linn.*, 77.
(Dwarf Elder or Danewort).

Native, Eng., 1-2.

Hedge banks near Cottingham (R.T.), Lund (O.B.G.). Not confirmed recently.

739. **Viburnum Opulus.** *Linn.*, 101.
(Guelder Rose).

Native, Brit., 1-7. July, I.

Common in hedges and thickets.

740. **V. Lantana.** *Linn.*, 45.
(Mealy Guelder Rose).

Denizen, 1-7. June, I.

Copses near Cottingham, Welton Dale Woods, &c.

742. ***Lonicera Caprifolium.*** *Linn.*
(Perfoliate Honeysuckle).

Alien, 4. June, IV.

At Londesboro' (B.), West Ella.*

743. **Lonicera Periclymenum.** *Linn.*, 112.
(Honeysuckle).

Native, Brit., 1-7. July, IV.

Common in hedges generally, and particularly on the edges of woods.

744. ***L. Xylostium.*** *Linn.*
(Fly Honeysuckle).

Alien.

Londesboro' (B.), introduced; also York Dale, Sledmere (J.T.H., 97).

RUBIACEÆ.

747. **Galium Cruciata.** *Scop.*, 97.
(Crosswort).

Native, Brit., 1-7. May, I.

Very common in hedge bottoms.

748. **G. verum.** *Linn.*, 111.
(Yellow Bedstraw).

Native, Brit., 1-7. July, IV.

Less common than the preceding species, but in Holderness and on the Wolds at Hessle.

749. **G. erectum.** *Huds.*, 29.

Native, Eng., 6. June, IV.

Field near Brough, June, 1896 (C.W., fide. Mr. A. Bennett).

750. **G. Mollugo.** *Linn.*, 77.
(Great Hedge Bedstraw or White Bedstraw).

Native, Eng., 3, 4, 6, 7. August, I.

Frequent, as at South Cave,* Weedley Springs,* Bessingdale Woods, &c. Near Selby (W.N.C.) and Howden (J.B.).

751. **Galium saxatile.** *Linn.*, 111.
(Heath Bedstraw).

Native, Brit., 1-7. July.

Common on heaths. Skipwith Common and Walling Fen district.*

753. **G. palustre.** *Linn.*, 112.

Native, Brit., 1-7. July, IV.

Common near and in dykes. Var. Witheringii, Sm., near Beverley (B.), var. microphyllum, Lange (if formerly pusillum) at Leckonfield (R.T.) and Hall Ings (J.F.R.).

754. **G. uliginosum.** *Linn.*, 93.

Native, Brit., 1, 2, 5, 6, 7. July, IV.

Frequent at the Pulfin Bend, near R. Hull.

755. **G. anglicum.** *Huds.*, 10.

Native, Eng., Incog.

Very rare. Old wall near Boynton (R.T.). Not recently confirmed.

757. **G. aparine.** *Linn.*, 112.
(Cleavers. "Airiff," E. R. D.).

Native, Brit., 1-7. June, II.

Very common everywhere, especially in hedge bottoms bordering cultivated fields.

758. **G. tricorne.** *Stokes*, 43.
(Corn Bed-straw).

Colonist, Ger., 1-7. August.

Frequent in cornfields. Marfleet; near Sutton; Benningholme in Holderness, and on the Dock wastes, Hull.

759. **Asperula odorata.** *Linn.*, 106.
(Sweet Woodruff).

Native, Brit., 2, 6. June, I.

Very sparingly in the Holderness and Wold portions of the Riding. Beverley Westwood (Mr. T. Dennis). West Ella and Hall Ings near Cottingham.* Near Howden (J.B.).

761. **A. cynanchica.** *Linn.*, 40.
(Quinzywort).
Native, Eng., 3. June, IV.
Rare. Hedge banks on Langton Wold (M.B.S.).

762. ***A. arvensis.*** *Linn.*
Alien. June.
Waste ground in Hull, as well as near the docks.

763. **Sherardia arvensis.** *Linn.*, 109.
(Field Madder).
Colonist, Brit., 1-7. Spring and summer.
Very common in stubble fields.

VALERIANEÆ.

764. **Valeriana dioica.** *Linn.*, 73.
(Small Marsh Valerian).
Native, Eng., 1-7. June, I.
Frequent in damp places in all the divisions.

766. **V. sambucifolia.** *Willd.*,
(Great Wild Valerian. "All-heal.").
Native, Brit., 1-7.
Common by the sides of dykes.

768. **Centranthus ruber.** *DC.*
(Red Valerian).
Denizen. Summer.
Very abundant in the chalk pits at Hessle, where it is quite naturalised, and in summer drapes the chalk in crimson.

770. **Valerianella olitoria.** *Poll.*, 99.
(Corn Salad, or Lamb's Lettuce).
Colonist, Brit., 1-7. June, I.
Frequent. At Kelsey Hill,* Spurn Point,* Heslington fields (B.).

773. **Valerianella rimosa.** *Bast*, 37.

Colonist, Eng., 6.

Arable land, Holme-on-Spalding Moor (C.W. at Y.N.U., Aug., 1899).

774. **V. dentata.** *Poll.*, 82.

(Corn Salad).

Colonist, Eng., 2. July.

In cornfields near Wawne, Holderness.*

DIPSACEÆ.

775. **Dipsacus sylvestris.** *Huds.*, 74.

(Wild Teasel).

Native, Eng., 1, 2, 6, 7. Aug., III.

Frequent. Lockington, Kexby, and Wilberfoss (B.). Sutton,* Cottingham,* Hedon and Paull.* Near Howden (J.B.). Selby (W.N.C.).

776. **D. pilosus.** *Linn.*, 82.

(Small Teasel).

Native, Eng., Incog.

Woods near Beverley (R.T.). Not reported during the last thirty years.

D. fullonum.

(Fuller's Teasel).

Alien.

West Dock, Hull.

777. **Scabiosa Succisa.** *Linn.*, 112.

(Devil's-bit).

Native, Brit., 1-7. Aug., IV.

Frequent, particularly in moist places, as at Haltemprice near Cottingham; Heslington fields (B.).

778. **Scabiosa Columbaria.** *Linn.*, 72.

(Small Scabious).

Native, Brit., 3, 4. Aug., II.

As frequent as the former species, but in drier situations, especially on the chalk.*

779. **S. arvensis.** *Linn.*, 98.

(Field Scabious).

Native, Brit., 1-7. July, III.

Common. Heslington fields (B.). All the three species are notedly chalk-preferring plants.

COMPOSITÆ.

781. **Eupatorium cannabinum.** *Linn.*, 98.

(Hemp Agrimony).

Native, Brit., 1-7. August.

Frequent in Holderness, as near Cottingham, and at Pulfin Bend, R. Hull. Weedley Springs (Mr. Geo. Brumby). Selby (W.N.C.). Howden (J.B.).

782. **Solidago Virgaurea.** *Linn.*, 109.

(Golden-rod).

Native, Brit., 6, 7. August.

Market Weighton (J.J.M,), Skipwith Common (W.N.C.), and Newsholme (J.B.). Very rare, if at all, in Holderness. I have not seen a specimen from the last division.

783. **Bellis perennis.** *Linn.*, 112.

(Daisy).

Native, Brit., 1-7. May and June.

Everywhere abundant, particularly in Holderness.

785. **Aster Tripolium.** *Linn.*, 68.
(Sea Michaelmas Daisy).

Native, Brit., 2, 4, 6. Aug., III.

Common on the banks of the Hull and the Humber as far as the tide goes.

788. **Erigeron acre.** *Linn.*, 65.
(Blue Flea-bane).

Native, Eng., 3, 4. Aug., I.

On the Wolds in many places (B.). Hessle, on the railway embankments.*

790. **Filago germanica.** *Linn.*, 96.
(Cudweed. "Hen and Chickens," E.R.D.).

Colonist, Brit., 1-7. August.

A common weed on stubble-land in all three divisions.

793. **F. minima.** *Fr.*, 91.
(Least Filago).

Colonist, Brit., 5, 6, 7. August.

Market Weighton; Houghton Moor (J.J.M.); near Selby (W.N.C.) in sandy places; Rillington (G.W.) (W.W.).

795. **Antennaria dioica.** *R.Br.*, 86.
(Mountain Everlasting. "Cat's-foot").

Native, Scot., 3, 4. July.

Langton Wold (M.B.S.). In dry, heathy places (B.). One of Dr. Hull's list for near Beverley (Scaum's "Beverlac").

797. **Gnaphalium uliginosum.** *Linn.*, 111.

Native, Brit., 1-7. August.

Frequent in damp, clayey places, as in Risby Park, Willerby, &c. General in all divisions.

799. **Gnaphalium sylvaticum.** *Linn.*, 102.

Native, Brit., 5, 6, 7. August, II.

Sandy woods. Houghton Moor.* Sandy fields near Kilvington (B.). Skipwith Common (W.N.C.). Howden (J.B.).

802. **Inula Helenium.** *Linn.*, (?).

(Elecampane).

Denizen, Eng.

Dr. Hull's list (Scaum's Bev.); once found near Willerby, probably an outcast from a garden (C.W., 1898). Mr. Wm. Brumby knew of it in this locality some years previous to 1898.

806. **Pulicaria dysenterica.** *Gærtn.*, 79.

(Fleabane).

Native, Eng., 1-7.

Frequent in Vale of York (B.); common in Holderness, near dykes and drains. In the Wold dales near South Cave.*

808. ***Xanthium Strumarium.*** *Linn.*

809. ***X. spinosum.*** *Linn.*

Aliens.

Both species frequent at the Hull Docks.

810. **Bidens cernua.** *Linn.*, 82.

(Nodding Bur-marigold).

Native, Eng., 2, 6, 7. August, III.

Near Holme-on-Spalding-Moor (J.J.M.), and on Skipwith (W.N.C.). Near Hornsea Mere* (Mr. J. Schofield, August, 1899.

811. **B. tripartita.** *Linn.*, 84.

(Trifid Bur-marigold).

Native, Eng., 2, 6, 7. August, III.

Same localities and vouchers as B. cernua above, and ponds at Fulford, near York (B.).

813. **Achillea Millefolium.** *Linn.*, 112.
(Yarrow).

Native, Brit., 1-7. July, III.
Common, chiefly in dry places.

814. **A. Ptarmica.** *Linn.*, 110.
(Sneezewort).

Native, Brit., 1-7. July, IV.
Always in marshy spots, and commonly distributed.

A. ligustica.

Alien.
Hull Docks. Mr. S. T. Dunn identifies.

816. ***Anthemis tinctoria.*** *Linn.*
Alien.
Common amongst the aliens, West Dock, Hull.

817. **Anthemis Cotula.** *Linn.*, 74.
(Stinking Chamomile).

Colonist, Eng., 1-7. August.
In cornfields. Heslington Fields, &c.; near York (B.); near Skipwith Common (C.W.); Howden (J.B.).

818. **A. arvensis.** *Linn.*, 73.
(Corn Chamomile).

Colonist, Eng., 1-7. July.
Cornfields, Holderness. "East Riding not infrequent"(B).

819. **A. nobilis.** *Linn.*, 49.

Colonist, Eng. July, II.
Driffield (Y.N.U., July, 1899).

820. **Chrysanthemum segetum.** *Linn.*, 110.
(Yellow Ox-eye).

Colonist, Brit., 1-7. August, III.

Sutton-on-Derwent; Heslington Fields (B.).; Cottingham;* cornfields near Holme-on-Spalding Moor; in fields near Skipwith Common.*

821. **C. Leucanthemum.** *Linn.*, 112.
(White Ox-eye—Dog-daisy, "Mays," and "Moon-daisy").

Native, Brit., 1-7. June, IV.

Very common in meadows and on railway embankments generally.

822. ***C. parthenium.*** *Pers.*
(Fever-few).

Alien.

In waste places; Hessle, Hull docks.

P. hysterophorum.

Alien.

Hull Docks, *teste* Mr. S. T. Dunn.

823. **Matricaria inodora.** *Linn.*, 111.
(Scentless May-weed).

Native, Brit., 1-7. August.

In cornfields, common. Var. salina, Bab., at Hessle (C.W.).*

824. **M. maritima.** *Linn.*

Native, Brit., 3, 5. July, III.

Flamboro' Head (B.).* Hunmanby Wyke, Filey Bay (C.W., Aug., 1901).

825. **M. Chamomilla.** *Linn.*, 64.
(Wild Chamomile).

Colonist, Eng., 1-7). Aug., I.

Heslington fields (B.); near Rise in Holderness;* River Hull banks near Driffield (J.T.H.).

827. **Tanacetum vulgare.** *Linn.*, 105.
(Tansy).

Native, Brit., 1-7. Aug., III.

Banks of Ouse below York abundant (B.); near Allerthorpe Common (C.W.); and in many other places in Derwentland.*

828. **Artemisia Absinthium.** *Linn.*, 72.
(Wormwood).

Denizen, Eng., 2.

Aldbro' in Holderness (B.). Common amongst the dock waste ground aliens.*

829. **A. vulgaris.** *Linn.*, 110.
(Mugwort, Green Ginger, or "Muggerwort," H. Best's Farm Book, 1666.).

Native, Brit., 1-7.

Frequent on old fences near Brough. The local name is used also for other aromatic herbs, and hence the street name (Land of Green Ginger) in Hull where once such herbs were cultivated, *fide* Mr. J. R. Boyle, F.S.A.

830. ***A. campestris.***

Alien.

Occasionally near the Hull Docks.*

831. **A. maritima.** *Linn.*, 49.
(Sea Wormwood).

Native, Eng., 2, 6, 7. Aug., III.

Abundant on the bank of the Humber from Hull to Spurn, and by the sides of all dykes and drains communicating with the estuary.

832. **Tussilago Farfara.** *Linn.*, 112.
(Colt's-foot. "Clayt" or "Cleet," and "Foal's-foot").

Native, Brit., 1-7. March, II.

Very common everywhere, especially on clay, as on the Boulder clay cliffs of Holderness; but equally abundant and luxuriant in rich sandy soil, as near the Hull Docks.

833. ***Petasites fragrans.*** *Presl.*

Alien.

Near Hessle chalk pits (C.W.), an escape from gardens.

834. **P. officinalis.** *Mœnch.*, 105.

(Butter-bur. "Wild Rhubarb").

Native, Brit., 1-7. April, II.

In damp, rich soil, common.

835. ***P. albus.*** *Gærtn.*

(White Butter-bur).

Alien. Jan., IV.

Introduced and escaped from gardens at Cottingham near Snuff Mill Pond, where it flowers in January and February every year. Seen repeatedly since 1886.*

836. ***Doronicum Pardalianches.***

(Leopard's-bane).

Alien.

At Metham*; Londesboro' (B.). Welton Woods (C.W.). Rose Cottage, Hull (G.N., 1864).

838. **Senecio vulgaris.** *Linn.*, 112.

(Common Groundsel).

Native, Brit., 1-7. Jan. to Dec.

Everywhere in gardens.

839. **S. sylvaticus.** *Linn.*, 107.

Native, Brit., 1-7. Aug., I.

"On Tilmire" (B.); Houghton Woods; Skipsea, Brough.*

840. **S. viscosus.** *Linn.*, 33.

Native, Eng., 2, 3, 4, 6. August.

Side of railway, Market Weighton (J.J.M.). Common amongst the dock-waste plants.*

842. **Senecio erucifolius.** *Linn.*, 67.
(Hoary Ragwort).

Native, Eng., 3, 4. Aug., I.

Near Pocklington (B.). Chalk-pits at Hessle, and elsewhere on the Wolds.*

843. **S. Jacobæa.** *Linn.*, 112.
(Common Ragwort).

Native, Brit., 1-7. July.

Common, especially on sand hills near sea.

844. **S. aquaticus.** *Huds.*, 111.

Native, Brit., 1-7. July, IV.

Very frequent in wet places.

Villanova dissecta. *Hook.*

Alien.

On the dockside wastes, Hull; from Peru, *teste* Mr. S. T. Dunn.

850. **Carlina vulgaris.** *Linn.*, 83.
(Carline Thistle).

Native, Eng., 3, 4. Aug., I.

On chalk cliffs at Speeton.* "Wolds near Beverley" (R.T.), and South Cave (C.W.).*

851. **Arctium majus.** *Bernh.*, 43.
(Common Burdock).

Native, Brit., 1-7. July, IV.

Osgodby (W.N.C.); Raywell Woods;* but there are doubts if this is really *majus*. It is quite distinct from *A. minus*.

853. **A. minus.** *Bernh.*, 91.
(Lesser Burdock).

Native, Brit., 1-7. July, IV.

Frequent generally, particularly on or near roads by the sides of woods or copses.

854. **Arctium intermedium.** *Lange,* 36.
(Burdock).

Native, Brit., 7.

Heslington fields (B.). "York s. east (F. A. Lees)"—Watson's Topographical Botany.

855. **Carduus pycnocephalus.** *Linn.*, 70.
(Slender-flowered Thistle).

Native, Eng., 2, 6. July.

Spurn (Mr. J. Farrah, F.L.S., of Harrogate); Market Weighton (J.J.M.).

856. **C. nutans.** *Linn.*, 75.
(Musk Thistle. "Buck Thistle").

Native, Eng., 1-7. June, III.

Common. Near Market Weighton and Brandesburton.*

857. **C. crispus.** *Linn.*, 87.
(Welted Thistle).

Native, Brit., 1-7. July, IV.

Very common generally.

858. **Cnicus lanceolatus.** *Willd.*, 112.
(Spear Thistle).

Native, Brit., 1-7. Aug., I.

Everywhere common by roadsides and near cultivated fields.

859. **C. eriophorus.** *Roth.*, 48.
(Woolly-headed Thistle).

Native, Eng., 3, 4. Aug., I.

From Market Weighton to Londesboro' (B.). Wold-dale, &c.* Scugglethorpe and N. Grimston* (M.B.S.). Near Flambro' (C.W.). A magnificent xerophile.

860. **Cnicus palustris.** *Willd.*, 112.
(Marsh Thistle).

Native, Brit., 1-7. July III.

Frequent in wet places, but not nearly so common in the East as in the more elevated Ridings.

862. **C. pratensis.** *Willd.*, 49.
(Meadow Plume Thistle).

Native, Eng., 2, 6. July.

Rare. Near Hull (B.). Staddlethorpe (C.W.).*

866. **C. arvensis.** *Hoffm.*, 112.
(Creeping Cornfield Thistle).

Native, Brit., 1-7.

Too common; the Nemesis of the bad farmer. Var. d. setosus (Bess.) is very abundant on the dock wastes, Hull.* Var. vestitus, Koch, from the same locality, is for the first time recognised by Mr. S. T. Dunn and W.W. as of British growth.

867. **Onopordon Acanthium.** *Linn.*, 60.

Alien.

Rare. Amongst the aliens of the Hull docks. Mr. Saml. Mason gathered it in 1901,* and young plants are growing there now, May, 1902.

868. ***Mariana lactea.*** *Hill.*
(Milk-veined Thistle).

Denizen, Eng., 4, 5. July, IV.

Near villages; an escape. Rillington (B.). Little Weighton.*

870. **Serratula tinctoria.** *Linn.*, 64.
(Saw-wort).

Native, Eng., 6. Aug., II.

Near Market Weighton (J.J.M.). the only record.*

872. **Centaurea nigra.** *Linn.*, 111.

(Black Knapweed. "Hard-heads," E.R.D.).

Native, Brit., 1-7. Aug., I.

Common in all the divisions.

873. **C. Scabiosa.** *Linn.*, 82

(Great Knapweed).

Native, Brit., 3, 4, 5, 6, 7. Aug., I.

Frequently on the Wolds and dry places in Holderness;* with white flowers in Heslington Fields (B.). Newstead, on Settrington Road (M.B.S.).

874. **C. Cyanus.** *Linn.*, 98.

(Born Blue Bottle).

Colonist, Brit., 1-7. July, III.

Frequently in cornfields; near Beverley (Dr. Hull, Scaum's Bev.); and amongst many other alien Centaureæ on the dock wastes.*

876. ***C. aspera.*** *Linn.*

877. ***C. Calcitrapa.*** *Linn.*, 17.

878. ***C. solstitialis.*** *Linn.*

C. melitensis. *Linn.*

C. diffusa. *Lamk.*

Aliens.

Common on the Hull docks waste ground.

879. **Cichorium Intybus.** *Linn.*, 65.

(Chicory).

Colonist, Eng., 1, 2.

On the clay cliffs of Holderness;* near Beverley (Dr. Hull); by the R. Hull near Driffield (J.T.H.); and very common with the dock aliens, Hull.

881. **Lapsana communis.** *Linn.*, 112.
(Nipplewort).

Native, Brit., 1-7 Aug., I.

On dry hedge banks.

882. **Picris hieracioides.** *Linn.*, 60.
(Hawkweed Picris).

Native, Eng., 3, 4. August.

On the wolds, as at Skidby and Willerby;* and not infrequent at the dock wastes, Hull.*

883. **P. echioides.** *Linn.*, 65.
(Bristly Ox-tongue).

Native, Eng., 2. July, IV.

"Sides of ditches near Beverley; rare" (R.T.); frequent enough by the side of Skidby Drain, near Hull.*

886. ***Crepis setosa.*** *Hall, fil.*

Alien.

N. Cave, June, 1898 (C.W.).*

887. **C. virens.** *Linn.*, 110.
(Hawk's-beard).

Native, Brit., 1-7. July, IV.

Very common.

889. **C. biennis.** *Linn.*, 27.

Colonist, Ger., 1.

On the wolds west of Bishop Burton (R.T.); not noticed by anyone since, and probably a mistake at first (*see* Wats. Top. Bot.).

891. **C. paludosa.** *Mœnch.*, 62.
(Marsh Hawk's-beard).

Native, Scot., 1, 2, 4. July, III.

Pulfin Bog near R. Hull;* Drewton Dale (C.W.). King's Mill, Driffield, and in marshy places near R. Hull, below Driffield.*

892. **Hieracium Pilosella.** *Linn.*, 110.

(Mouse-ear Hawkweed).

Native, Brit., 1-7. July.

Common in dry places. Dr. Hull's (Scaum's Bev.); very small specimens on tumuli, Hall Ings near Cottingham.

952. **H. murorum.** *L. pt., agg.*, 68.

(Golden Langwort).

Native, Brit., 1.

Sunderlandwick (J.T.H., 1898).

967. **H. vulgatum.** *Fr., agg.*, 90.

Native, Brit., 7. August.

Langwith (G.W.).

994. **H. boreale.** *Fr.*, 96.

(Northern Hawkweed).

Native, Brit., 7. Aug., III.

Langwith Common (W.W., 1865). Skipwith Common.*

995. **H. umbellatum.** *Linn., agg.*, 58.

(Hawkweed).

Native, Brit., 1, 6, 7.

Heslington (G. Webster, 1887; W.W.); near Pocklington (C.W.); Tibthorpe, near Driffield (J.T.H.). The Hawkweeds (except H. pilosella), are very uncommon in the East Riding.

996. **Hypochœris glabra.** *Linn.*, 43.

Native, Eng., 5, 6. July.

Sandy fields near Allerthorpe Common (B.B. Le Tall, 1890); near Rillington, the var. erostra (Cosson) by G. Webster (W.W.). The last was the first found in the East Riding.

997. **Hypochœris radicata.** *Linn.*, 111.

(Cat's-ear).

Native, Brit., 1-7. Aug., II.

Not particularly common.

999. **Leontodon hirtus.** *Linn.*, 71.

(Hairy Hawk-bit).

Native, Eng., 3, 4, 5, 6. Aug., II.

Market Weighton, and near Filey (J.J.M.); S. Cave, Drewton Dale, Sept., 1901.

1000. **L. hispidus.** *Linn.*, 92.

Native, Eng., 1-7. Aug., II.

Common in grassy places on wolds. Bessingdale. S. Cave.*

1001. **L. autumnalis.** *Linn.*, 110.

(Hawk-bit).

Native, Brit., 1-7. Sept., I.

Very common, and a very pretty Autumn composite.

1002. **Taraxacum officinals.** *Web.*, 112.

(Dandelion. "Piss-a-bed," E.R.D.).

Native, Brit., 1-7. Spring and Summer.

Very common in grass fields; var. erythrospermum (Andrz.) on wolds near S. Cave;* var. palustre (DC.) near Hornsea Mere (C.W.), and marshy meadows near Beverley (B.); on peaty soil, Hall Ings, near Cottingham.*

1003. **Lactuca virosa.** *Linn.*, 51.

(Wild Lettuce).

Native, Ger., 2, 3, 4, 5, 6. Aug., II.

On dry banks near Beverley (R.T.). Between York and Skipton. Walls of Kirkham Abbey. Walkington, near Beverley (B.).

1006. **Lactuca muralis.** *Fresen.*, 69.
(Wall Lettuce).

Native, Eng., 3, 4. Aug., II.
Common in all wold woods from Flambro' to S. Cave.*

Rhagadiolus stellatus. *Gærtn.*

Alien.
Frequent among the dock aliens.

1009. **Sonchus oleraceus.** *Linn*, 111.
(Sow-thistle).

Native, Brit., 1-7. July, III.
Common in cornfields, &c.

1010. **S. asper.** *Hoffm.*, 104.
(Common Sow-thistle).

Native, Brit., 1-7. July, III.
Common in hedgerows near cultivation.

1011. **S. arvensis.** *Linn.*, 111.
(Corn Sow-thistle).

Colonist, Brit., 1-7. Aug., I.
Very common amongst growing corn.

1012. ***S. palustris.*** *Linn.*

Alien.

In a damp place near a mill at Brough, introduced (C.W., 1897). Transplanted to the East Park, Hull, it there grows to a great size.

1013. **Tragopogon pratense.** *Linn.*, 84.
(Goat's-beard. "John-go-to-bed-at-noon").

Native, Brit., 1-7. July, IV.

Common in Holderness, especially along the drain banks. Var. b. minus (Mill.) is occasionally found amongst the dock waste aliens, Hull.*

1014. ***T. porrifolium.*** *Linn.*

Hemizonia pungens.

Aliens. Frequent near the Hull docks.

CAMPANULACEÆ.

1017. **Jasione montana.** *Linn.*, 80.

(Sheep's-bit).

Native, Brit., 6. Aug., I.

Only in the westerly division; near Market Weighton (J.J.M.).*

1021. **Campanula glomerata.** *Linn.*, 61.

(Clustered Bell-flower).

Native, Ger., 3, 4, 5, 6, 7. Aug., II.

Frequent on the Wolds, as at South Cave, Bessingdale, and in Derwentland near York and Kirkham (B.). Ouse banks near Selby (W.N.C.).

1023. **C. latifolia.** *Linn.*, 61.

(Giant Bell-flower).

Native, Scot., 1, 4, 6, 7. Aug., I.

Uncommon. In damp woods and hedge banks near Fulford and Howden (B.). Raywell Woods,* and Leckonfield.*

1024. ***C. rapunculoides.*** *Linn.*, 111.

(Creeping Bell-flower).

Alien. Aug., I.

Near Brantinghamthorpe (E.A.P. and Mr. T. Dennis, who saw it growing plentifully by a roadside, 1882).

1025. **C. rotundifolia.** *Linn.*, 111.

(Hair-bell).

Native, Brit., 1-7. August.

Common on road sides especially on the Wold tract.

1027. **Campanula Rapunculus.** *Linn.*, 31.

Denizen, Eng.

Wressle (B); Archd. Pierson (O.B.G.).

1029. **Specularia hybrida.** *A.DC.*, 47.
(Corn Bell-flower).

Colonist, Ger., 1-7. August.

Heslington Fields; Londesboro', Knapton, and other places on the Wolds (B.); near Welton (C.W., 1891); near the Hull Docks, 1900 (J. W. Boult).

ERICACEÆ.

1032. **Vaccinium Myrtillus.** *Linn.*, 101.
(Bilberry).

Native, Brit., 7. May, III.

Not common in the East Riding; but at Cliff Wood and on Skipwith Common (W.N.C.), *i.e.*, only in Derwentland.

1038. **Calluna Erica.** *DC.*, 101.
(Common Heather).

Native, Brit., 2, 6, 7. August, IV.

None of the heath family are common in the East Rlding. This and the next two species are found almost entirely in the western divisions, as at Houghton Moor, Holme-on-Spalding Moor, and on Bubwith and Skipwith Commons, the last situation being by far the largest heathery tract in the East Riding.* A small patch of Calluna still exists near Birkhill Wood, 1901. Intermingled with profusion of Gentiana Pneumonanthe in flower at the same time Skipwith Common in September affords a most striking and beautiful appearance.

1040. **Erica Tetralix.** *Linn.*, 110.
(Bell-heather).

Native, Brit., 6-7. July, IV.

Same as the above, but very sparingly intermixed with it, owing probably to lack of that peaty habitat not required to such an extent by Calluna.

1042. **Erica cinerea.** *Linn.*, 108.
(Fine-leaved Heath).

Native, Brit., 6-7. July, IV.

Same localities as the above, but still rarer.

1050. **Pyrola minor.** *Linn.*, 68.
(Lesser Wintergreen).

Native, Scot., 2-6. July, I.

Rare: "Cottingham Common, locally" (G.N.); Houghton Woods (J.J.M.).*

MONOTROPEÆ.

1053. **Hypopitys Monotropa.** *Crantz.*, 46.
(Yellow Bird's-nest).

Native, Ger., 3-7. August, II.

Beech Woods on the Wolds, Boynton Woods (B.), "Mt. Airy" near South Cave, first recorded by G. H. Hill and R. H. Philip, 1891. This interesting parasite seems to be closely associated with a mould like fungus (Mychorhiza) investing the roots of the Beech; Boynton Woods (B.).

PLUMBAGINEÆ.

1054. **Statice Limonium.** *Linn.*, 35.
(Sea Lavender).

Native, Eng., 1, 2. August, III.

Sparingly at Bridlington; sp. in Herbarium of Mr. Michael Waller, Hull. Near Hedon on the muddy shores of the Humber, July, 1901, T. Petch, Esq., B.A., B.Sc. Then again on Sunk Island, 28th August, by the same gentleman, making the first records for South Holderness.†

1058. **Armeria maritima.** *Willd.*, 75.
(Thrift or Sea Pink).

Native, Brit., 2, 4, 6. June.

Common near the Humber as between Hessle and Hull, and indeed all the way to Spurn. Always found on the grassy alluvium now only covered, if at all, by spring tides.

† *See* Trans. Hull S. & F. N. Club, 1901, pp. 233-235.

PRIMULACEÆ.

1060. **Hottonia palustris.** *Linn.*, 48.

(Water Violet).

Native, Eng., 1-7. May, III.

In muddy dykes in the Vale of York and near Beverley (B.); a common and beautiful May plant in Holderness dykes.* Near Selby, Skipwith Common (W.N.C.).

1061. **Primula acaulis.** *Linn.*, 111.

(Primrose).

Native, Brit., 1-7. April, III.

Common, but gradually diminishing as the vicinity of towns is reached; the hybrid with the cowslip is frequent, and was formerly confounded with the oxlip; it is only acaulis x veris.

1062. **P. veris.** *Linn.*, 89.

(Cowslip).

Native, Brit., 1-7. May, II.

Exceedingly common in every meadow of Holderness, and also in the other divisions. The second week in May merits the distinction of being "Cowslip week," great quantities for the making of the "wine" of this sort being brought to the markets. The hybrid, acaulis x veris, above mentioned is not at all uncommon. A remarkable form, in which all the floral whorls are polyphyllous and the ovules naked! was gathered near Holmpton, Holderness, by Mr. J. W. Mackay of Hull, May, 1901, and 1902. Sp. *in Herb.*, J.F.R.

1067. **Lysimachia thyrsiflora.** *Ait.*, 14.

(Tufted Loosestrife).

Native, Inter., Incog.

J. Ray, 1685, Gough's "Britannia." In the E. Riding, but not seen by R. Teesdale (R.T.), nor, to our knowledge, by anyone since.

1068. **Lysimachia vulgaris.** *Linn.*, 78.
(Great Yellow Loosestrife).

Native, Eng., 1, 2, 5, 6, 7. Aug., I.

Heslington fields and banks of the Derwent (B.); Barlby (W.N.C.); Inglemire Lane* near Hull, and Pulfin Bend;* in ditches near Market Weighton (C.W.); near Kirkham Abbey and the Derwent (M.B.S.).

1071. **L. Nummularia.** *Linn.*, 70.
(Moneywort).

Native, Eng., 1, 2, 6, 7. July, II.

Very common by dykes and drains in Holderness,* and also near Selby (W.N.C.).

1072. **L. nemorum.** *Linn.*, 109.
(Yellow Pimpernel).

Native, Brit., 1-7. July, II.

Rather uncommon, but at Risby Park,* Birkhill Wood* in Cottingham, and in the Derwent district at Howden (J.B.) and Selby (W.N.C.).

1074. **Glaux maritima.** *Linn.*, 71.
(Black Saltwort).

Native, Brit., 2, 4, 6. July.

Common on the foreshores of the Humber and its affluents; Stoneferry (G.N.); Humber Bank.*

1075. **Anagallis arvensis.** *Linn.*, 90.
(Scarlet Pimpernel; Poor-man's Weather-glass).

Colonist, Brit., 1-7. Summer and Autumn.

Common in cornfields generally.

1076. **A. cærulea.** *Schreb.*, 48.
(Blue Pimpernel).

Colonist, Brit., 2, 6. Summer.

Near Newsholme, Howden (J.B.), and very commonly amongst the dock aliens at Hull.*

1077. **Anagallis tenella.** *Linn.*, 97.
(Bog Pimpernel).

Native, Brit., 1, 2, 5, 6, 7. July, II.

Barlby Moor, Skipwith Common, Cottingham (B.); still sparingly at the last place, 1898,* but gone 1900 (J.F.R.); near Brough (C.W.); Market Weighton (J.J.M.); Overcleugh, Driffield (C.W.); King's Mill (J.T.H., 1898).

1078. **Centunculus minimus.** *Linn.*, 64.
(Bastard Pimpernel, or Chaffweed).

Native, Eng., 6, 7. July, III.

Near Holme-on-Spalding Moor, and Houghton Moor near Newbald (R.T., B., and J.J.M., 1893).* Skipwith Common (W.N.C.). A plant decidedly characteristic of the sandy Derwentland districts.

2079. **Samolus Valerandi.** *Linn.*, 82.
(Brookweed).

Native, Eng., 1, 2, 5, 6, 7. Aug., 1.

Frequent in watery places near Hull.* Heslington fields and Holme-on-Spalding Moor (B.). Staddlethorpe (C.W.). Skipwith Common.

OLEACEÆ.

1080. **Fraxinus excelsior.** *Linn.*, 109.
(Common Ash. "Esh").

Native, Brit., 1-7. May, III.

Common, and in places very fine trees, as at Cottingham and Everingham Park.

1081. **Ligustrum vulgare.** *Linn.*, 83.
(Privet).

Native, Eng., 1-7. June, IV.

Common in hedges near Cottingham and Hull.

APOCYNACEÆ.

1082. ***Vinca major.*** *Linn.*

(Greater Periwinkle).

Alien.

Londesboro' (B.); Welton introduced (C.W.).

1083. **V. minor.** *Linn.*, 73.

(Lesser Periwinkle).

Denizen, Eng. May III.

Kirkham Abbey (R.T.); Londesboro' (B.) by the old sunken road near Emswell, Driffield,* where it grows abundantly with *Geranium Phœum*, another old garden plant.

GENTIANEÆ.

1085. **Blackstonia perfoliata.** *Huds.*, 60.

(Yellow-wort).

Native, Eng., 2, 3, 4. Aug., I.

Wolds (R.T.); near Willerby*; frequent at Spurn (Y.N.U. Meeting, 1898).

1086. **Erythræa Centaurium.** *Pers.*, 102.

(Centuary. "Sanctuary," E.R.D.).

Native, Brit., 1-7. July and August.

Frequent in all divisions, but mostly near the seaside.

1089. **E. pulchella.** *Fr.*, 43.

(Dwarf Centuary).

Native, Brit., 1, 2. August.

On the cliff at Bridlington Quay (Mr. S. Gibson, addendum to Barne's Flora). Probably the same plant gathered by Mr. G. A. Hill near Spurn in 1892.

1092. **Gentiana Pneumonanthe.** *Linn.*, 30.

(Marsh Gentian).

Native, Eng., 2, 6, 7. Sept., I.

Uncommon; Ross and Spalding Moors; Everingham, and other places near Pocklington (B.); near Beverley (Dr. Hull "Beverlac"); Allerthorpe Common (C.W.); Skipwith Common (W.N.C.); Houghton Woods (G.N.). Now only, perhaps, on the Derwent tract (*see* remarks under *Calluna Erica*, 1038, above).

1095. **G. Amarella.** *Linn.*, 81.

(Small-flowered Gentian).

Native, Brit., 3, 4. Aug., II.

Common on the Wolds, with *Blackstonia* at Willerby.

1097. **G. campestris.** *Linn.*, 85.

(Field Gentian).

Native, Brit., 2, 3, 4. Aug., I.

Driffield Wold (M.H.); rare compared with the preceding; near Beverley (Dr. Hull).

1099. **Menyanthes trifoliata.** *Linn.*, 110.

(Buck Bean).

Native, Brit., 1, 2, 5, 6, 7. June I.

Common generally; Hornsea Mere, at the edge of which there are extensive beds; at Pulfin Bend, near River Hull; Lowthorpe; Hall Ings, Cottingham, 1898*; Riccall Common (W.N.C.).

1100. ***Limnanthemum peltatum.*** *S. P. Gmel.*

(Waterlily-like Villarsia).

Alien.

Introduced in several park ponds, as at S. Cave Castle*; a wonderful piece of "mimicry," being apparently a miniature yellow waterlily, although of a widely different family.

POLEMONIACEÆ.

1101. **Polemonium cæruleum.** *Linn.*, 5.
(Jacob's Ladder).

Native, Inter., 6, 7. July, III.

Houghton Woods (J.F.R., 1888), but doubtfully wild. Naburn by the River Ouse (H.S.).

BORAGINEÆ.

1102. **Cynoglossum officinale.** *Linn.*, 76.
(Hound's Tongue).

Native, Eng., 6, 7. July I.

Near Market Weighton (B.); Naburn (W.N.C.).

1104. ***Asperugo procumbens.*** *Linn.*

Alien. Hull docks, and other waste ground (J.W. Boult).*

1105. **Symphytum officinale.** *Linn.*, 86.
(Common Comfrey).

Native, Eng., 1, 7. June, II.

Sides of ditches near York and Kexby (B.); near Cottingham;* the River Ouse and Howden Dyke (W.N.C.).

1107. ***Borago officinalis.*** *Linn.*
(Borage).

Alien. Waste ground near Bridlington Quay (B.); Hornsea.*

1109. ***Anchusa sempervirens.*** *Linn.*

Alien. Londesboro' (B.).

A. hybrida. *Ten.*

Alien. Hull Docks.

1110. **Lycopsis arvensis.** *Linn.*, 105.
(Small Bugloss).

Native, Brit., 1-7. July, II.

Common in or near sandy cornfields, as near Brough (G.N.); Cruckley (J.T.H.); amongst the dock aliens, Hull.*

1114. **Myosotis cæspitosa.** *F. Schultz.*, 107.
(Tufted Forget-me-not).

Native, Brit., 1-7. July, III.

In shallow watery places: Skidby;* Newbald.*

1115. **M. palustris.** *Relh.*, 104.
(Forget-me-not).

Native, Brit., 1-7. July, II.

Very common in the Holderness dykes; var. strigulosa, Mert and Koch, at Thistle Bridge, Withernsea (C.W.).

1116. **M. repens.** *G. Don.*, 92.

Native, Brit., 1-7. July, II.

Skidby and Risby fish-ponds.*

1118. **M. sylvatica.** *Hoffm.*, 45.
(Wood Forget-me-not).

Native, Eng., 6. July.

Plantations near Brough,* also gathered in the same locality by Mr. Sam. Mason, of Hull, 1901.

1119. **M. arvensis.** *Lam.*, 112.
(Field Forget-me-not).

Native, Brit., 1-7. July.

Very common in "seed" fields and on stubble.

1120. **Myosotis collina.** *Hoffm.*, 92.

(Early Field Forget-me-not).

Native, Brit., 1-7. May, I.

Frequent; Market Weighton (J.J.M.); Spurn (Mr. A. E. Lynn); also near Selby (W.N.C.).

1121. **M. versicolor.** *Reichb.*, 108.

(Yellow and Blue Forget-me-not).

Native Brit., 1-7. May, IV.

Common in corn-fields, chiefly on the sandy western divisions.

Echinospermum Lappula.

Alien.

Waste ground near Hull Docks.

1123. **Lithospermum officinale.** *Linn.*, 77.

(Common Gromwell).

Native, Brit., 1-7. June, III.

Near Selby and Kirkham; Dunnington (B.); Cornfields near Brandesburton.* also on the dock wastes.*

1224. **L. arvense.** *Linn.*, 86.

(Corn Gromwell).

Colonist, Brit., 1-7. June, III.

Heslington Fields (B.); Selby (W.N.C.); near River Hull in cornfields (C.W.); amongst the dock waste plants.

1125. **Echium vulgare.** *Linn.*, 92.

(Viper's Bugloss).

Native, Brit., 1-7. July, I.

"On the Wolds, frequent" (B); Hessle (G.N.); at Kelsey Hill, Holderness;* Houghton Woods, J. W. Boult;* Kirkham Abbey (M.B.S,); introduced on the dock wastes.

CONVOLVULACEÆ.

1127. **Volvulus sepium.** *Junger.*, 94.
(Great Bindweed).

Native, Eng., 1-7. Aug., I.

Common in hedges in Holderness, and the other divisions.

1128. **V. Soldanella.** *Junger.*, 46.
(Sea-side Bindweed).

Native, Eng., 1, 2. Aug., I.

Along the Holderness coast, amongst the grass on the sandhills; Owthorne (R.T.); abundant near Withernsea and Spurn.*

1129. **Convolvulus arvensis.** *Linn.*, 96.
(Small Bindweed).

Native, Eng., 1-7. July, IV.

Common; roadsides and railway embankments in all divisions in dry places.

1131. **Cuscuta europæa.** *Linn.*, 31.
(Great Dodder).

Colonist, Eng., 7. August.

Hemingbro' (W.N.C.).

1132. **C. Epithymum.** *Murr.*, 46.
(Thyme Dodder).

Native, Eng., 2. August.

Spurn (F. P. Lee).

1133. ***C. Trifolii.*** *Bab.*
(Clover Dodder).

Alien,., 1, 2, 3, 4, 6. August.

Clover field near Hull (Mr. T. Dennis); Spurn (Canon Maddock, 1897); Market Weighton and Londesboro'

(J.J.M., 1899). Frequently found as a garden weed and pest in Welton and Hull nurseries.* Sp. from the latter on ivy *in herb.* (J.F.R.).

SOLANACEÆ.

1134. **Solanum Dulcamara.** *Linn.*, 97.

(Woody Nightshade, or Bittersweet).

Native, Eng., 1-7. June, III.

Very common, in hedges near dykes and in conspicuous companionship with *Tamus communis* in Holderness.

1135. **S. nigrum.** *Linn.*, 64.

(Common Nightshade).

Colonist, Eng., 2, 4, 6, 7. Summer.

Occasionally in cultivated ground; Escrick and York Road, and near South Cave (B.); Sutton-on-Hull (J. W. Boult). An abundant alien at the Hull docks.

S. rostratum.

Physalis Alkekengi. *Linn.*

Aliens at the Hull Docks, the former from U.S.A.; Mr. S. T. Dunn indentifies both.

1136. ***Lycium barbarum.*** *Linn.*

("Tea" Tree).

Alien.

Common near the sea, forming hedges as at Hornsea.

1137. **Atropa Belladonna.** *Linn.*, 54.

(Deadly Nightshade).

Native, Eng., 3, 4. July, II.

Very frequent in the Wold dales. Drewton, Weedley, and Woodale, near South Cave, where the plant becomes very luxuriant, and ripens much of its baneful fruit.

1138. ***Datura Stramonium.*** *Linn.*

Alien.

A garden escape at Riccall (W.N.C.).

1139. **Hyoscyamus niger.** *Linn.*, 79.

(Henbane).

Native, Eng., 1-7. August.

Near Beverley (Dr. Hull, in "Beverlac"); near Bridlington and Pocklington (B.); quite a number of plants near St. Austin's Stone, Drewton Dale (J.F.R., 1898); also found at Paull by Mr. T. Mayman. Very common among the dockside aliens.

SCROPHULARINÆ.

1140. **Verbascum Thapsus.** *Linn.*, 91.

(Great Mullein).

Native, Eng., 2, 3, 4. Aug., III.

Near Beverley (Dr. Hull); Brantingham-dale (H.S.); Wold-dale (C.W., 1892); on the old remains of Haltemprice Abbey, near Cottingham, Oct., 1898.* Also an alien hybrid at the Hull docks.

1143. ***V. nigrum.*** *Linn.*

1144. ***V. virgatum.*** *Stokes.*

1145. ***V. Blattaria.*** *Linn.*

Aliens on the West Dock waste, Hull.

1146. ***Linaria Cymbalaria.*** *Mill.*

(Ivy-leaved Toadflax, or "Mother-of-Thousands").

Alien.

Frequent on old buildings. Londesboro' (Dr. Hull).

1147. **L. Elatina.** *Mill.*, 55.

(Sharp-leaved Toadflax).

Colonist, Eng., 6. Aug., I.

Cornfields, Westholme, near Howden (J.B.), sp.*

1153. **Linaria vulgaris.** *Mill.*, 99.
(Yellow Toad-flax, Snap-Dragon).

Native, Brit., 3, 4. August.

A xerophilous plant common on the chalk, on railway embankments, and on the sandy tracts of Derwentland.

1154. **L. viscida.** *Moench*, 62.
(Least Toad-flax).

Colonist, Eng., 1-7. Summer.

Quite common in the East Riding on stony or gravelly places; Walkington (B.); S. Cave*; near Howden (J.B.).

1155. ***Antirrhinum majus.*** *Linn.*
(Great Snap-Dragon).

Alien.

Hessle chalk pits; an escape, but almost as well established there as the crimson spur-valerian.

1157. **Scrophularia aquatica.** *Linn.*, 72.
(Water Figwort. "Water Betony").

Native, Eng., 1-7. Aug., II.

Very common near most Holderness dykes, and in the other divisions as well; Market Weighton* and Everingham.*

1159. **S. nodosa.** *Linn.*, 109.
(Knotted Fig-wort).

Native, Brit., 2, 4. Aug., II.

Not at all common; near Beverley (Dr. Hull); Burton Constable and Hessle*; always in wood or plantations.

1162. ***Mimulus luteus.*** *Linn.*
(Yellow Mimulus).

Alien.

Driffield Canal, plentiful (C.W.); and near River Hull (J.T.H.), always on muddy or wet, gravelly places.

1163. **Limosella aquatica.** *Linn.*, 43
(Mudwort).

Native, Ger., 7. Aug., IV.

Very rare; one station only near Skipwith, where Mr. H. J. Wilkinson gathered it first in 1883, and subsequently.

1165. **Digitalis purpurea.** *Linn.*, 107.
(Foxglove).

Native, Brit., 3, 4, 6, 7. July, IV.

Rare in the Holderness divisions; common in Derwentland; near Beverley (Dr. Hull); Skipwith Common (W.N.C.). At Aldro on the high wolds.*

1166. **Veronica hederæfolia.** *Linn.*, 100.
(Ivy-leaved Speedwell).

Native, Brit., 1-7. April, III.

Common in cultivated ground, escaping into hedgerows, where the seeds invariably germinate early.

V. polita. *Fr.*, 89.

Colonist, Brit., 1, 2. April to July.

Occasionally in cultivated ground, Cottingham*, Swine.*

1168. **V. agrestis.** *Linn.*, 110.
(Field Speedwell).

Colonist, Brit., 1-7. April to July.

Cornfields and cultivated ground everywhere.

1169. **V. Tournefortii.** *C. Gmel.*, 90.

Colonist, Eng., 1-7. April to July.

Frequent in cultivated places.

1172. **V. arvensis.** *Linn.*, 111.
(Wall Speedwell).

Native, Brit., 1-7. May and June.

Commonly near farm buildings and on old walls of villages.

1173. **Veronica serpyllifolia.** *Linn.*, 112.

Native, Brit., 1-7. May, IV.

Grassy places, common.

1178. **V. officinalis.** *Linn.*, 111.

(Common Speedwell).

Native, Brit., 1-7. June, IV.

Dry ground as on tumuli, or old earthworks as at Skipsea Brough, Holderness. Very large and fine in Birkhill wood.

1179. **V. Chamædrys.** *Linn.*, 111.

(Germander Speedwell. "Bird's-eye").

Native, Brit., 1-7. May, III.

Very common in hedgerows and grassy lanes or roadsides.

1180. **V. montana.** *Linn.*, 89.

(Mountain Speedwell).

Native, Brit., 2, 5. June, IV.

Firby wood (B.); Bentley wood near Beverley; * Birkhill wood near Cottingham,* 1900.

1181. **V. scutellata.** *Linn.*, 107.

(Marsh Speedwell).

Native, Brit., 1-7. July.

In wet places in all three divisions; Market Weighton (J.J.M.); Driffield (C.W.); Skipwith Common (W.N.C.); near Howden (J.B.).

1182. **V. Anagallis-aquatica.** *Linn.*, 100.

(Water Speedwell).

Native, Brit., 1-7. July, IV.

Common in dykes in the Holderness division. Also in Derwentland (J.B.) and (W N.C.).

1183. **Veronica Beccabunga.** *Linn.*, 112.

(Brooklime).

Native, Brit., 1-7. Summer.

Very common in wet shallow dykes.

1184. **Euphrasia officinalis.** *Linn.*, 112.

(Eyebright).

Native, Brit., 1-7. August, I.

Common in dry, chalky, or gravelly ground; var. nemorosa, *H. Mart*, being the commonest.

1185. **Bartsia Odontites.** *Huds.*, 111.

(Red Bartsia).

Native, Brit., 1-7. July.

Roadsides, common; a white flowered variety not uncommon; both vars. verna, *Reichb.* and serotina, *Reichb.* (C.W., *teste* A. Bennett).

1188. **Pedicularis palustris.** *Linn.*, 110.

(Marsh Lousewort).

Native, Brit., 1, 2, 6, 7. Summer.

Common. In boggy places as at Hornsea Mere, Pulfin,* and Skipwith Common (W.N.C.).

1189. **P. sylvatica.** *Linn.*, 112.

(Field Lousewort).

Native, Brit., 1-7. June, I.

Frequent in peaty or damp grassy places; Risby Park; Hall Ings, Cottingham; near Bell Mills, Driffield.

1190. **Rhinanthus Crista-galli.** *Linn.*, 112.

(Yellow-rattle).

Native, Brit., 1-7. June, IV.

In meadows, especially on clay lands.

1191. **Rhinanthus major.** *Ehrh.*, 22.
(Large Yellow-rattle).

Native, Inter., Incognit.
Holme-on-Spalding-Moor and S. Cave (B.) in cornfields; not reported recently.

1194. **Melampyrum pratense.** *Linn.*, 107.
(Yellow Cow-wheat).

Native, Brit., 2, 6.
In woods and copses; near Beverley (R.T.); Birkhill Wood (H.S.) and (G.N.); near Howden (J.B.); still grows abundantly in Birkhill Wood, 1901, although it is by no means common in the E. Riding.

1195. **M. sylvaticum.** *Linn.*, 21.
(Wood Cow-wheat).

Native, Scot., Incognit.
In the woods at Kirkham (B.). No other authority can be given, and confirmation is much desired; probably only M. pratense, var. montanum, *Johnst.*, was found.

OROBANCHACEÆ.

1199. **Orobanche major.** *Linn.*, 61.
(Great Broomrape).

Native, Eng., 2. June, II.
Rare. Near Keyingham, Holderness (J. W. Boult) and (C.W.), growing on roots of furze.

1202. **O. elatior.** *Sutton*, 28.

Native, Ger., 3, 5. July.
Rare; quarry banks near Langton and Welham (M.B.S.).

1205. **O. minor.** *Sm.*, 32.
(Least Broomrape).

Native, Ger., 6. Summer.
Very rare; Wressle (W.N.C.).

1207. **Lathræa squamaria.** *Linn.*, 62.

(Great Toothwort).

Native, Eng., 5. April, IV.

Very rare; Firby Wood, near Leavening (M.B.S.); wood near Kirkham Abbey (B.). The woods and copses in the Eastern divisions have been thoroughly investigated for this plant, but without success, which is remarkable when one remembers its frequency in the other Ridings.

LENTIBULARIEÆ.

1208. **Utricularia vulgaris.** *Linn.*, 86.

(Greater Bladderwort).

Native, Brit., 2, 6, 7. July II.

Frequent, especially in Derwentland; Beverley and Hull (B.); at Staddlethorpe it is abundant in the "delphs"; found two or three years successively in Skidby drain on the Beverley and Hull Road,* 1890; Riccal (W.N.C.).

1210. **U. minor.** *Linn.*, 72.

(Lesser Bladderwort).

Native, Brit., 2, 7. July, I.

Near Beverley (Dr. Hull); several places near Selby (B.); but this species has not recently been noticed.

1213. **Pinguicula vulgaris.** *Linn.*, 93.

(Common Butterwort).

Native, Scot., 1-7. June, II.

Frequent in wet, clayey, and peaty places, both on the coast cliffs and inland; Flamboro' Head; Brough (C.W.); Hall Ings, near Cottingham (H.S.)*; Skipwith Common (W.N.C.).

VERBENACEÆ.

1217. **Verbena officinalis.** *Linn.*, 67.
(Vervain).

Native, Eng., 2. Aug., II.

Only occasionally in dry places; Dunswell Lane, near Cottingham*; no record from any other station.

LABIATÆ.

1221. ***Mentha viridis.*** *Linn.*

Alien.

Well established by the Derwent in Welham Springs (M.B.S.).

1222. **M. piperita.** *Linn.*, 68.
(Pepper Mint).

Native, Eng., 3, 4, 6, 7. Aug., III.

Several places on the Wolds (B); Newbald Springs*, var. officinalis (*Hull*); in ditch side near Elloughton (C.W.) and Newsholme, Wressle (J.B.).

1224. **M. hirsuta.** *Huds.*, 111.
(Water Mint).

Native, Brit., 1-7. Aug., III.

Common in all dykes.

1225. **M. sativa.** *Linn.*, 82.

Native, Brit., 1-7 Aug., I.

Skipwith Common in damp places, 1900.*

1230. **M. arvensis.** *Linn.*, 105.
(Corn Mint).

Colonist, Brit., 1-7. Aug., I.

Common in cornfields, but chiefly in Derwentland.

1231. **Mentha Pulegium.** *Linn.*, 52.

(Penny-royal).

Native, Eng., 7. Aug., IV.

Rare; ponds near Skipwith Church (H.J.W.); the only record.

1232. **Lycopus europæus.** *Linn.*, 95.

(Gipsy-wort).

Native, Brit., 1-7. August.

Common in Dykes and wet places.

1233. **Origanum vulgare.** *Linn.*, 90.

(Common Marjoram).

Native, Brit., 3, 4. Aug., I.

Common in chalk pits and other dry places; Hessle chalk pits*; N. Grimston (M.B.S.).

1234. **Thymus Serpyllum.** *Fr.*, 112.

(Wild Thyme).

Native, Brit., 1-7. July, II.

Wolds and gravelly places; on the chalk slopes at Drewton, Welton, and Thixendale.

1236. **Calamintha Clinopodium.** *Spenn.*, 89.

(Wild Basil Thyme).

Native, Brit., 4, 7. August.

Heslington fields (B.); frequent in old chalk pits; Willerby, Skidby, &c.

1237. **C. arvensis.** *Lam.*, 74.

(Common Basil Thyme).

Native, Brit., 3, 4. July, III.

Langton and Driffield Wold*; Drewton Wold near South Cave.*

1239. **Calamintha officinalis.** *Moench.*, 62.
(Common Calamint).

Native, Eng., 1,.4. Aug., I.
Bishop Burton (B.). Near Hessle (C.W.).

1242. **Salvia Verbenaca.** *Linn.*, 64.
(Wild Clary).

Native, Eng., 5, 6. July, IV.

Kirkham Abbey walls (B.), Allerthorpe (C.W.), and amongst aliens at the Hull docks.*

1243. ***S. pratensis.*** *Linn.*
S. verticillata. *Linn.*
S. controversa. *Ten.*

Aliens. Hull docks, *teste* Mr. S. T. Dunn.

1244. **Nepeta Cataria.** *Linn.*, 58.
(Catmint).

Native, Eng., 7. Sept., III.
By roadside hedges near Selby, 1900.*

1245. **N. Glechoma.** *Benth.*, 102.
(Ground Ivy).

Native, Brit., 1-7. April.

Very common in hedgerows and on drainsides in all divisions. Var. parviflora, *Benth.*, Grimston, Holderness (G.W.).

1246. **Scutellaria galericulata.** *Linn.*, 103.
(Skullcap).

Native, Brit., 1-7. Aug., II.

Frequent in wet places. Salt Ings lane and Willerby lane near Hull; Burton Constable and Rise Park; Hornsea Mere*; and near Welham and Firby on the Derwent (M.B.S.).

1247. **Scutellaria minor.** *Huds.*, 72.
(Lesser Skullcap).

Native, Eng., 7.

Broughton Common (H.F.P. in Bot. Rec. C. Rep.).

1248. **Prunella vulgaris.** *Linn.*, 112.
(Selfheal).

Native, Brit., 1-7. Aug., I.

Frequent in pastures in the western divisions; not so common in Holderness. Gembling near Driffield (J.T.H.).

1250. **Marrubium vulgare.** *Linn.*, 66.
(White Horehound).

Native, Eng., 1-7. Aug., III.

Spurn (C.W.); near South Cave*; at North Cave, on the sand, almost as common as the dead nettles. It seems to be a characteristic arenophile. Not common in Holderness except on the morainic gravels, being the chief plant on Coneygarth Hill, near Brandesburton.

1251. **Stachys Betonica.** *Benth.*, 82.
(Wood Betony).

Native, Eng., 1-7. July, IV.

Not very frequent either in Holderness or on the Wolds. Near Beverley (Dr. Hull); Holme-on-Spalding Moor.* Stunted specimens in flower on what now stands for South Dalton Moor near Cherry Burton, Sept. 1901.*

1253. **S. palustris.** *Linn.*, 111.
(Marsh Woundwort).

Native, Brit., 1-7. Aug., I.

Generally distributed. In damp, bushy places. Near Sutton Drain, Holderness. Near Cottingham (C.W.).

1254. **S. sylvatica.** *Linn.*, 112.
(Hedge Woundwort).

Native, Brit., 1-7. Aug., I.

Common beside hedges or old fences.

1255. **Stachys arvensis.** *Linn.*, 99.
(Corn Woundwort).

Colonist, Brit., 1-7. Summer and Autumn.

On the Wolds; South Cave; Walkington (Dr. Hull); Heslington fields (B.); near Howden (J.B.); Selby (W.N.C.).

1256. ***S. annua.*** *Linn.*

Alien. Near the Hull docks, *teste* Mr. S. T. Dunn.

1257. **Galeopsis Ladanum.** *Linn.* (?).
(Red Hemp-nettle).

Colonist, Eng., 3, 4, 6. August.

Frequent in old chalk pits. Near Willerby and Ripling-ham,* and Howden (J.B.).

1260. **G. versicolor.** *Curt.*, 80.
(Large-flowered Hemp-nettle).

Colonist, Scot., 1-7. July.

Frequent in cornfields near Hull, and also in the Derwent tract.

1261. **G. Tetrahit.** *Linn.*, 112.
(Common Hemp-nettle).

Colonist, Brit., 1-7. August.

In most cornfields and weedy, cultivated places.

Leonurus marrubiastrum. *Linn.*

Alien. Hull docks, *teste* Mr. S. T. Dunn.

1263. **Lamium amplexicaule.** *Linn.*, 96.
(Henbit Dead-nettle).

Colonist, Brit., 1, 6. Summer.

Frequent in sandy fields, Bridlington and Flambro' (J.F.R.); Sandholme (J.B.).

1265. **Lamium hybridum.** *Vill.*, 76.
(Cut-leaved Dead-nettle).

Native, Brit., 2, 4, 6, 7. Summer.

Heslington Fields (B.); Hessle, near Hull,* and near Howden (J.B.).

1266. **L. purpureum.** *Linn.*, 112.
(Red Dead-nettle).

Native, Brit., 1-7. April, II.

Exceedingly common. Var. decipiens, *Sonder*, near Spring Head, Hull,* and Driffield (W.H.B.).

1267. ***L. maculatum.*** *Linn.*
(White-spotted Dead-nettle).

Alien.

Outcast or straggler from gardens near Cottingham.*

1268. **L. album.** *Linn.*, 101.
(White Dead-nettle).

Native, Brit., 1-7. June.

Very common everywhere along grassy roadsides and lanes.

1269. **L. Galeobdolon.** *Crantz.*, 66.
(Yellow Dead-nettle).

Native, Eng., 1, 4, 6, 7. June, II.

Londesbro' Woods (B.); near Beverley (Dr. Hull); Arram; near Howden (J.B.); and Selby (W.N.C.).

1270. **Ballota nigra.** *Linn.*, 77.
(Black Horehound).

Native, Eng., 1-7.

Common on or near the Wolds, particularly in the villages, as at South Cave. Var. fœtida, *Koch*, at Welton (C.W.); at Driffield, an escape from gardens (J.T.H.).

1274. **Teucrium Scorodonia.** *Linn.*, 110.
(Wood Germander).

Native, Brit., 3, 4, 5, 6, 7.

A xerophilons plant found only on the chalk and in sandy places. Flambro' Cliffs, Holme-on-Spalding Moor,* Skipwith (W.N.C.), Howden (J.B.).

1275. **Ajuga reptans.** *Linn.*, 109.
(Common Bugle).

Native Brit., 1-7.

Common in clayey places.

PLANTAGINEÆ.

1273. **Plantago major.** *Linn.*, 112.
(Greater Plantain).

Native, Brit., 1-7. July.

Every roadside.

1279. **P. media.** *Linn.*, 81.

Native, Eng., 3, 4, 6, 7. Summer.

Most frequent in calcareons soil: very common near the Wolds. At South Cave Castle it spoils the lawn.

1280 **P. lanceolata.** *Linn.*, 112.
(Ribwort. "Fighting Cocks," E.R.D.).

Native, Brit., 1-7. June, IV.

All meadows. Var. *b Timbali*, frequent on the waste ground, West Docks, Hull.

1281. **P. maritima.** *Linn.*, 78.
(Seaside Plantain).

Native, Brit., 1, 2, 3, 4, 6. July and Aug.

On the Holderness Coast, but more abundant on the Humber shores near Hull (B.).*

1282. **Plantago Coronopus.** *Linn.*, 96.
(Bucks-horn Plantain).

Native, Brit., 1, 2, 3, 4, 6. Juln, I.

Same as *P. maritima* and rather more common; also on the Wolds and near South Cave (B).

1283. ***P. arenaria.*** *Waldst. and Kit.*

Alien.

Very abundant amongst the dock aliens, Hull.*

1284. **Littorella juncea.** *Berg.*, 94.
(Shoreweed).

Native, Brit., 7. July, III.

Skipwith Common (H.J.W.) the only locality recorded.

ILLECEBRACEÆ.

1290. **Scleranthus annuus.** *Linn.*, 100.
(Knawell).

Native, Brit., 6, 7. July and Aug.

On wall tops and in sandy ground, North Cave.* On Boulder Clay Cliff near North Ferriby. Sandy road on Skipwith Common.

AMARANTHACEÆ.

1292. ***Amaranthus retroflexus.*** *Linn.*

Alien.

Frequent on waste ground, West Dock, Hull (C.W.).*

CHENOPODIACEÆ.

1294. **Chenopodium polyspermum.** *Linn.*, 49.

Denizen, Eng. Aug., IV.

Waste ground near West Dock, Hull. All the Goosefoot family seem to be notorious aliens.

1295. **Chenopodium Vulvaria.** *Linn.*, 37.

Denizen, Ger. Aug., IV.
Waste ground near West Dock, Hull.

1296. **C. album.** *Linn.*, 111.
(White Goosefoot. "Fat-hen," E.R.D.).

Colonist, Brit., 1-7. July, IV.
Very common in rich, cultivated soil.

1297. ***C. opulifolium.*** *Schrad.*

1298. ***C. ficifolium.*** *Sm.*, 18.

Aliens. Waste ground near West Dock, Hull.

1299. **C. murale.** *Linn.*, 42.

Colonist, Eng. Aug., IV.
Docks, Hull.

1301. **C. urbicum.** *Linn.*, 39.
(Upright Goosefoot).

Colonist, Brit., 2, 7. Aug., IV.
Between Fulford and Heslington (B.); Hull Docks.

1302. **C. rubrum.** *Linn.*, 64.
(Red Goosefoot).

Native, Eug., 1, 2, 4, 7. Aug., IV.
Bridlington, Hornsea, &c.; Cottingham and Hessle; Hull Docks.

1304. **C. glaucum.** *Linn.*, 13.

Colonist, Ger. Aug., IV.
Hull Docks.

1305. **Chenopodium Bonus-Henricus.** *Linn.*, 100.
(Good King Henry).

Denizen, Brit., 1-7. July.

Common on roadsides near dwellings.

1306. **Beta maritima.** *Linn.*, 57.
(Wild Beet).

Native, Brit., 2. Aug. and Sept.

On the coast. Sandlemere, Withernsea (C.W.). Among the dockside plants.*

1307. **Atriplex littoralis.** *Linn.*, 42.

Native, Brit., 1, 2, 4, 5. August.

Common. On the Holderness coast, along the Humber shore, and at Spurn.*

1308. **A. patula.** *Linn.*, 92.

Native, Brit., 1, 2, 4, 5, 6. August.

Near Hull (B.); var. erecta, *Huds.*, on a wall at Welton (C.W.).

1309. **A. hastata.** *Linn.*, 95.

Native, Brit., 7. August.

Heslington Fields (B.).

1310. **A. deltoidea.** *Bab.*, 53.

Native, Brit., 2. August.

Waste ground near Hull (B. sup., C. C. Babington).

1311. **A. Babingtonii.** *Woods*, 70.
(Spreading-fruited Orache).

Native, Brit., 1, 2. August.

Hessle and near Hull on the Humber bank; var. virescens *Lange*, at Withernsea (C.W., *teste* Mr. Ar. Bennet).

1313. **Atriplex portulacoides.** *Linn.*, 35.
(Shrubby Sea-Purslane).

Native, Eng., 1, 2. Aug., IV.
Near Hull (B. sup., J. Kitching), Spurn,* Paull.*

Corispermum hyssopifolium. *Linn.*

Alien. Hull Docks, *teste* Mr. S. T. Dunn.

1315. **Salicornia herbacea.** *Linn.*, 70.
(Glass-wort. "Samphire").

Native, Brit., 2. Aug., IV.
Muddy, brackish-water places; on the Humber mud flats, Spurn, Paull, &c. Still sold in Hull market as Samphire.

1318. ***Suæda altimissima.*** *Pall.*

Alien.
Hull dock waste ground. Mr. S. T. Dunn identifies.

1319. **S. maritima.** *Dum.*, 70.
(Sea-blite).

Native, Brit., 2. Aug., III.
Spurn, and frequently on the Humber shore, var. procumbens, *Syme*, Spurn (C.W., *fide* Mr. Ar. Bennett).

1320. **Salsola Kali.** *Linn.*, 64.
(Prickly Saltwort).

Native, Brit., 1, 2, 5. Aug., II.
Frequent all along the coast on the sands, var. Tragus, alien at Hull docks.

POLYGONACEÆ.

1321. **Polygonum Convolvulus.** *Linn.*, 111.
(Climbing Knot-grass. "Cornbind," E.R.D.).

Colonist, Brit., 1-7. August.
Common in cornfields.

1323. **Polygonum aviculare.** *Linn.*, 111.
(Common Knot-grass).

Native, Brit., 1-7. August.

Common in clayey fields in several of its varieties; vars. vulgatum, *Syme*, and arenastrum, *Bor.*, Welton (C.W.); var. rurivagum, *Jord.*, on waste ground amongst a host of *Chenopodia* near West Dock, Hull.

1326. **P. Hydropiper.** *Linn.*, 105.
(Biting Persicaria or Water Pepper).

Native, Brit., 1-7. Aug., III.

Frequent in all divisions, Seaton Ross, Marton near Burton Constable, &c.

1327. **P. minus.** *Huds.*, 52.
(Creeping Persicaria).

Native, Eng., 2.

Woodmansey, near Beverley (R.T.). Specimens named *minus* in Young's collection are only small forms of *P. Hydropiper* (J.F.R.). We have not confirmed the record of this plant.

1329. **P. Persicaria.** *Linn.*, 112.
(Knot-grass).

Native, Brit., 1-7. August.

In cultivated places abundant. Var. b. elatum (*Gren.* and *Godr.*) amongst the Hull dock aliens.

1330. **P. lapathifolium.** *Linn.*, 103.
(Pale-flowered Knot-grass).

Native, Brit., 1-7. August.

Heslington Fields (B.), near Hull and Hedon. Abundant and luxuriant on the dock wastes.

1332. **P. amphibium.** *Linn.*, 108.
(Willow-grass).

Native, Brit., 1-7. July, III.

Common in ponds, drains, and dykes. Var. terrestre, *Leers.*, not infrequent.*

1333. **Polygonum Bistorta.** *Linn.*, 74.

(Common Bistort or Snakeweed).

Native, Brit., 2, 4, 6, 7. July.

Near Beverley (Dr. Hull); Londesboro' (B.); Fulford Ing (W.W.); Cottingham (G. A. Hill)*; Swine and Marfleet (R. H. Philip); in Derwentland (W.N.C. and J.B.).

1335. ***Fagopyrum esculentum.*** *Moench.*

(Buckwheat).

Alien.

Escrick, an escape (W.N.C.). Near the Hull docks.*

1337. **Rumex conglomeratus.** *Murr.*, 96.

(Sharp Dock).

Native, Brit., 1-7. July.

Frequent. Sides of springs, on slopes of Wold at South Cave, 1898; Gembling near Driffield (J.T.H.); Wansford near Driffield Canal.*

1339. **R. sanguineus.** *Linn.*, 90.

(Blood-veined Dock).

Native, Brit., 1-7. July.

Fairly frequent. Weedley Dale near South Cave;* Londesbro' "very frequent" (B.). Var. viridis, *Sibth.*, at Hornsea and Risby Park (C.W.), and at Withernsea. The type fine near Sand-le-mere (Sp., C.W., 1899).*

1340. **R. maritimus.** *Linn.*, 39.

(Golden Dock).

Native, Eng., 2, 6, 7. August.

Marshes. Woodmansey (R.T.). R.T. also includes R. aureus for this station. Riccall (W.N.C.); old brick-field ponds with brackish water near Dairycoates, Hull (Mr. S. Mason, 1901).*

1343. **Rumex obtusifolius.** *Linn.*, 109.
(Common Dock).

Native, Brit., 1-7. July, IV.

The commonest Dock. By roadsides and in half-cultivated places.

1344. **R. crispus.** *Linn.*, 111.
(Curled Dock).

Native, Brit., 1-7. July.

Vies with R. obtusifolius in frequency. Both vars. sub cordatus, *Warren*, and elongatus, *Guss.*, are frequently conspicuous near or in dykes.*

1346. **R. Hydrolapathum.** *Huds.*, 71.
(Great Water Dock).

Native, Eng., 1, 2, 5, 6, 7. Aug., II.

Frequent in Holderness. Dykes near Hull, Hornsea Mere, and R. Hull near Beverley; near Selby (W.N.C.).

1348. **R. Acetosa.** *Linn.*, 112.
(Common Sheep's Sorrel. "Green-sauce," E.R.D.).

Native, Brit., 1-7. June, III.

Common in all divisions.

1350. **R. Acetosella.** *Linn.*, 112.
(Sheep's Sorrel).

Native, Brit., 1-7. June, III.

Common on the sandy parts of Derwentland; occasionally also in Holderness near Swine (J.F.R.).

THYMELÆACEÆ.

1354. **Daphne Laureola.** *Linn.*, 51.
(Common Spurge Laurel).

Native, Eng., 1, 2, 3, 3, 7. March, IV.

Londesboro' woods (B.); hedge near Burton Constable;* hedges at Easington, Holderness;* hedges on the Wolds and in the Derwentland, as near Brantingham.*

ELÆAGNACEÆ.

1355. **Hippophae rhamnoides.** *Linn.*, 7.

(Sea Buck-thorn).

Native, Ger., 2. May, III.

Abundant on the sandy peninsula of Spurn, being the principal shrub there. This is the "dune thorn" of the Dutch islands.

LORANTHACEÆ.

1356. **Viscum album.** *Linn.*, 40.

(Mistletoe).

Native, Eng., 2, 4, 6. April.

Occasionally in gardens on apple trees. West Ella;* Hull Bank House; the vicarage garden, Sproatley; and formerly on hawthorn in Green Lane, Newland, Hull (now extinct, the tree having been cut down); much on apple-trees at Dunswell, April, 1902*; Kedlington (J.B.). The late Col. Haworth-Booth informed the writer that people still came begging for the plant to make decoctions for the cure of epilepsy, and considered it generally efficacious!

EUPHORBIACEÆ.

1359. **Euphorbia Helioscopia.** *Linn.*, 112.

(Sun Spurge).

Colonist, Brit., 1-7. Summer.

Common in cornfields and gardens.

1360. **E. platyphyllos.** *Linn.*, 28.

Native, Eng. August.

Once near Sayce Farm on R. Hull, but probably introduced with corn.*

1368. ***Euphorbia Cyparissias.*** *Linn.*
(Cypress Spurge).

Alien. June, IV.
"One mile from Hornsea on the road to Hull" (B.). It is often planted in gardens.*

1371. **E. Peplus.** *Linn.*, 105.
(Garden Spurge).

Colonist, Brit., 1-7. Summer and Autumn.
Very common on waste places near cultivation.

1372. **E. exigua.** *Linn.*, 83.
(Dwarf Spurge).

Colonist, Eng., 1-7. August.
Like the last.

1375. **Mercurialis perennis.** *Linn.*, 107.
(Dog's Mercury).

Native, Brit., 1-7. April, IV.
Common in copses and thick hedgerows.

1376. ***M. annua.*** *Linn.*, 42.
Alien. Autumn.
Occasionally near the docks, Hull. Mr. J. W. Boult.*

Ricinus communis.
(Castor Oil).

Alien.
Docks, and near oil mills, Hull.

URTICACEÆ.

1377. **Ulmus montana.** *Stokes.*, 98.
(Wych Elm).

Native, Brit., 1-7. March, III.
In hedges. Common.

1378. **Ulmus surculosa.**

(Common Elm. "Oum," E.R.D.).

Denizen, Eng. March, III.

Much in evidence, and some big specimens in the Holderness divisions, the corky variety, suberosa, *Ehrh*, being common, as at Burton Constable, Wansford, Bilton-in-Holderness, and Thixendale.

1379. **Humulus Lupulus.** *Linn.*, 86.

(Hop).

Denizen, Eng., 1-7. August, IV.

Frequent in hedges in the E. Riding, Cottingham,* Barlby, &c. (W.N.C.), near Howden (J.B.). Crops of this plant were formerly grown near Selby.

1380. **Urtica dioica.** *Linn.*, 112.

(Stinging Nettle. "Tenging Nettle," E.R.D.).

Native, Brit., 1-7. August.

Common everywhere near dwellings or remains of dwellings. Var. angustifolia, *A. Blytt.*, occasionally.

1382. **U. urens.** *Linn.*, 108.

(Small Nettle).

Native, Brit., 1-7. July and August.

Roadsides near villages and farms.

1383. **Parietaria officinalis.** *Linn.*, 94.

(Wall Pellitory).

Native, Brit., 2, 5, 6, 7. August.

Not common. Beverley (Dr. Hull), Cottingham and other old churches. Kirkham Abbey (M.B.S.). In Derwentland (W.N.C. and J.B.).

MYRICACEÆ.

1384. **Myrica Gale.** *Linn.*, 85.

(Bog Myrtle).

Native, Brit., 6, 7. June, III.

Langwith, near York (B.), Houghton Moor (G.N.). Sp. *in herb.* (Hull district), J. F. Young. Is it found in the E. Riding to-day?

CUPULIFERÆ.

1385. **Betula verrucosa.** *Ehrh.*, 109.

(White Birch).

Native, Brit., 1-7. May, III.

Occasionally in woods.

1386. **B. pubescens.** *Ehrh.*, 71.

Native, Brit., 1-7. May, III.

Frequent in hedges in all the districts.

1389. **Alnus glutinosa.** *Medic.*, 110.

(Alder. "Eller," E.R.D.).

Native, Brit., 1-7. April, I.

Not very common in Holderness, but at Hornsea Mere and other damp situations. Common near Market Weighton, Selby, and Leavening. It grows well in the Hull parks.

1390. **Carpinus Betulus.** *Linn.*, 37.

(Hornbeam).

Native (or Denizen?), Eng., 3. May, IV.

Some old trees near Little Weighton in hedgerows.* The tree fruits well at Anlaby in shrubberies, and its nuts are eagerly devoured by certain finches (Mr. John Porter).

1361. **Corylus Avellana.** *Linn.*, 111.

(Hazel. "Filbert," E.R.D.).

Native, Brit., 1-7. March, III.

General in copses all over the Riding.

1392. **Quercus Robur.** *Linn.*, 105.

(Oak).

Native, Brit., 1-7. May, III.

Common in woods and old lanes in Holderness and Derwentland; less frequent on the Wolds. Some fine trees in Everingham Park, near Saltmarsh, and at Burton Constable. Both vars., a. pedunculata and c. sessiliflora, are frequent.

1393. **Castanea sativa.** *Mill.*

Denizen, Eng., 1-7. June, I.

Growing well into fine trees on the Wolds, as at Mount Airy, South Cave.

1394. **Fagus sylvatica.** *Linn.*, 67.

(Beech).

Native, Eng., 1-7. May, II.

The tree of the Wolds, and, although much planted now, is most likely aboriginal, as on the chalk farther south. Ptolemy's place-name, "Petuaria"=beech groves, is a likely one for Beverley or Brough (Mr. J. R. Boyle), where beech groves are common enough.

SALICINEÆ.

1395. **Salix triandra.** *Linn.*, 68.

Native, Eng., 1, 2, 7. May, III.

Hornsea Mere (C.W.);* near Selby (W.N.C.).

1396. **Salix pentandra.** *Linn.*, 58.
(Bay-leaved Willow).

Native, Scot., 1, 2, 6, 7. May, IV.

Sides of rivers, &c., near Beverley (R.T.); frequent near Hull (B); near Arram, Pulfin Bog*; Selby (W.N.C.); Howden (J.B.); Driffield, King's Mill (J.T.H.).

1397. **S. fragilis.** *Linn.*, 90.
(Crack Willow).

Native, Brit., 1, 2, 6, 7. May, III.

Frequent near Hull; this and the next always on the sides of drains and streams.

1398. **S. alba.** *Linn.*, 92.
(White Willow).

Native, Brit., 1-7. May, III.

Common and large near Hull and Beverley, and small the other divisions.

1399. **S. cinerea.** *Linn.*, 106.
(Sallow).

Native, Brit., 1-7. May, IV.

Frequent Market Weighton and near Cottingham.*

1400. **S. aurita.** *Linn.*, 106.

Native, Brit., 1-7. April, IV.

Elloughton, &c., common.

1401. **S. Caprea.** *Linn.*, 106.
(Goat Willow. Catkins="Palms").

Native, Brit., 1-7. April, IV.

Weedley Springs near South Cave.

1402. **Salix repens.** *Linn.*. 98.
(Dwarf Silky Willow).

Native, Brit., 1, 2, 6, 7. May, IV.

Frequent on the moors and commons. Houghton Moor, "ambigua;" on Skipwith Common (H.F.P. Record Club Reports); the form *argentea* very fine in the last mentioned locality.*

1405. **S. viminalis.** *Linn.*, 88.
(Osier Willow).

Native, Brit., 1-7. May, IV.

Very common. Osiergarths where this species is cultivated are frequent in the Holderness part of the Riding.

1411. **S. purpurea.** *Linn.*, 76.
(Purple Osier).

Native, Brit., 2, 6. May, I.

About Beverley (R.T.); in the low grounds between Beverley and Hull (B); Market Weighton, 3rd April, 1899; purpurea x viminalis, Dunswell Lane (C.W. and J.F.R.).

1412. **Populus alba.** *Linn.*, 60.
(Great White Poplar).

Denizen, Eng. April, I.

Common. Growing well in the damper situations.

1413. **P. canescens.** *Sm.*, 48.
(Grey Poplar).

Denizen, Eng., 1, 2. April, I.

Frequently found in hedges of old lanes. Inglemire Lane, near Hull.* Cottingham,* &c.

1414. **P. tremula.** *Linn.*, 105.
(Aspen).

Native, Brit., 1-7. April, III.

Fairly frequent, but the glabrous variety is most noticeable.*

1415. ***Populus nigra.*** *Linn.*
(Black Poplar).

Alien.

Large Tree. Frequent near Hull, as on Cottingham Lane.

CERATOPHYLLEÆ.

1417. **Ceratophyllum demersum.** *Linn.* (?).
(Common Hornwort).

Native, Eng., 1, 2, 6. June, IV.

Market Weighton Canal and Hornsea Mere (Y.N.U.). Arram Beck (1898). River Hull at Wansford.* Ponds at Marfleet, near Hull (C.W.).*

CONIFERÆ.

1421. **Taxus baccata.** *Linn.*, 52.
(Yew).

Native, Eng., 1-7. March, III.

Frequent, but always in cultivated places, and I think it is never truly wild in the East Riding.

1422. **Pinus sylvestris.** *Linn.*, 17.
(Scotch Fir).

Native, Scot., 1, 2, 6, 7. May, IV.

Frequent, and in many cases only a denizen; but on Skipwith Common it is native (W.N.C.). The stumps are often met with in post-glacial "forest beds," as at Chalk Lane brickpond within the borough of Hull.*

HYDROCHARIDEÆ.

1424. **Elodea canadensis.** *Michx.*
(Water Thyme, Canadian Pondweed).

Denizen, Atlantic. August.

Common in the dykes and drains, but scarcely so conspicuous as it was a dozen years ago.

1425. **Hydrocharis Morsus-ranæ.** *Linn.*, 47.

(Frog-bit).

Native, Eng., 1, 2, 6, 7. July, III.

Not common. Beverley and Hull (B.); Inglemire Lane (G.N.); Salt-ings Lane, Hull.* It still grows on the last station (1898), but is doomed to extinction in the not far distant future. Near Selby (W.N.C.); Howden (J.B.).

1426. **Stratiotes Aloides.** *Linn.*, 15.

(Water-Soldier).

Native, Eng. July, II.

Rare. Near Beverley and in the River Derwent (B.). For many years it grew luxuriantly in a brickpond within the borough of Hull, where it had been transplanted from a Park tank; but the pond is now filled up and nearly built upon.

ORCHIDEÆ.

1430. **Neottia Nidus-avis.** *Rich.*, 86.

Native, Brit., 5. June, III.

Wood near Kirkham Abbey on the Derwent (M.B.S.); the only record.

1431. **Listera cordata.** *R.Br.*, 58.

Native, Scot., 7. June.

Very rare; "Wood 4 miles East of York" (B.); in a Fir-wood near Langwith, Silvanus Thompson; and the same place, Mr. H. R. Moiser, 1875 (W.W.), the only station.

1432. **L. ovata.** *B.Br.*, 105.

(Tway blade).

Native, Brit., 1-7. June, II.

Common in woods and grassy places in all the divisions; preferring clayey situations with us.

1436. **Goodyera repens.** *R.Br.*, 18.
(Creeping Goodyera).

Native, Scot., 6. July, IV.

Very rare ; only known in one place in Houghton Woods, where it was first discovered by Mr. J. J. Marshall, at a meeting of the Y.N.U., Aug., 1888.* From the fact that several northern species grow in this neighbourhood, we are inclined to think that this is truly native. The notion that it may have been imported with fir seedlings should surely apply also to the Maianthemum in Forge Valley, *Cornus suecica* at the Hole of Horcum (North Riding). Mr. J. J. Marshall informs me that several northern mosses also occur near the *Goodyera* station.

1441. **Epipactis latifolia.** *All.*, 86.
(Broad-leaved Helleborine).

Native, Brit., 1, 2, 3, 4, 7. Aug., II.

Common in woods on the chalk, as well as on the glacial drift of Holderness. Bentley, near Beverley ;* Burton Constable ;* near Selby (W.N.C.).

1442. **E. media.** *Fr.*, 38 (?)

Native, Eng., 1. Aug.

Grimston, Holderness (G.W., Bot. Record Club, 1882).

1445. **E. palustris.** *Crantz.*, 64.
(Marsh Helleborine).

Native, Eng., 1, 2, 4. July, III.

Uncommon. Heslington fields (B) ; Wold-dale bottom, first found by Miss Mabel Oliver, 1892. By the River Hull, near Driffield (C.W.), July, 1897 ;* near King's Mill (J.T.H.), 1898 ;* at the "Pulfin," River Hull, 1900.*

1447. **Orchis pyramidalis.** *Linn.*, 63.
(Pyramidal Orchis).

Native, Ger., 3, 4, 7. Aug., I.

Very common on the chalk, as at Hessle.* Also on the oolitic outcrop near Sonth Cave.*

1448. **Orchis ustulata.** *Linn.*, 43.
(Dwarf Orchis).

Native, Ger., 1-7. May, IV.

In meadows and pastures frequent. At Brantingham Dale (G.N., 1850); Brough (Y.N.U., 1901); Arras (J.J.M.); Hornsea Mere (C.W., 1895), where I also saw it in 1898; Fulford Ings (H.S.); Barlby, near Selby (W.N.C.); Kenneythorpe (M.B.S.).

1452. **O. Morio.** *Linn.*, 63.
(Green-winged Meadow Orchis. "Crowfeet," E.R.D.).

Native, Eng,, 1-7. May, IV.

Very common in pastures in Holderness and Derwentland, with many varieties of colouring from white and cream to dark purple.

1453. **O. mascula.** *Linn.*, 106.
(Early Purple Orchis. "Crowfeet")

Native, Brit., 1-7. May, II.

Very common in copses and woods. The first orchis to flower in East Riding.

1455. **O. incarnata.** *Linn.*, 67.

Native, Brit., 1, 2, 6, 7. July, I.

In damp places, as at Hornsea Mere, Pulfin Bog, and Driffield; var. angustifolia *Bab.* at Staddlethorpe, 1878 (W.W.); much commoner with us than *O. latifolia*, of which it is supposed by some to be a variety.

1456. **O. latifolia.** *Linn.*, 42 (*Agg.*, 105).
(Marsh Orchis).

Native, Brit., 1, 2, 6, 7. July, II.

The same as for *O. incarnata*, only much less frequent.

1457. **Orchis maculata.** *Linn.*, 108.
(Spotted Orchis).

Native, Brit., 1-7. July.

Common in all the divisions in meadows and grassy places.

1459. **Ophrys apifera.** *Huds.* 59.
(Bee Orchis).

Native, Eng., 1, 2, 3, 4. July, I.

Rare; chiefly on the chalk. Hessle Cliff (G.N.); Mr. Fierké and myself first found it at Hessle, 27th June, 1898,* where, however, we had heard it was found years ago; the Warren, Kilnsea near Spurn (Mr. W. Wood, of Hull); Settrington and Mennythorpe (M.B.S.); near railway, Driffield (W.H.B., 1895); and in July, 1901, Messrs. MacLean and Waterfall found a big clump of it at Kelsey Hill gravel pit, Holderness.

1462. **O. muscifera.** *Huds.*, 43.
(Fly Orchis).

Native, Eng., Incognit.

Rare. "About Hessle" (B.), not recently confirmed. Has not "*apifera*" been meant, of which Baine has no record for Hessle?

1464. **Habenaria conopsea.** *Benth.*, 98.
(Clove Orchis).

Native, Brit., 2, 6, 7. July, II.

Rare. Very sparingly in Heslington fields; at Fulford Ings the large fetid form again found by W. Whitwell, 1877; Brough gravel-pits (E.A.P.); Cottingham Common, 1850 (G.N.). The last locality is now nearly all cultivated.

1467. **H. viridis.** *R.Br.* 97.
(Frog Orchis).

Native, Brit., 1, 2, 5, 6, 7. July, III.

Common, especially on clay. Hornsea, Lowthorpe, &c.; Heslington fields (B. and H.S.); near River Derwent (M.B.S.).

1468. **Habenaria bifolia.** *R.Br.*, 89.
(Butterfly Orchis).

Native, Brit., 2, 6, 7. July, III.
Not common. Skipwith Common (W.N.C.); Pocklington (Y.N.U.), and Brantingnam Dale near Brough; Birkhill Wood near Beverley (G.N. and E.A.P.).

1469. **H. chloroleuca.** *Ridley*, 87.
(Butterfly Orchis).

Native, Brit., 5. July, III.
Rare. Damp places in Howsham Wood (M.B.S.).

IRIDEÆ.

1471. **Iris fœtidissima.** *Linn.*, 49.

Native, Eng., 2.
Beverley (Druce, Record Club). Not likely native here, with all respect to the said record.

1472. **I. Pseudacorus.** *Linn.*, 112.
(Yellow Iris, or Flag).

Native, Brit., 1-7. June, III.
Common in dykes in all the divisions. Great beds in marshy places near the River Hull and its tributary streams at Driffield.*

1476. ***Crocus vernus.*** *All.*
(Purple Spring Crocus).

Alien. Meadows near Beverley (J.J.M., 1898).

AMARYLLIDEÆ.

1481. **Narcissus Pseudo-narcissus.** *Linn.*, 76.
(Daffodil, Lent-Lily).

Native, Eng., 2, 3, 5, 6. April, I.
Near River Derwent at Kirkham (B.); Wressle (W.N.C.); Boynton Woods and Valley of Gipsy Race, near Bridlington, 1898*; Hotham Woods (Mr. G. H. Hill).

1486. **Galanthus nivalis.** *Linn.* ?.
(Snowdrop).

Denizen, 1-7. March, II.

Hedge sides. North Burton Road, E. R. (M.H.); Fulford, Heworth, and Kexby, near York (B.), and many places in fields and copses. Not likely truly native. Welton Dale (C.W.).

DIOSCOREÆ.

1489. **Tamus communis.** *Linn.*, 69.
(Black Bryony).

Native, Eng., 1-7. June, II.

Very common in all the divisions, chiefly scrambling over hedges. Marton-in-Holderness, West Ella, Selby (W.N.C.); near Howden (J.B.).

LILIACEÆ.

1490. ***Ruscus aculeatus.*** *Linn.*, 29.
(Butcher's Broom).

Alien.

Introduced or an escape from shrubberies, as at Brough.

1493. **Polygonatum multiflorum.** *All.*, 32.
(Common Solomon's Seal).

Native, Eng., 4. June, IV.

In woods near Welton; almost certainly not wild here.

1496. **Convallaria majalis.** *Linn.*, 58.
(Lily of the Valley).

Native, Ger., 3, 5. May, III.

Only in the wooded dales of the small streams from the N. Wolds, that are tributary to the Derwent (M.B.S.).

1499. **Allium Scorodoprasum.** *Linn.*, 17.
(Sand Garlic).

Native, Inter, 2, 6, 7. June, II.

Not very frequent. Heslington fields, Fulford (B.); near R. Hull, 1½ miles from Stoneferry (C.W., 1897*); Barlby near Selby (W.N.C.).

1501. **A. vineale.** *Linn.*, 79.
(Crow Garlic).

Native, Eng., 2, 7. June, III.

Frequent. Fulford Ings and Heslington Ings (B.); banks of R. Hull at Weel*; Stoneferry (C.W.); Barlby (W.N.C.).

1502. **A. oleraceum.** *Linn.*, 51.
(Field Garlic).

Native, Ger., 7. July, II.

Fulford Ings (B.); South Cave*; Barlby (W.N.C.).

1503. ***A. carinatum.*** *Linn.*

Alien. Barlby (W.N.C.).

1504. **A. Schœnoprasum.** *Linn.*, 7.
(Chives).

Native, Local, 1. July.

Beverley Westwood (J.J.M.). Was it really native here, or probably only on the site of an old garden?

1508. **A. ursinum.** *Linn.*, 108.
(Broad-leaved Garlic, or Ransoms).

Native, Brit., 1-7. May, IV.

Common in damp copses in all divisions.

1512. **Scilla festalis.** *Salisb.*, 112.
(Wild Hyacinth. "Bluebell").

Native, Brit., 1-7. May, IV.

Very common in woods, copses, and old hedgerows; often white, as at Garton in Holderness (C.W.).

1513. ***Ornithogalum nutans.*** *Linn.*

(Drooping Star of Bethlehem).

Alien. May, III.

Foot-road from York to Heslington (B.).

1514. **O. umbellatum.** *Linn.*

Denizen, Eng. May, III.

Kelsey gravel pits, S. Holderness, near the railway (J. W. Boult, 1900); probably an escape or outcast from garden.

1518. ***Fritillaria Meleagris.*** *Linn.*, 20.

(Fritillary, or Snake's-head).

Alien.

Riccall (W.N.C.), a garden escape.

1520. **Gagea fascicularis.** *Salisb.*, 42.

(Yellow Star of Bethlehem).

Native, Inter., 3, 7. April, III.

St. Leonard's Ings at Elvington (B.); Leavening (M.B.S.). The only records.

1522. **Colchicum autumnale.** *Linn.*, 40.

(Meadow Saffron, Autumn Crocus, "Fog" Crocus).

Native, Eng., 1, 6, 7. Sept., III.

Frequent. Fulford Ings and South Dalton (B.), where it still grows plentifully*; Woodhall near Wressle (J.B.); banks of R. Ouse (W.N C.).

1523. **Narthecium Ossifragum.** *Huds.*, 95.

(Bog Asphodel).

Native, Brit., 6. Aug., I.

Rare in the E. Riding, but I gathered fine specimens in a swampy place in Houghton Woods, August, 1888. This is the only record.

1525. **Paris quadrifolia.** *Linn.*, 73.

(Herb Paris).

Native, Brit., 2, 4, 6, 7. June, II.

Not common. Skidby chalk pit copses (G.N.); Bentley Wood near Beverley (E.A.P.); woods between Market Weighton and Beverley (J.J.M.). Confirmed in the second station, July, 1901.*

JUNCACEÆ.

1526. **Juncus bufonius.** *Linn.*, 112.

(Toad Rush).

Native, Brit., 1-7. July.

Common in ditches and wet places, often by roadsides.

1528. **J. squarrosus.** *Linn.*, 107.

(Goose Corn).

Native, Brit., 1-7. July, I.

Only on Derwentland heaths and commons. Holme River Head Wood (J.J.M.),* and Skipwith Common (W.N.C.).*

1530. **J. Gerardi.** *Loisel*, 99.

Native, Brit., 1, 2, 4, 6. July, I.

Very common on the shores of the Humber from Hessle to Spurn.*

1534. **J. glaucus.** *Leers*, 90.

(Hard Rush).

Native, Eng., 1-7. July, III.

Common in wet places.

1535. **J. effusus.** *Linn.*, 112.

(Common Rush).

Native, Brit., 1.7. July, III.

1536. **Juncus conglomeratus.** *Linn.*, 112.

(Common Rush).

Native, Brit., 1-7. July, III.

1539. **J. supinus.** *Mœnch*, 107.

(Lesser-jointed Rush).

Native, Brit., 1-7. July, III.

1542. **J. lampocarpus.** *Ehrh.*, 110.

(Black Rush).

Native, Brit., 1-7. July IV.

1544. **J. acutiflorus.** *Ehrh.*, 111.

Native, Brit., 1-7. July, IV.

This and the four preceding species are common near ponds and in damp ground in all the divisions.

1550. **Luzula vernalis.** *DC.*, 108.

Native, Brit., 2. June IV.

Only recorded for Birkhill Wood, near Cottingham (*1901) where it is not very abundant.

1551. **L. maxima.** *DC.*, 108.

(Great Wood-rush).

Native, Brit., 2. June, IV.

Same as above, but much more abundant, and first discovered there in July, 1900.*

1554. **L. campestris.** *DC.*, 107.

(Field Wood-rush).

Native, Brit., 1-7. May, III.

Very common in pastures.

1555. **Luzula erecta.** *Desv.*, 107.
(Many-headed Wood-rush).

Native, Brit., 1-7. May III.

Also common, but affecting hedgerows and grassy lanes; vars. umbellata and congesta, near Swine, Holderness.

TYPHACEÆ.

1556. **Typha latifolia.** *Linn.*, 81.
(Great Cat's-tail. "Bullrush").

Native, Brit., 1-7. July, III.

Frequent in disused brick-ponds and sluggish dykes in all divisions; Hornsea, Kelsey Hill Ponds, Leckonfield, Houghton Moor, &c.

1557. **T. angustifolia.** *Linn.*, 58.
(Lesser Cat's-tail).

Native, Eng., 1, 2, 5, 6, 7. July, III.

Frequently found with T. latifolia, but generally very sparingly. Near Pocklington (B.); Houghton Moor (Y.N.U.); Kelsey gravel pits, near Keyingham*; Hornsea Mere (C.W.), 1897.*

1558. **Sparganium ramosum.** *Huds.*, 30; *Agg.*, 108.
(Bur-reed).

Native, Brit., 1-7. July, II.

Very common in ponds and dykes in all divisions.

1560. **S. simplex.** *Huds.*, 99.

Native, Brit., 1-7. Aug., II.

Common in dykes in all the divisions.

1562. **S. minimum.** *Fr.*, 54.
(Floating Bur-reed).

Native, Brit., Incog.

As S. natans, rare. In ditches on Swine Moor near Beverley (R.T), not seen recently; with many other species now probably extinct.

AROIDEÆ.

1563. **Arum maculatum.** *Linn.*, 84.

(Spotted Arum. "Lords and Ladies," "Bulls and Cows," "Parson in Pulpit," Holderness, and certain other very unsavoury names).

Native, Eng., 1-7. May, II.

Very common in woods and hedgerows in all the divisions.

1565. **Acorus Calamus.** *Linn.*, 31.

(Sweet flag).

Native, Eng., 3. June, III.

Rare in localities; the old ponds at Risby, near Beverley (R.T.). It still grows here abundantly but flowers only sparingly, 1898*; near Kirkham Abbey (M.B.S.).

LEMNACEÆ.

1566. **Lemna trisulca.** *Linn.*, 73.

(Ivy-leaved Duckweed).

Native, Eng., 1-7. July, I.

Very common in stagnant dykes, especially in Holderness. All four species of Lemna may frequently be found growing together and flowering near Howden and on Skipwith Common (W.N.C.).

1567. **L. minor.** *Linn.*, 106.

(Lesser Duckweed).

Native, Brit., 1, 7. July, I.

Very common.

1568. **L. gibba.** *Linn.*, 53.

Native, Eng., 1-7. July, I.

Frequent. Ditches near Beverley (B.) and Hull.* Meaux Abbey,* Hornsea Mere, and Preston.

1569. **Lemna polyrrhiza.** *Linn.*, 59.
(Greater Duckweed).

Native, Eng., 1, 2, 6, 7. July I.

Frequent. Ponds near Beverley (B.); old fish ponds at Swine (J. W. Boult)*; Hornsea (C.W.)*; near Selby (W.N.C.).

ALISMACEÆ.

1571. **Alisma Plantago-aquatica.** *Linn.*, 100.
(Water Plantain).

Native, Brit., 1-7. July II.

Very common in all dykes.

1572. **A. ranunculoides.** *Linn.*, 87.
(Lesser Water Plantain).

Native, Brit., 1, 2, 6, 7. July, IV.

Frequent in similar localities to the above. Inglemire Lane (G.N.) 1850; Kelsey Hill Ponds (C.W.); Salt-Ings and Dunswell Lane dykes (J.F.R.); Skipwith Common (W.N.C.); near Howden (J.B.).

1573. **Elisma natans.** *Buchen*, 14.
(Floating Water Plantain).

Native, Local, Incognit.

Very rare. In the "Lake at Hornsea" (R.T.), now probably extinct, as it has only been once seen since Teesdale's day (B. sup.). I doubt very much that it has ever existed in the E. Riding.

1574. **Sagittaria sagittifolia.** *Linn.*, 58.
(Arrowhead).

Native, Eng., 1-7 Aug., II.

Common in dykes near Beverley (Dr. Hull), Spring dyke, Hull, where it still grows*; Beverley (B.); Dunswell, and in many Holderness drains and dykes, *e.g.*, near Brandesburton, Sutton, and Keyingham.

1575. **Damasonium stellatum.** *Pers.*, 13.
(Star-fruit).

Native, Eng., 2. June.

Very rare. Seen frequently in the 'seventies by the late Mr. E. A. Peak and Mr. T. Dennis, near Stoneferry, Hull. Not seen of late in this station, but the pond and dyke still exist, and probably also the plant.

1576. **Butomus umbellatus.** *Linn.*, 60.
(Flowering Rush).

Native, Eng., 1, 2, 5, 6, 7. July, II.

Still very common both in Holderness and Derwentland, making a handsome show when in flower. Derwent at Kirkham (B.); near Beverley and Cottingham (R.T.); Keyingham and other drains of Holderness. Growing wild within the borough of Hull, 1898. Many of the old localities of G. Norman and others, however, have the plant no longer.

NAIADACEÆ.

1577. **Triglochin palustre.** *Linn.*, 110.
(Arrow-grass).

Native, Brit., 1-7. July

Frequent in wet, grassy places and on edges of ponds. Hedon, 1898, and widely distributed elsewhere.

1578. **T. maritimum.** *Linn.*, 79.

Native, Brit., 1, 2, 4. Summer.

Very common on the Humber shores, with *Plantago maritima, Armeria maritima, Glaux, &c.*

1580. **Potamogeton natans.** *Linn.*, 100.
(Pond-weed).

Native, Brit., 1-7. June, IV.

Common in stagnant ponds and sluggish dykes in all the districts.

1581. **Potamogeton polygonifolius.** *Pour.*, 107.

Native, Brit., 1-7. June, IV.

Common in Holderness drains; Lambwath stream, 1895*; Skipwith Common, June, 1896 (C.W.).

1583. **P. coloratus.** *Hornem.*, 32.

Native, Eng., 6, 7. June, IV.

Rare. Pools near railway, Market Weighton (J.J.M.)*; Heslington Fields, near York (C. C. Babington, B. sup.); Pond on Barlby side of Skipwith Common (C.W., 1900).*

1584. **P. alpinus.** *Balb.*, 70.

Native, Brit., 1, 2. July, II.

Common in River Hull and large drains; sp. confirmed by Mr. Ar. Bennett.

1587. **P. heterophyllus.** *Schreb.*, 71.

Native, Brit., 1, 2. July, I.

Not common. Ditches near Beverley (B.). Is this the plant of Teesdale's list—"P. palustre foliis inferioribus submersis," &c., &c.? Lowthorpe, near Driffield, in ponds, Y.N.U. meeting, 1890.

1590. **P. lucens.** *Linn.*, 75.

(Shining Pond-weed).

Native, Eng., 1, 2, 6, 7. July, I.

Fairly common. Market Weighton Canal (J.J.M.); also in River Hull and Leven Canal, Holderness.*

1595. **P. perfoliatus.** *Linn.*, 93.

Native, Brit., 1, 2. July.

Rare. Near Beverley (Dr. Hull); Hornsea Mere.*

1596. **Potamogeton crispus.** *Linn.*, 94.
(Curled Pond-weed).

Native, Brit., 1, 2, 5, 6, 7. July, I.

Common in drains and dykes, var. approaching serratus, *Huds.*, not uncommon near Hull*; River Derwent (B.).

1597. **P. densus.** *Linn.*, 59.
(Opposite-leaved Pond-weed).

Native, Eng., 1, 2, 6, 7. July I.

Very common in Holderness*; in the River Derwent (B.); near Selby (W.N.C.).

1598. **P. zosteræfolius.** *Schum.*, 20.

Native, Eng., 1, 2.

Near Beverley (B.); very likely in our drains, but not identified of late.

1600. **P. obtusifolius.** *Mert. and Koch.*, 54.
(Grassy Pond-weed).

Native, Eng., 1, 2. June, III.

Not common. Drain within borough of Hull, near Newland Avenue*; as "compressus," near Beverley (Dr. Hull); open drain in Hull (C.W., 1901).

1601. **P. Friesii.** *Rupr.*, 47.

Native, Eng., 2. July, I.

In a dyke west of Hull, 1896* (*fide* Mr. Ar. Bennett); also an undetermined hybrid (?) in pond at Marfleet near Hull, 1900.*

1602. **P. pusillus.** *Linn.*, 101.
(Small Pondweed).

Native, Brit., 1, 2, 6, 7. June, IV.

Ponds near Beverley; Kelsey Hill (C.W.); a much attenuated form near Bromfleet*; Selby (W.N.C.).

1605. **Potamogeton pectinatus.** *Linn.*, 83.
(Fennel-leaved Pondweed).

Native, Brit., 1, 2, 6, 7. July, I.

Common, particularly in Holderness; at Marfleet; Stoneferry in small ponds and dykes. In Teesdale's list as *P. marinus.*

1606. **P. interruptus.** *Kit*, 48?

Native, Eng., 2, 6. July, I.

Frequent. Market Weighton Canal (C.W., *fide* Mr. Ar. Bennett); drain near Marfleet; Holderness (C.W.).

1609. **Ruppia rostellata.** *Koch*, 40.

Native, Brit., 2. Aug., III.

Uncommon. Tidal pools, Easington, 1900, and Patrington Haven, 1901; both first records of Mr. T. Petch.

1610. **Zannichellia palustris.** *Linn.*, 71.
(Horned Pondweed).

Native, Brit., 1-7. Summer.

Very common in stagnant and sluggish watery places.

1614. **Zostera marina.** *Linn.*, 55.
(Grass Wrack).

Native, Brit., 2. Aug., II.

Cast up within Spurn Head, 1888.*

CYPERACEÆ.

1622. **Eleocharis acicularis.** *R. Br.*, 73.
(Little Spike-rush).

Native, Eng., 2, 6, 7. June, II.

Not common. Near Pocklington and Dunnington Common, near York (B.); Hall Ings, Cottingham (C.W., June, 1898.

1623. **Eleocharis palustris.** *R. Br.* 111.
(Creeping Spike-rush).

Native, Brit., 1-7. June, III.
Common in all damp ground by the edges of pools.

1625. **E. multicaulis.** *Sm.*, 88.

Native, Brit., 6, 7. July.
Frequent. Houghton Moor (B.) and Skipwith.*

1626. **Scirpus pauciflorus.** *Lightf.*, 91.

Native, Brit., 2, 4, 6. June, III.
Houghton Moor, and marshes near Beverley (R.T.); Driffield (Y.N.U., July, 1900); Newbald Springs (24th June, 1899)*; Hull Ings near Cottingham, June, 1900 (C.W. and J.F.R.), *fide* Mr. Ar. Bennett.

1627. **S. cæspitosus.** *Linn.*, 104.

Native, Brit., 6, 7. July.
Common on dry moors. Skipwith Common, Allerthorpe, &c.

1629. **S. fluitans.** *Linn.*, 86.
(Floating Mud-rush).

Native, Brit., 2.
Frequent in marshy places. Ditches, Cottingham (R.T.), Hull (B.).

1631. **S. setaceus.** *Linn.*, 108.

Native, Brit., 6. July.
Houghton Moor (J.J.M.).*

1633. **S. lacustris.** *Linn.*, 101.
(Lake Club-Rush).

Native, Brit., 1-7. July, I.
Frequent. Kelsey gravel-pit ponds, Hornsea Mere, &c.

1634. **Scirpus Tabernæmontani.** *Gmel.*, 57.

Native, Eng., 1, 2, 6, 7. July, I.

Not very common. Drains near Brough (C.W.)*; also near Staddlethorpe, R. H. Moiser, 1878 (W.W.).

1638. **S. maritimus.** *Linn.*, 84.

(Salt marsh Club-Rush).

Native, Brit., 1, 2, 4, 5. July, I.

Abundant near Hull in dykes and on the Humber shore. One of the first plants to bind the naturally warped land, as at Bromfleet Island.*

1640. **S. Caricis.** *Retz.*, 53.

Native, Eng., 1, 2, 4, 7. July, I.

Fairly common. Shores of Hornsea Mere (J.F.R.); Driffield, between R. Hull and Canal (C.W., 1898); Newbald Springs, 1899.

1643. **Eriophorum vaginatum.** *Linn.*, 90.

(Cotton-grass).

Native, Brit., 1, 2, 6, 7. May, I.

Near Beverley (B.); Skipwith Common (W.N.C.); and other places in Derwentland (J.B.).

1644. **E. angustifolium.** *Roth.*, 109.

(Cotton-grass).

Native, Brit., 1-7. May, III.

Frequent. Near Beverley (R.T.); Saltend Common, near Hedon, and near Hull*; Skipwith Common (W.N.C.); near Howden (J.B.).

1645. **E. latifolium.** *Hoppe.*, 54.

Native, Brit., 2, 4. May, III.

Bogs and wet places near Beverley (R.T.); Weedley Springs near South Cave (C.W.).*

1650. **Schœnus nigricans.** *Linn.*, 76.

Native, Brit., 2, 4. May, III.

Rare. Wold-dale (Woodale) (H.F.P.); by the railway, in the remains of the old marsh, at Hall Ings, Cottingham, 11th May, 1901.* A sp. of this plant is in one of the late Mr. J. F. Young's dried collections, but without a locality.

1653. **Carex dioica.** *Linn.*, 79.

Native, Scot., 1, 6. June, I.

Rare. Only as yet in one or two places; marshy ground between Driffield Canal and R. Hull, where it was found by Mr. John Farrah, F.L.S., and the author in July, 1899. Also in marshy ground at the "Cockle Pit" Springs near Brough, 27th May, 1901* (Y.N.U.).

1654. **C. Davalliana.** *Sm.*, 1.

Incognit.

Marshy ground near Beverley (R.T.); no confirmation of this record.

1655. **C. pulicaris.** *Linn.*, 107.
(Flea Sedge).

Native, Brit., 1, 2, 4, 6, 7. June, I.

Not common. Near Beverley (Dr. Hull); Houghton Moor; Cottingham Common (G.N.); Newbald Springs*; near Driffield and Wansford.*

1659. **C. divisa.** *Huds.*, 27.

Native, Eng., 2. June, I.

Not of common occurrence, but plentiful where it grows. "Meadow called Derricoates, Hull" (R.T.). The station at Dairycoates is now built upon. This species, however, was found by the author at Marfleet, three miles east of Hull, where it is fairly plentiful (1894), and each year since. Also near Hedon Haven, May, 1898.* It is abundant on Saltend Common, near Hedon, 1901.*

1660. **Carex disticha.** *Huds.*, 81.
(Soft Brown Sedge).

Native, Eng., 1-7. June, III.

Common in all the districts. Near Newsholme (J.B.); Weedley Dale, Leven Canal, Newbald Springs,* &c.

1661. **C arenaria.** *Linn.*, 68.
(Sea Sedge).

Native, Brit., 1, 2, 5. June, III.

Grovehill, and low places near Hull Bridge (B.), rather unlikely places; Sand-le-mere on the Holderness coast (C.W.); Spurn.*

1662. **C teretiuscula.** *Good*, 56.
(Lesser-panicled Sedge).

Native, Brit., 2.

Rare. Arram Carr near Beverley (R.T.). Not seen of late on this station, perhaps on account of the drainage and cultivation having cleared the marshes away, and with them many old rarities. But is *C. paradoxa* below mentioned not the Carex meant?

1663. **C. paradoxa.** *Willd.*, 7.

Native, Local, 1, 2, 7. June, III.

Heslington fields (Rev. A. O. Moore, 1856); now extinct on this station owing to drainage (H.J.W.). Plentiful at Commonbank Nook (Pulfin Bog) near R. Hull, where I first found it in May 1896. Boggy ground by R. Hull near Driffield, July, 1898 (C.W.). Mr. Ar. Bennett confirms our determination of specimens from the last two localities. Langwith Common (Silvanus Thompson, senr., W.W.). These discoveries give this species less of a "local" character than has hitherto been attached to it.

1664. **C. paniculata.** *Linn.*, 92.
(Hummock Sedge).

Native, Brit., 1-7. June, IV.

Frequent. Wet pastures near Beverley (Dr. Hull and B.); still in this locality (J.J.M.). Lowthorpe Woods (Y.N.U., 1890); King's Mill, Driffield (C.W., 1898).* Var. simplicior, *Andrz.*, near Wansford, July, 1900 (C.W.).

1665. **Carex vulpina.** *Linn.*, 86.

(Great Sedge).

Native, Brit., 1, 2, 4, 6, 7. June, III.

Common by the sides of dykes in Holderness, particularly near the Humber.

1667. **C. muricata.** *Linn.*, 78.

(Great Prickly Sedge).

Native, Brit., 6, 7. June, I.

Not common. Near Welton, and North and South Cave * (C.W.); Skipwith Common, 1900.*

1668. **C. divulsa.** *Good.*, 50.

Native, Eng., 6. June, I.

Rare. Grassy roadside near North Cave once only * (sp. in Herbarium, J.F.R.).

1669. **C. echinata.** *Murr.*, 110.

(*vel.* C. stellulata, *Good.*).

Native, Brit., 6, 7. June, I.

Not common except in one or two places. Allerthorpe (Y.N.U., 1896) and Skipwith Commons, 1900.*

1670. **C. remota.** *Linn.*, 87.

Native, Brit., 1-7. June, IV.

Not frequent, but in all divisions. Near Beverley (Dr. Hull); Birkhill Wood near Cottingham.*

1671. **C. axillaris.** *Good.*, 57.

Native, Eng., 2.

Ditches near Beverley; shown to Teesdale by Colonel Machell (R.T.). No confirmation of late, but so rich is Holderness in Carices, it may still be present.

1674. **Carex elongata.** *Linn.*, 17.

Native, Ger., 7.

Rare. Boggy woods, Langwith near York (B. sup.), the only station.

1677. **C. ovalis.** *Good.*, 112.

(*vel.* C. leporina, *Linn.*, Oval-spiked Sedge).

Native, Brit., 4, 7. July, II.

Uncommon. In the two eastern divisions, only at Risby Park.*

1682. **C. acuta.** *Linn.*, 72.

(Slender-spiked Sedge).

Native, Brit., 1, 2, 6, 7. June, III.

Frequent. Banks of rivers, Beverley (R.T.); banks of ditches near Beverley (B.); also in similar places near Hull (sp., *fide* Mr. Ar. Bennett); Wressle (J.B.).

1687. **C. Goodenowii.** *J. Gay*, 110.

(*vel.* C. vulgaris, *Brit. Fl.*, Common Sedge).

Native, Brit., 1-7. June, III.

Common by drain and dyke sides, especially in Holderness.* Hornsea Mere side, and Swine Moor near Beverley. C. stricta, *Good.*, Heslington fields (B. sup.), and I believe some of my Hornsea gatherings are of this sub-species.*

1688. **C. flacca.** *Schreb.*, 109.

(*vel.* C. glauca, *Scop.*, Glaucous Heath Sedge).

Native, Brit., 1-7. June, III.

Common in all the divisions.

1696. **C. pilulifera.** *Linn.*, 104.

(Round-headed Sedge).

Native, Brit., 1, 2, 6, 7. July, I.

Rather uncommon. On gravelly places; Brandesburton* morainic mounds, and near Newbald.*

1698. **Carex verna.** *Chaix.*, 96.
(*vel.* C. præcox, *Jacq.*, Spring Sedge).

Native, Brit., 1, 2, 3, 4. May, II.

Frequent on the Wolds. Wold-dale near South Cave,* flowering when and where Moonwort sporophylls are unfolding in gravelly fields near Cottingham, May 1901.

1701. **C. panicea.** *Linn.*, 111.
(Pink-leaved Sedge).

Native, Brit., 1-7. July, I.

Common. Near Hull (B.); Drewton Dale and Pulfin Bog, and in all the divisions.

1706. **C. pendula.** *Huds.*, 75.
(Great Pendulous Sedge).

Native, Brit., 2. May, IV.

Known only in one place, namely, Birkhill Wood near Cottingham; first seen there, July, 1901.*

1709. **C. sylvatica.** *Huds.*, 87.
(Pendulous Wood Sedge).

Native, Brit., 1-7. May, IV.

Common in woods and copses. Swine.

1712. **C. distans.** *Linn.*, 58.
(Loose Sedge).

Native, Brit., 1, 2, 3. May, IV.

Frequent; near the sea. Flambro' Head, near Bempton (J.E.R.); Sand-le-Mere (C.W., 1895); Saltend Common.

1714. **C. fulva.** *Good.*, 84.
(Tawny Sedge).

Native, Brit., 1, 2. June, IV.

Wet pastures near Beverley (R.T.); marshy ground between R. Hull and Driffield Canal, 1900.*

1715. **Carex extensa.** *Good.*, 54.
(Long Bracteate Sedge).

Native, Brit., 1, 2, 6. July, I.

Same as the last (R.T.). Near Brough and Cottingham (C.W. and J.F.R.).

1716. **C. flava.** *Linn.*, 65.
(Yellow Sedge).

Native, Brit., 1, 2, 6, 7. July, I.

Common in the more western districts. Over Cleugh, King's Mill, Driffield, Brough and near Cottingham; var. Œderis, *Retz.*, on Skipwith Common (H.F.P. Rec. Club).

1717. **C. filiformio.** *Linn.*, 41.
(Slender-leaved Sedge).

Native, Scot., 1, 2.

"Very common in all marshes about Beverley (R.T.)." No one has confirmed the record of late. The marshes have so nearly all vanished that with them this species may have also gone. Still it may have been overlooked.

1718. **C. hirta.** *Linn.*, 98.
(Hairy Sedge).

Native, Brit., 1-7. June, I.

Frequent in damp places in all the divisions.

1719. **C. Pseudo-cyperus.** *Linn.*, 48.

Native, Eng., 2.

Rare. Dumble Pit near Beverley (R.T.). Cannot be confirmed for the present.

1720. **C. acutiformis.** *Ehrh.*, 77.
(Lesser Common Sedge).

Native, Brit., 1-7. June, I.

Uncommon. Banks of Derwent (B.); Hall Ings; Beverley Beck.*

1721. **Carex riparia.** *Curtis*, 76.
(Great Common Sedge).

Native, Brit., 1-7. June, I.

Very common in all the more stagnant dykes.

1722. **C. rostrata.** *Stokes*, 103.
(Slender-beaked Bladder Sedge).

Native, Brit., 1-7. June, II.

Frequent. Pulfin Bog, near R. Hull; Hornsea Mere (C.W.).

1724. **C. vesicaria.** *Linn.*, 79.
(Short-beaked Bladder Sedge).

Native, Brit., 1-7. June, II.

Ditches at Beverley (R.T.); Hull; Cottingham (B.); Weedley Springs, South Cave; banks of drain near Sandle-Mere (C.W.).

GRAMINEÆ.

1728. ***Panicum Crus-galli.*** *Linn.*

P. miliaceum. *Linn.*

P. capillare. *Linn.*

1729. ***Setaria viridis.*** *Beauv.*, 34.

1230. ***S. glauca.*** *Beauv.*

1731. ***S. verticillata.*** *Beauv.*

Aliens. Waste ground near St. Andrew's Dock, Hull, where sweepings of dock sheds and railway trucks and much other refuse are thrown down.

1726. ***Phalaris canariensis.*** *Linn.*

(Canary Grass).

Alien.

Not uncommon on refuse heaps.

1738. **Phalaris arundinacea.** *Linn.*, 110.
(Reed or Ribbon Grass).

Native, Brit., 1-7. July, II.

Frequent in wet places: generally distributed.

1739, **Anthoxanthum odoratum.** *Linn.*, 111.
(Sweet Vernal Grass).

Native, Brit., 1-7. July, I.

In every meadow.

1743. **Alopecurus fulvus.** *Sm.*, 27.

Native, Eng., 2. July.

Found only once near Skidby Drain between Hull and Beverley.*

1744. **A. geniculatus.** *Linn.*, 112.

Native, Brit,, 1-7. Summer.

Common in wet places in all the districts.*

1745. **A. bulbosus.** *Gouan.*, 22.

Native, Eng.

Unknown now. Places where water stands; Beverley and Hull (R.T.)—or is this *A. fulvus*, for which some make *bulbosus* a synonym? The description of the habitat agrees with that for which *A. fulvus* was found by the author.

1746. **A. pratensis.** *Linn.*, 105.
(Meadow Foxtail).

Native, Brit., 1-7. May,

Very common in cultivated fields, and on the edges thereof. Swine and Cottingham.*

1748. **Milium effusum.** *Linn.*, 88.
(Millet Grass).

Native, Brit., 1, 2, 3, 4, 7. July, I.

Not uncommon in woods and copses on the Wolds. At S. Cave,* Little Weighton,* and near Beverley.*

1750. **Phleum pratense.** *Linn.*, 108.
(Timothy, or Cat's-tail Grass).

Native, Brit., 1-7. July, I.

Very common in meadows.* Var. nodosum, *Linn.*, in dry fields near Driffield.*

1752. **P. arenarium.** *Linn.*, 47.
(Sea Cat's-tail Grass).

Native, Eng., 1, 2. July, III.

Frequent on the sandy parts of sea coast. Atwick near Hornsea, &c. (B.); Spurn, Y.N.U., 1898 (J.J.M.).*

1755. **Agrostis canina.** *Linn.*, 101.
(Brown Bent Grass).

Native, Brit., 1-7. July, I.

Frequent in the western districts, especially in damp places on the sandy commons and moors. Market Weighton.*

1756. **A. palustris.** *Huds.*, 104.

Native, Brit., 1-7. Aug., II.

Frequent. Var. maritima, *Mey.*, at Bridlington (R.T.); Sand-le-mere (C.W.), 1897.*

1757. **A. vulgaris.** *With.*, 112.
(Fine Bent Grass).

Native, Brit., 1-7. July, IV.

Very common on gravelly places in Holderness, but especially on the sandy commons of the western divisions of the Riding.

1758. ***Polypogon monspeliensis.*** *Desf.*, 7.
(Beard Grass).

Alien.

Old brick-pond near Hull, 1896, now built upon*; near the docks (E.A.P.); casual at Barlby (W.N.C.).

1760. **Calamagrostis epigeios.** *Roth.*, 60.
(Wood Small-reed).

Native, Eng., 1, 2. July, III.

Not common. Rise Park, 1890*; in a small dyke on the road from Beverley to Meaux, July, 1901 (C.W.).*

1761. **C. lanceolata.** *Roth.*, 39.
(Small-reed).

Native, Eng., 1, 2, 3, 4, 6, 7. July, I.

Hornsea and Bridlington (R.T.); Wold-dale bottom near South Cave, May, 1898*; Heslington fields, Silv. Thompson, 1844, and Rev. A. O. Moore, 1846 (W.W.); at Hornsea Mere (C.W.) 1897.* A common and beautiful grass in damp places near the R. Hull, as at Pulfin Bend.

1763. **Apera Spica-venti.** *Beauv.*, 17.
(Silky Bent Grass).

Colonist, Ger., 6, 7. Aug., I.

Frequent in cornfields. Near Market Weighton, Y.N.U., 1888*; Brough (C.W.).

1767. **Ammophila arundinacea.** *Host*, 64.
(Marram or Sea-reed).

Native, Brit., 1, 2. July, I.

Common on the coast sand-hills at Hornsea, Sand-le-mere, and Spurn,* where the sister species, A. baltica, *Link.*, should also grow.

1770. **Aira caryophyllea.** *Linn.*, 110,
(Silver Hair-grass).

Native, Brit., 1-7. July, II.

Market Weighton sand field (J.J.M.).*

1771. **A. præcox.** *Linn.*, 111.

Native, Brit., 1-7. May, III.

Market Weighton sand field (J.J.M.)*; Brough "Cockle" pits on old gravel heaps.*

1773. **Deschampsia cæspitosa.** *Beauv.*, 111.
(Tufted Hair-grass).

Native, Brit., 1-7. July, III.

Not particularly common in the E. Riding. South Cave,* Market Weighton.*

1776. **D. flexuosa.** *Trin.*, 107.
(Heath Grass).

Native, Brit., 6, 7. July, I.

Houghton Moor (R.T. and J.J.M.), and on the other commons in the Derwent districts.*

1777. **Holcus mollis.** *Linn.*, 107.
(Creeping Soft-grass).

Native, Brit., 1-7. July, IV.

Woods and shady places, frequent; Birkhill Wood, near Cottingham*; Wassand Woods, near Hornsea Mere*; near Selby (W.N.C.).

1778. **H. lanatus.** *Linn.*, 111.
("Yorkshire Fog," E.R.D.).

Native, Brit., 1-7. July, IV.

In all meadows.

1779. **Trisetum pratense.** *Pers.*, 93.
(Avena flavescens. Yellow Oat-grass).

Native, Brit., 1-7. July, II.

Very common in all districts, especially in dry situations. Market Weighton,* Hessle,* Driffield,* &c.

1780. **Avena pubescens.** *Huds.*, 91.
(Downy Oat-grass).

Native, Brit., 3. July, II.

Not common. North Grimston, 1897 (M.B.S.).

1781. **Avena pratensis.** *Linn.*, 76.

Native, Brit., 3, 4, 6. July, IV.

Not uncommon on the Wolds. Skidby old chalk pits, July, 1898*; Welton, 1896 (C.W.).

1783. **A. fatua.** *Linn.*, 77.

(Wild Oat).

Colonist, Brit., 2.

Frequent. Beverley (B.). We cannot confirm.

1784. **Arrhenatherum avenaceum.** *Beauv.*, 112.

(False Oat-grass).

Native, Brit., 1-7. July.

Very common in all the districts.*

1787. **Phragmites communis.** *Trin.*, 104.

(Common Reed).

Native, Brit., 1-7. July, IV.

Abundant in Holderness, as at Hornsea Mere, where it forms a perfect jungle 9 to 10 feet high; Dunswell dykes*; also near Selby and Market Weighton.

1789. **Cynosurus cristatus.** *Linn.*, 112.

(Dog's-tail Grass).

Native, Brit., 1-7. July, IV.

Common in meadows everywhere.*

1791. **Koeleria cristata.** *Pers.*, 89.

Native, Brit., 1, 2. June, III.

Should be on all gravelly pastures, but is probably often overlooked. First noted at Coneygarth, near Brandesburton, June, 1899.* On gravelly banks of the River Hull near Driffield (C.W.), together with the var. gracilis (*Boreau*).

1792. **Molinia varia.** *Schrank.*, 108.

(*vel.* M. cœrulea, Blue Moor-grass).

Native, Brit., 2, 6. August, I.

Rather rare. Houghton Moor, 1888,* and abundantly in damp places on Skipwith Common. Hall Ings, Cottingham, 1897,* where also grow *Schœnus, Scirpus pauciflorus*, &c.

1793. **Catabrosa aquatica.** *Beauv.*, 94.

(Whorl-grass).

Native, Brit., 1-7. June, II.

Common in shallow dykes and particularly in those that dry up during the summer. Hall Ings, Cottingham, and other places near Hull.*

1794. **Melica nutans.** *Linn.*, 49.

Incognit.

In the list in Oliver's "Beverley," but a most unlikely species for the district; undoubtedly a blunder.

1795. **M. uniflora.** *Retz.*, 96.

(Wood Melic).

Native, Brit., 1-7. June, I.

A very pretty and common grass with us; copses and lanes full of it, as at Hall Ings, Haltemprice Lane, Swine nursery plantation,* &c.

1796. **Dactylis glomerata.** *Linn.*, 112.

(Cock's-foot Grass).

Native, Brit., 1-7. July.

Common in all grass fields.*

1798. **Briza media.** *Linn.*, 108.

(Trembling Grass).

Native, Brit., 1-7. July, II.

Frequent in all districts.*

1800. **Poa annua.** *Linn.*, 111.

Native, Brit., 1-7. May to October.

Everywhere—the grass in the street.

1807. **P. nemoralis.** *Linn.*, 90.
(Wood Meadow-grass).

Native, Brit., 1-7. July.

Generally distributed in meadows and field hedge-rows. Several varieties noted but not yet determined.

1808. **P. compressa.** *Linn.*, 69.

Native, Brit., 2. July.

Waste places, bank of R. Hull, near Stoneferry, June, 1898*; near Wawne (C.W.).

1810. **P. pratensis.** *Linn.*, 110.

Native, Brit., 1-7. July.

Very common in meadows, as at Little Weighton and Brandesburton.*

1812. **P. trivialis.** *Linn.*, 110.

Native, Brit., 1-7. July.

Also very common, in similar places to the species immediately above.

1813. **Glyceria fluitans.** *R.Br.*, 110.
(Flote-grass).

Native, Brit., 1-7. July.

Very common in shallow stagnant water. Ponds near Hull; Stoneferry, and the Humber embankments.

1814. **G. plicata.** *Fr.*, 72.
(Floating Meadow-grass).

Native, Brit., 1-7. July.

Frequently in similar places to the above (C.W.).*

1815. **Glyceria aquatica.** *Sm.*, 79.
(Water Sweet-grass).

Native, Eng., 1-7. June and July.

Common east of the Wolds in dykes and drains; between Hull and Beverley, 1895*; great beds by River Hull, near Driffield.*

1816. **G. maritima.** *Mert.* and *Koch.*, 67.
(Sea Meadow-grass).

Native, Brit., 1, 2, 4, 7, 7. July, III.

Very common. Banks of the Humber (C.W.)*; near Hull (R.T.).

1817. **G. distans.** *Wahlenb.*, 56.

Native, Brit., 2, 4, 6, 7. July, I.

Commoner than *Glyceria maritima* on the Humber shores farthest from the sea, *e.g.*, Bromfleet Island and Brough Haven, where it is an important silt-binder.†

1820. **Festuca rigida.** *Kunth*, 91.

Native, Eng., 1-7. July.

Frequent in dry places. Kirkham Abbey (B.); Kelsey Hill gravels, Holderness*; chalk pits, Willerby.*

1822. **F. uniglumis.** *Soland*, 19.

Native, Eng., 1, 2. July.

Very rare. On the sea coast at Atwick (S. Gibson, Addm. B.); not found recently, though looked for. On walls, Beverley (R.T.), where again it is now looked for in vain.

1825. **F. sciuroides.** *Roth*, 104.
(Wall Fescue Grass).

Native, Eng., 3, 4. July.

As *F. bromoides* on the Wolds (R.T.); no late confirmation.

† See Introductory Chapter—"Natural Warping."

1826. **Festuca ovina.** *Linn.*, 111.

(Sheep's-bent).

Native, Brlt., 1-7. June, IV.

Very frequent on commons in the Derwent districts, and on the morainic mounds of Holderness*; Brandesburton* (J.J.M.).

1827. **F. rubra.** *Linn.*, 100.

(Creeping Frescue Grass).

Native, Brit., 1-7. July, I.

Pastures, Flambro' (R.T.). Var. arenaria (*Osbeck*), on the Humber bank east of Hull.* Between Filey and Speeton (B.). "Danes" Dyke, Bridlington (C.W.).

1830. **F. sylvatica.** *Vill.*, 30.

(Reed Fescue Grass).

Native, Scot., 4.

Very rare; probably now extinct if, indeed, it ever existed in Walkington. Walkington Wood near Beverley (R.T.).

1831. **F. elatior.** *Linn.*, 95.

(Tall Fescue Grass).

Native, Brit., 1-7. Aug., I.

Between Howden and Market Weighton (B.). Frequent in meadows and by roadsides between North and South Newbald and Beverley. Var. pseudo-loliacea, *Hackel,* near Beverley (R.T.). Var. pratensis, *Huds.*, Hessle (C.W., *fide* Mr. Ar. Bennett). An enormous form, apparently of this species, at "Danes" Dyke.

1832. **F. arundinacea.** *Schreb.*, 84.

Native, Brit., 2. Aug., I.

Not uncommon with the other seaside grasses at Spurn. Sand-le-mere, 1898.*

1833. **Bromus giganteus.** *Linn.*, 98.

(Great Brome-grass).

Native, Brit., 1-7. Aug., I.

Common in woods and copses. Willerby, 1897*; Welton (C.W.).

1834. **Bromus ramosus.** *Huds.*, 96.
(Rough Brome-grass).

Native, Brit., 1-7. Aug., I.
Very common in all copses and shady places. Skidby.*

1835. **B. erectus.** *Huds.*, 49.

Native, Eng., 3, 4. August.
Common on the Wolds (R.T.); North Grimston (M.B.S.).

1836. ***B. madritensis.*** *Linn.*, 11.
Alien.
At the Hull docks; var. b. rigidus (*Roth*), also frequent.

1837. ***B. tectorum.***
Alien.
In the same place as the preceding.

1839. **B. sterilis.** *Linn.*, 108.

Native, Brit., 1-7. Aug., II.
Common, particularly on roadsides and mud-topped walls as at Newbald and other villages.

1840. **B. secalinus.** *Linn.*, 80.

Colonist, Brit., 6. August.
Market Weighton (R.T.); Humber Banks, Hessle (G. Webster, 1879, W.W.).

1841. **B. racemosus.** *Linn.*, 14.

Native, Eng., Incognit.
Marshes near Beverley (R.T.). Probably an error for *B. commutatus.*

1842. **B. commutatus.** *Schrad.*,, 92.

Native, Brit.
Waste ground near Hull docks.*

1843. **Bromus mollis**. *Linn.*, 112.
(Soft Brome-Grass).

Native, Brit., 1-7. June, I.

Common in fields and by roadsides*; var. d. interruptus, *Hackel.*, amongst the dock aliens.

1844. ***B. arvensis***. *Linn.*

Alien.

Cornfields near Little Weighton (R.T.).*

B. scoparius.

B. macrostachys. *God.*

B. squarrosus. *Bab.*

Aliens. Hull docks. All three identified by Mr. S. T. Dunn.

1845. **Brachypodium gracile**. *Beauv.*, 111.
(Slender False Brome-grass).

Native, Brit., 1-7. July, I.

Not common in E. Riding. In old chalk pit near Willerby, 1897.*

1846. **B. pinnatum**. *Beauv.*, 37.
(Heath False Brome-grass).

Native, Eng., 3, 4, 6. July II.

Market Weighton (B.); Frequent on the Wolds; Sledmere (Y.N.U., 1891), and (M.B.S.).*

1847. **Lolium perenne**. *Linn.*, 112.
(Darnel or Rye-grass).

Native, Brit., 1-7. July, I.

Very common in "seed" fields and by roadsides: all the vars. of the L.C.,—remotum, *Schrank*, multiflorum, *Lam.*, aristatum, *Schum*, italicum *Braun*—are found in every "seed" field.

1849. **Lolium temulentum.** *Linn.*, 64.

(Bearded Darnel. "Drooak," E.R.D.).

Colonist, Brit., 1, 6, 7. July, I.

Rare now. Cornfields Langwith (B.); near Selby (W.N.C.). Var. arvense, *With.*, Walkington fields and near Beverley (R.T.); and near North Cave village, 1899.*

1850. **Agropyron caninum.** *Beauv.*, 90.

(Dog-wheat).

Native, Brit., 1, 2. July, I.

Sides of fields: frequent. Leckonfield and Wawne (C.W.).*

1851. **A. repens.** *Beauv.*, 111.

(Common Couch-grass. "Wicks," E.R.D.).

Native, Brit., 1-7. July, I.

Everywhere the too common pest of arable land.

1852. **A. pungens.** *Roem. and Schult.*, 17.

(Biting Couch-grass).

Native, Eng. July, II.

Rare. Var. pycnanthum, *Gr. and Godr.*, near the Humber at Hessle (C.W., *fide* Rev. E. F. Linton).

1854. **A. junceum.** *Beauv.*, 48.

(Rushy Wheat-grass).

Native, Brit., 1, 2. July, IV.

Common on the coast sand-hills at Hornsea, Withernsea, and Spurn.*

1855. **Lepturus filiformis.** *Trin.*, 50.

(Sea Hard-grass).

Native, Eng., 2, 4, 6. Aug., I.

On the Humber Bank, Hessle (C.W.), 1896; Marfleet near Hull, 1897;* and generally on the Humber shore.

1856. **Nardus stricta.** *Linn.*, 107.
(Common Wheat-grass).

Native, Brit., 6-7. July, II.

Only in Derwent-land. Market Weighton sandfield (J.J.M.); * Skipwith Common.*

1858. **Hordeum secalinum.** *Schreb.*, 62.
(*vel.* H. pratense, *Huds.*, Meadow Barley-grass).

Native, Eng., 1, 2. Aug.

Near Dunswell, Hull; * Hilderthorpe (Dr. Hull).

1859. **H. murinum.** *Linn.*, 78.
(Wall Barley-grass).

Native, Eng., 1, 2. Aug., I.

Very common near the Hull and the Humber.

1860. **H. marinum.** *Huds.*, 27.
(Seaside Barley).

Native, Eng., 2. Aug., I.

Fairly frequent in the same localities as H. murinum, but very sparingly in numbers (C.W.*); near Hedon, 1901 (T.P.).

1861. **Elymus arenarius.** *Linn.*, 36.
(Sea Lyme-grass).

Native, Scot., 1, 2. Aug., I.

Frequent on the coast sand-hills*; Hornsea, Bridlington,* Sand-le-mere, and Spurn.*

FILICES.

1866. **Pteris aquilina.** *Linn.*, 112.
(Common Bracken).

Native, Brit., 1-7. August.

Common in occurrence, but except in some of the Derwent-land woods not very plentiful in quantity; cultivation seems more inimical to ferns than to many other plants.

1868. **Lomaria Spicant.** *Desv.*, 111.
(Hard Fern).

Native, Brit., 2, 6, 7. August.

Chiefly in the Derwent districts. Houghton Woods, 1858 and 1899*; near Selby (W.N.C.) and Birkhill Wood, 1900.*

1871. **Asplenium Adiantum-nigrum.** *Linn.*, 107.
(Black Maiden-hair).

Native, Brit., 2. Summer.

Very rare. Only recorded in one station, viz., walls of Easington Church, by the late Canon Maddock, whose specimens are in the herbarium (J.F.R.), 1899. Probably the var. obtusum, *Kit.* and *Milde.*

1874. **A. Trichomanes.** *Linn.*, 108.

Native, Brit., 2, 3. Summer.

Frequent on old walls. The Arches, Londesbro' (G.N.). Easington and Cottingham Churches.

1875. **A. Ruta-muraria.** *Linn.*, 109.
(Wall-rue).

Native, Brit., 2, 4, 7. Summer.

Frequent, but sparing in quantity, on rocks and old walls, especially of churches, as at Skeffling (H.J.W.), Welwick (Mr. T. Bunker, Goole, 1898), Patrington (Canon Maddock, 1895), and Wawne Churchyard, March 1902.* This plant appears to be quite an "ecclesio-phile" judging by its frequency on the old churches of Holderness. It has also been gathered on St. Austin's Stone, also, by the way, of ecclesiastical tradition, in Drewton Dale (G.N., 1850) by Mr. H. Knight, 1897, and by the author, 1900.

1878. **Athyrium Filix-fœmina.** *Roth.*, 110.
(The Lady Fern).

Native, Brit., 1-7. July, IV.

Woods, chiefly in the western divisions; Houghton Moor; Cliff Common; wood near Speeton Beck (C.W.); Birkhill Wood near Cottingham.

1881. **Ceterach officinarum.** *Willd.*, 68.
(Scale Fern).

Native, Eng., 2, 3. Summer.

Very rare, being only recorded in one or two stations: an old wall in the village of Langton (M.B.S.). Mr. T. Audas of Hull once got a tuft on Beverley Bridge.

1882. **Scolopendrium vulgare.** *Symons*, 101.
(Hart's-tonge).

Native, Brit., 1, 2, 7. July, IV.

Not common, and apparently vanishing. Nursery plantation near Swine (G.N., 1850), 1890.* Skeffling Church (H.J.W.); Near Withernsea (Mr. W. C. England); Lane near Cottingham (G.N.) and (E.A.P.).

1889. **Polystichum lobatum.** *Presl.*, 104.
(Prickly Shield-fern).

Native, Brit., 1, 2. Aug., II.

Rare in the East Riding. Var. genuinum, *Syme*, between Spring Head and Cottingham, and var. aculeatum, *Syme*, in the same lane (G.N., 1880), where the author found one specimen in 1899.* Only one other station is known for it, namely, on the side of a little beck near Leckonfield, where it was first shown to me in Sept., 1897, by Mr. H. M. Foster; the specimen was var. aculeatum.

1891. **Lastræa Thelypteris.** *Presl.*, 43.
(Marsh Buckler-fern).

Native, Eng., 1-7.

In bogs; very rare. Heslington fields by Silvanus Thompson Senr. (W.W.); Pulfin Bog, 1897*, not yet found with *sori* in this station.

1892. **L. Oreopteris.** *Presl.*, 102.

Native, Brit., 6, 7. July, IV.

Woods at Eskrick (B.); infrequent on Skipwith Common (W.N.C.); Houghton Moor.*

1893. **Lastræa Filix-mas.** *Presl.*, 112.

(Male-fern).

Native, Brit., 1-7 July, IV.

In all the districts, but, like most of the other ferns, not at all abundant in the East Riding, except in some of the woods, and chiefly west of the Wolds.

1896. **L. cristata.** *Presl.*, 10.

Native, Eng., 5, 6, 7. August, IV.

Very rare. Only in one place, in Derwent-land—Kennythorpe Moor (M.B.S.). Probably also in Cliff Wood (J.J.M.), but I have not seen a specimen from the last place. A form, or species gathered by C.W. and the author in September, 1900, on Skipwith Common, comes very near this species, or *L. uliginosa*.

1898. **L. spinulosa.** *Presl.*, 83.

Native, Eng., 1, 2, 6, 7. August, I.

Frequent. Scots Bog Wood, Cottingham (G.N.), and in Houghton Woods with the next species, 1888 (Y.N.U.),* Birkhill Wood, 1901.*

1899. **L. dilatata.** *Presl.*, 77.

Native, Brit., 1-7.

More frequent than the species immediately above, in Houghton Woods*; Houghton and Cottingham Commons (G.N.); near Leckonfield, 1897,* and Swine, 1899.*

1901. **Polypodium vulgare.** *Linn.*, 112.

(Common Polypody).

Native, Brit., 2, 6, 7. August, II.

Not common, but occasionally on old hawthorn hedgerows. Haltemprice Lane and Swine (G.N.); Routh, 1888*; near Market Weighton, 1899.*

1902. **Phegopteris Dryopteris.** *Fée*, 73.
(Oak-fern).

Native, Brit., 6, 7. July, IV.

Very rare. Only recorded from one locality, and that on the chalk near Sledmere (Mr. T. Audas), 1897.

1906. **Osmunda regalis.** *Linn.*, 89.
(Royal "Flowering" Fern).

Native, Brit., 6, 7. June, IV.

Rare, in damp woods. In Langwith and Weldrake lanes, Langwith Woods. Baines says "very frequent"; 1866, (W.W.), Skipwith Common (W.N.C.), South Cliff (G.N.), and (J.J.M., 1899).

1907. **Ophioglossum vulgatum.** *Linn.*, 87.
(Adder's-tongue).

Native, Brit., 1-7. July.

Common in pastures in all the districts, and very abundant, though small in size, in clayey soils.

1909. **Botrychium Lunaria.** *Sw.*, 103.
(Moonwort).

Native, Brit., 1, 2, 3, 4, 6, 7. May, II.

Not infrequent on chalky or gravelly knolls in pastures. Hornsea, where occurs Var. incisum, *Milde* (R.T.) (see "Journal of Botany," Aug. 1898); Beverley (Y.N.U.); Risby Park (E.A.P.), 1887; near Brough (Mr. T. H. Woodhead, May, 1901; Y.N.U.), and in the same month near Burn Park, Cottingham; and abundant on tumuli, Hall Ings, June 21st, 1902.*

EQUISETACEÆ.

1910. **Equisetum maximum.** *Lam.*, 83.
(Greater Horsetail. "Dutch Rushes").

Native, Brit., 1, 2. May, II.

Frequent in wet places, on clay cliff slopes near Bridlington*; Kelsey Hill, Holderness (Mr. R. H. Philip); and Leys Wood, North Grimston (Y.N.U., 1902).*

1911. **Equisetum arvense.** *Linn.*, 111.

(Common Horsetail).

Native, Brit., 1-7. May, II.

Common, particularly on sandy and cindery places near railways.

1614. **E. palustre.** *Linn.*, 106.

Native, Brit., 1-7. July, I.

Very common in wet places.

1916. **E. limosum.** *Sm.*, 107.

Native, Brit., 1-7. July, I.

Almost as frequent as the last, at least in Holderness dykes.

LYCOPODIACEÆ.

1922. **Lycopodium inundatum.** *Linn.*, 57.

Native, Brit., 6 or 7 (?). Wats. Top. Bot.

1924. **L. clavatum.** *Linn.*, 94.

Native, Brit., 2.

Cottingham Common. MS. notes (G.N., 1850). Now extinct, I fear.

SELAGINELLACEÆ.

1926. **Selaginella Selaginoides.** *Gray*, 58.

Native, Brit., 6. August.

Rare. Near Beverley (O.B.G.); near Newbald Springs, Sept., 1900.*

1927. **Isoetes lacustris.** *Linn.*, 25.

Incognit.

Riccal Common (W.N.C.); now probably extinct, but as the next species has been re-discovered recently in abundance, so also *Isoetes* may be still present.

MARSILEACEÆ.

1930. **Pilularia globulifera.** *Linn.*, 59.

Native, Brit., 7. Late Summer.

Skipwith Common (W.N.C.); formerly in ponds now cleared away. Discovered again in great abundance in other ponds by Mr. H. J. Wilkinson, Oct., 1901. Specimens *in herb.*, J.F.R.

CHARACEÆ.

1931. **Chara fragilis.** *Desv.*, 84.

Native, Brit., 1-7. Spring and Summer.

Common in stagnant ponds and dykes.

1935. **L. polyacantha.** *Braun.*, 13.

Native, Eng., 6. Spring and Summer.

Rare. Staddlethorpe, 1878 (H. R. Moiser).

1941. **C. hispida.** *Linn.*, 46.

Native, Eng., 6. Spring and Summer.

Rare. Pond in old marl pit, Market Weighton, April, 1899.*

1942. **C. vulgaris.** *Linn.*, 76.

Native, Brit., 1-7. Spring and Summer.

Very common in the dykes of all the districts. Var. papillata, *Wallr.* (H.F.P.). Other vars. not yet determined.

1948. **Tolypella glomerata.** *Leonh.*, 27.

Native, Eng. Spring and Summer.

Abundant in a dyke near Haltemprice, Cottingham.*

1950. **T. intricata.** *Leonh.*, 12.

Native, Eng.

In dykes near Dunswell, Cottingham (the author and C.W. in 1901, *fide* Wats. Botanical Exch. Club Report).

1955. **Nitella translucens.**

Nat., Eng. Spring and Summer.

Pond on the Barlby side of Skipwith Common (C.W.),* September, 1900.

1956. **N. flexilis.** *Agardh.*, 30.

Nat., Eng. Spring and Summer.

Not infrequent in Holderness dykes. Near Cottingham Beck.*

APPENDIX.

EAST RIDING MOSSES AND HEPATICS

By J. J. Marshall.

So far as can be gathered, the first record of any East Riding mosses occurs in Robert Teesdale's list, published in the Linnean Transactions for 1880. In Scaum's "Beverlac" a few mosses are included in a list of plants found in the neighbourhood of Beverley. Short and imperfect lists have been published also by Henry Baines, in his "Yorkshire Flora," 1840, and by the accomplished Dr. Spruce of Coneysthorpe, in 1845. In 1878 Dr. H. F. Parsons prepared a list from all known sources, which was published in the Transactions of the Yorkshire Naturalists' Union. Whilst admittedly incomplete, the list included 176 species. More recently Messrs. M. B. Slater, F.L.S., of Malton, Mr. William Ingham of York, Mr. J. F. Robinson of Hull, and myself have devoted some attention to the moss flora of the riding, resulting in many additions being made to previous lists. Many of these are new to the riding, and a few are additional records for the county. The district is not a very favourable one for the bryologist, lacking those dreary moorlands, waste commons, and above all the rocky beds of streams, so dear to the heart of the moss-hunter. Nearly all the mosses of this district come to perfection during the winter months—from October to March—so that the botanical student can, if he feels so disposed, continue his studies throughout the year.

Abbreviations: — W.I. = W. Ingham; J.J.M. = J. J. Marshall; R.S. = Dr. Robert Spruce: M.B.S. = Matthew B. Slater; H.F.P. = Dr. H. F. Parsons. An asterisk (*) before a record indicates that it is new to the East Riding, and two asterisks (**) = new to Yorkshire.

The following is a complete list to date of all the known mosses and hepatics recorded in the riding :—

ACROCARPI.

SPHAGNACEÆ.

Sphagnum acutifolium. *Ehrh.* **Sphagna acutifolia,** *Schimp.* Langwith Moor (R.S.); Riccall Common (H.F.P.).

Sphagnum fimbriatum, *Wils.* Var. **robustum,** *Braithw. C. fr.* (abundant) Skipwith Common (W.I.).

S. subnitens, *Russ and Warnst.* Var. **flavo rubellum,** *Warnst.* Skipwith Common, *C. fr.* (W.I.).

Var. **griseum,** *Warnst.* Skipwith Common (W.I.).

Var. **virescens,** *Warnst.* Skipwith Common (W.I.).

Sphagnum squarrosum, *Pers.* **Sphagna squarrosa,** *Schimp.* Langwith Moor (R.S.); Cliff Wood (H.F.P.).

Sphagnum cuspidatum, *Ehrh.* **Sphagna cuspidata,** *Schimp.* Langwith Moor (R.S.); Riccall Common (H.F.P.).

Var. **falcatum,** *Russ.* Barmby Moor; Riccall Common (W.I.).

Var. **submersum,** *Schimp.* Skipwith Common (W.I.).

S. molluscum, *Bruch.* Langwith and Barmby Moors (R.S.); *forma* **compacta,** *Warnst.* Skipwith Common; Barmby Moor (W.I.).

Sphagnum compactum, *DC.* **Sphagna rigida,** *Schimp.*

Var. **subsquarrosum,** *Warnst.* Skipwith and Strensall Commons; Barmby Moor (W.I.).

Var. **imbricatum,** *Warnst.* Skipwith Common (W.I.).

Sphagnum contortum (Schultz), *Limpr.* **S. subsecundum,** *Limpr.* **S. subsecunda,** *Schimp.* Riccall Common (H.F.P.); Skipwith Common (W.I.); Skipwith Common (W.I.).

S. inundatum, *Warnst.* Skipwith Common (W.I.).

Sphagnum rufescens, *Warnst.* Skipwith Common (W.I.).

S. crassicladum, *Warnst.* Skipwith Common (W.I.).

Sphagnum cymbifolium. Sphagna cymbifolia, *Schimp.* Langwith Moor (R.S.); Riccall Common (H.F.P.).

Var. **fusco-flavescens,** *Russ.* Skipwith Common (W.I.).

Var. **glaucescens,** *Warnst.* Skipwith Common (W.I.).

S. papillosum, *Lindb., forma* **confertum.** Var. **sub-læve,** *Limpr., forma* **glaucescens,** Skipwith Common (W.I.).

****S. rigidum.** Var. **compactum,** *Brid.* Langwith Moor (R.S.); Riccall and Breighton Commons (H.F.P.)

GEORGIACEÆ.

Georgia pellucida (L.), *Rabenh.* Kennythorpe Moor (M.B.S.).

POLYTRICHACEÆ.

Catharinea undulata (L.), *Web Mohr.* York (R.S.); Cliff (H.F.P.); Market Weighton, Beverley, &c. (J.J.M.).

Polytrichum subrotundum, *Huds.* Langwith Moor (R.S.); Market Weighton (J.J.M.).

P. aloides, *Hedw.* Langwith Moor (R.S.); Market Weighton (J.J.M.).

P. urnigerum (L.). Near York (R.S.).

***P. gracile,** *Dicks.* Near Holme-on-Spalding-Moor (J.J.M.).

P. attenuatum, *Menz.* Woods East of York (R.S.); Houghton Wood (J.J.M.).

Polytrichum piliferum, *Schreb.* Barmby, Langwith and other Moors (R.S.); Holme (H.F.P.); Market Weighton, &c. (J.J.M.).

P. juniperinum, *Willd.* Barmby, Langwith and other Moors (R.S.); Holme (H.F.P.); Market Weighton (J.J.M.).

*P. strictum, *Banks.* Allerthorpe Common (M.B.S. and J.J.M.).

P. commune (L.). Abundant on most moors.

FISSIDENTACEÆ.

*Fissidens exiguus, *Sull.* Middlethorpe, Beverley Westwood (J.J.M.).

*F. viridulus (Swartz), *Wahl.* Goodmanham (J.J.M.)

F. incurvus, *Starke.* Near York (R.S.); Beverley Westwood (J.J.M.).

*β tamarindifolius (Don). Swinemoor, Beverley (J.J.M.).

Fissidens bryoides (L.), *Hedw.* Abundant everywhere.

F. adiantoides (L.), *Hedw.* Banks of Ouse and Derwent (R.S.); Drewton (H.F.P.); Market Weighton (J.J.M.).

F. taxifolius (L.), *Hedw.* Howsham (M.B.S.); Welton and North Driffield (H.F.P.).

LEUCOBRYACEÆ.

Leucobryum glaucum (L.), *Schimp.* Langwith and Barmby Moors (R.S.); Howsham (M.B.S.); Riccall Common and Holme-on-Spalding-Moor (H.F.P.); Houghton Wood (J.J.M.).

DICRANACEÆ.

Archidium alternifolium (Dicks.), *Schimp.* Langwith Moor in "fruit" (R.S.).

Pleuridium subulatum (Huds.), *Rab.* Near York, sandy situations (R.S.).

P. alternifolium (Kaulf), *Rab.* Langwith, &c., frequent (R.S.); Market Weighton, Beverley, &c. (J.J.M.).

Ditrichum flexicaule (Schleich), *Hampe.* Brantingham Dale and North Cave (H.F.P.); Market Weighton (J.J.M.).

Dicranella heteromalla (L.), *Schimp.* Riccall (H.F.P.); Market Weighton and Beverley (J.J.M.).

D. cerviculata (Hedw.), *Schimp.* Brough (H.F.P.); Langwith Moor (R.S.); Houghton Wood, Swinemoor, &c., Beverley (J.J.M.).

Anisothecium rubrum (Huds.), *Lindb.* Kirkham (M.B.S.); Market Weighton, Filey, &c. (J.J.M.).

*Var. **tenuifolium.** Market Weighton, Filey (J.J.M.).

*Var. **callistomum.** Londesborough, Goodmanham (J.J.M.).

A. rufescens (Dicks.), *Lindb.* Near York, stubbles (R.S.).

***A. crispum** (Schreb.), *Lindb.* Side of Goodmanham Beck (J.J.M.).

***Seligeria paucifolia** (Dicks.), *Carruth.* Goodmanham (J.J.M.); Danes Dyke, Flambro' (W.I. and J.J.M.).

S. calcarea (Dicks.), *Br. Sch.* Bishop Burton (R.T., 1797); Bishop Burton, Goodmanham, Danes Dyke, Etton, Beverley (J.J.M.).

The oldest record also has been recently confirmed.

***Campylopus pyriformis** (Schultz), *Brid.* Houghton Wood, wood near Market Weighton (J.J.M.).

C. fragilis (Dicks.), *Br. Sch.* Riccall Common (H.F.P.); woods east of York (R.S.); Barmby Moor (J.J.M.).

C. flexuosus (L.), *Brid.* Houghton Wood (J.J.M.).

Dicranoweissia cirrata (L.), *Lindb.* Thatch roofs near Barlby and Lund (H.F.P.); Market Weighton and Beverley (J.J.M.).

Dicranum scoparium (L.), *Hedw.* Woods towards Ouse and Derwent (R.S.); Riccall and Holme (H.F.P.); Market Weighton, &c. (J.J.M.).

D. majus, *Sm.* Cliff Wood near Selby (H.F.P.).

D. Bonjeani, *De Not.* Langwith and Barmby Moors (R.S.); Cliff Wood and Skipwith (H.F.P.); Market Weighton (J.J.M.).

D. spurium, *Hedw.* Houghton and Barmby Moors (R.T.). Discovered by Teesdale at Barmby Moor about 1770. Figured in Eng. Bot. from his specimens. Refound by R. S., 5th Nov., 1842, and in fruit, July 1843. Grows also on Langwith and Woodhouse Moors. Barmby Moor, Market Weighton (J.J.M.).

****D. undulatum.** *Erhr.* Very rare in Britain. Woods between Market Weighton and Holme-on-Spalding Moor (J.J.M., 1896). New to Yorkshire.

***D. fuscescens**, *Turn.* A very small form on trees, Beverley Westwood (J.J.M.).

Ceratodon purpureus (L.), *Brid.* Abundant everywhere; when barren, often confounded with other plants.

TORTULACEÆ.

Ephemerum serratum (Schreb), *Hampe.* Beverley (R.T.); Market Weighton (J.J.M.). *E. minutissimum* is believed to occur, but requires confirmation.

Phascum acaulon (L.). Brough (H.F.P.). Abundant everywhere (J.J.M.).

***P. Floerkei,** *Web Mohr.* Near Kiplingcotes (J.J.M. 1896).

P. curvicolle, *Ehrh.* Wolds between Beverley and Market Weighton (R.T.); near Kiplingcotes (J.J.M.).

Pottia recta (With.), *Mitt.* With the last (R.T.); near Kiplingcotes, also Goodmanham (J.J.M.).

***P. bryoides** (Dicks.), *Mitt.* Market Weighton, Londesbro (J.J.M.).

P. truncatula (L.), *Lindb.* Market Weighton, Sancton, Beverley, &c. (J.J.M.).

P. Hiemii (Hedw.), *Fuern.* Brough (H.F.P.); usually found on the sea-coast.

P. intermedia (Turn.), *Fuern.* In gardens near York (R.S.).

P. lanceolata (Hedw.), *C.M.* Welham (M.B.S.); Welton (H.F.P.); Market Weighton, Kiplingcotes, Etton (J.J.M.).

P. Starkei (Hedw.), *C. Muell.* Kirkham (M.B.S.); near York (R.S.).

Var. **Davallii** (Lin.), *Lindb.* Market Weighton (J.J.M.).

Tortula pusilla (Hedw.), *Mitt.* Westow (R.S.); Ellerker (H.F.P.); Newbald, Sancton, Market Weighton (J.J.M.).

****T. brevirostris,** *Hoop Grev.* Very rare. Gravel Pit near Kiplingcotes (J.J.M.). New to Yorkshire, the habitat since destroyed by removal of gravel. Mr. Ingham has, however, recently discovered it near Tadcaster. It cannot be found at its two previous British stations — Edinburgh and Ashwood Dale, Buxton.

***T. stellata** (Schreb.), *Lindb.* With the last (J.J.M.).

Tortula ericœfolia (Neck), *Lindb.* Mud-capped walls, Westow (R.S.); near Kirkham (M.B.S.); Ellerker (H.F.P.).

T. aloides (Koch.), *De Not.* Westow (R.S.); Kiplingcotes (J.J.M.).

T. muralis (L.), *Hedw.* Grows everywhere on walls.

T. subulata (L.), *Hedw.* Abundant on sandy soils.

*T. **angustata**, *Wils.* Closely allied to the last, but prefers the cold wet clays on the north and east coast, within a few miles of the sea. Swinemoor, Beverley (J.J.M.)

T. mutica (Schultz.), *Lindb.* Trees by River Derwent, Kirkham (M.B.S.); also near Pulfin, River Hull (J.J.M.).

T. papillosa, *Wils.* On tree trunks, York Dale (M.B.S.); Market Weighton, Withernsea (J.J.M.). Only found in fruit at the Antipodes, Australia, and New Zealand.

T. lævipila (Brid.), *Schwæg.* Frequent on trees on the East Riding, but only in small quantity, York Dale (M.B.S.); Drewton and Brough (H.F.P.); Market Weighton (J.J.M.).

*T. **montana** (Nees.), *Lindb.* Market Weighton, Drewton Dale (J.J.M.).

T. ruralis (L.), *Erhr.* Heslerton (M.B.S.); Brough (H.F.P.); Market Weighton (J.J.M.).

*Var. **arenicola** (Braith.). Spurn, on the sand hills (J.F.R); ditto *C. fruit* (J.J.M).

Mollia, *Schrank.* **Mollia crispa**, *Hedw. Lindb.* Figham, near Beverley (R.T.); Goodmanham (J.J.M.).

M. microstoma (Hedw.), *Lindb.* Norton (M.B.S); Langwith Moor (R.S.); Market Weighton, Beverley, &c. (J.J.M.).

M. viridula (L.), *Lindb.* Eddlethorpe (M.B.S.); Welton (H.F.P.); Market Weighton, &c. (J.J.M.).

*Mollia verticillata (L.), *Lindb.* Side of Goodmanham Beck (J.J.M.).

*M. crispula (Bruch.), *Lindb.* Danes Dyke (W.I.).

Barbula rubella (Hoffm.), *Mitt.* Abundant everywhere.

B. lurida (Hornsch), *Lindb.* Blacktoft (H.F.P.); Market Weighton (J.J.M.).

B. brevifolia (Dicks.), *Lindb.* Filey (J.J.M.), (W.I.); Goodmanham (J.J.M.).

B. fallax, *Hedw.* Brough (H.F.P.); Market Weighton, Beverley (J.J.M.).

B. rigidula (Hedw.), *Mitt.* Broomfleet (H.F.P.).

B. Hornschuchii, *Schultz.* Brough (J.F.R.); Market Weighton (J.J.M.).

B. convoluta, *Hedw.* Brough (H,F.P.); Market Weighton, in fine fruit (J.J.M.).

B. unguiculata (Huds.), *Hedw.* Common everywhere.

Leersia extinctoria (L.), *Leyss.* North Cave (H.F.P.); Burdale (M.B.S.); Arras (J.J.M.).

*L. contorta (Wulf), *Lindb.* Goodmanham (J.J.M.). This common North and West Riding plant is extremely scarce in the East Riding.

GRIMMIACEÆ.

Grimmia apocarpa (L.), *Hedw.* Wall near Whitewale (M.B.S.); Drewton and Brough (H.F.P.); Market Weighton, Sancton, &c. (J.J.M.).

G. pulvinata (L.), *Sm.* Ellerker (H.F.P.); Market Weighton (J.J.M.).

Zygodon viridissimus (Dicks), *Br.* Sledmere (M.B.S.); Brough and Holme (H.F.P.); Market Weighton, Welton Dale, Filey, &c. (J.J.M.).

Orthotrichum affine, *Schrad.* Brough (H.F.P.); Goodmanham (J.J.M.). On trees everywhere.

O. striatum (L.), *Hedw.* Near York (R.S.).

O. Lyellii (Hook), *Tayl.* Trees near Sledmere (M.B.S.), and near Londesbro' (J.J.M.).

O. diaphanum, *Schrad.* On trees everywhere.

O. cupulatum, *Hoffm.* Walls towards Elvington (R.S.); Stones of lock, Market Weighton Canal (J.J.M.).

O. anomalum, *Hedw.* Walls towards Elvington (R.S.); Goodmanham (J.J.M.).

O. tenellum, *Bruch.* On trees near York, scarce (R.S.).

*O. **pulchellum**, *Brunton.* Birdsall (M.B.S.); Danes Dyke (Ingham and Marshall).

Weissia Bruchii (Hornsch.), *Lindb.* Trees near Sledmere (M.B.S.). Ditto, Houghton Wood (J.J.M.).

W. ulophylla, *Ehrh.* Woods by Ouse and Derwent (R.S.).
Var. β **intermedia**, *Schimp.* Cliff Wood, Selby (H.F.P).

W. phyllantha (Brid.), *Lindb.* Near York, Market Weighton, Filey, and Danes Dyke (J.J.M.).

SPLACHNACEÆ.

Tetraplodon angustatus (Swartz.), *Br. Sch.* Bog near Cottingham (R.T.). The only East Riding record for over 100 years.

FUNARIACEÆ.

***Physcomitrella patens** (Hedw.), *Br. Sch.* Near Norton (M.B.S.); Market Weighton, Swinemoor, Beverley (J.J.M.).

Physcomitrium pyriforme (L.), *Brid.* Brantingham (H.F.P.); Market Weighton, Swinemoor, Beverley (J.J.M.).

Funaria obtusa (Dicks.), *Lindb.* Langwith Moor (R.S.).

F. fascicularis (Dicks.), *Schimp.* Langwith Moor (R.S.).

F. hygrometrica (L.), *Sibth.* Abundant everywhere.

BRYACEÆ.

***Leptobryum pyriforme** (L.), *Wils.* On the site of old Brick Yard, Market Weighton, since ploughed up and station destroyed (J.J.M.).

Pohlia nutans (Schreb.), *Lindb.* Common on sandy and turfy heaths.

P. carnea (L.), *Lindb.* Holme and Welton (H.F.P.). Market Weighton (J.J.M.).

P. annotina (L.), *Lindb.* Sand Hall, near Howden, and Holme (H.F.P.); Langwith Moor in fruit (R.S.).

P. albicans (Wahlen), *Lindb.* Common in ditches, generally barren.

Bryum inclinatum (Sw.), *Bland.* Walls near River Derwent (R.S.); Market Weighton (J.J.M.). Abundant.

B. pendulum (Hornsch), *Schimp.* Walls near York, rare (R.S.); Market Weighton (J.J.M.).

B. cernuum (Sw.), *Lindb.* Heslington fields (R.S.); Springwells, Market Weighton (J.J.M.).

***B. intermedium**, *Brid.* Market Weighton (J.J.M.).

B. bimum, *Schreb.* Heslington fields (R.S.); Market Weighton (J.J.M.).

B. cæspiticium (L.).

B. argenteum (L.). Common everywhere.

Bryum bicolor, *Dicks.* Langwith Moor (R.S.); Londesbro' (J.J.M.); Goodmanham (J.J.M.). An extremely dwarf form.

B. erythrocarpon, *Schwæg.* Barmby and Woodhouse Moors (R.S.); Market Weighton Common (J.J.M.).

*__B. murale__, *Wils.* In fine fruit, Goodmanham (J.J.M.), 1896.

B. pallens, *Swartz.* Langwith Moor and Heslington (R.S.); Market Weighton; in "fruit," Filey (J.J.M.).

B. turbinatum (Hedw.), *Schwæg.* Newbald Springs (J.F.R.).

B. ventricosum, *Dicks.* Market Weighton (J.J.M.); Filey (W.I. and J.J.M.); Swinemoor, Beverley (J.J.M.).

B. capillare (L.). Abundant everywhere.

BARTRAMIACEÆ.

Philonotis fontana (L.), *Brid.* (M.B.S.).

P. calcarea, *Schimp.* Newbald Springs (H.F.P., and Mr. T. Dennis).

Breutelia, *Schimp.* **B. chrysocoma** (Dicks.), *Lindb.* Houghton Moor (Withering), Langwith Moor (R.S.),

MNIACEÆ.

Gymnocybe palustris (L.), *Freis.* Langwith Moor (R.S.); Riccall Common, in "fruit" (H.F.P.); Houghton Moor (J.J.M.).

Orthopyxis androgyna (L.), *P. Beauv.* Langwith Moor (R.S.); Lund (H.F.P.), Market Weighton Common (J.J.M.).

Mnium hornum (L.). In all heathy woods.

M. rostratum, *Schrad.* Woods (R.S.); Holme (H.F.P.).

M. undulatum (L.). Hedgerows sterile (R.S.); Brough (H.F.P.); in fine "fruit," Goodmanham (J.J.M.).

M. punctatum (L.). Bog near Heslington (R.S.); Cliff (H.F.P.); Houghton Wood (J.J.M.).

PLEUROCARPI.

HYPNACEÆ.

Thuidium tamariscifolium (Neck.), *Lindb.* North Driffield (H.F.P.); Houghton Wood, in "fruit" (J.J.M.).

***T. recognitum** (Hedw.), *Lindb.* Market Weighton (J.J.M.).

Leskea polycarpa, *Ehrh.* Near Laysike (M.B.S.); Riccall (H.F.P.).

Var. β **paludosa** (Hedw.), *Schimp.* Beverley (R.T.). a very old record; The Pulfin, banks of River Hull (J.J.M.).

***Anomodon viticulosus** (L.), *Hook Tayl.* Springwells, Goodmanham (J.J.M.).

Amblystegium filicinum (L.), *DeNot.* Kennythorpe Moor (M.B.S.); Welton (H.F.P.); Goodmanham, in "fruit" (J.J.M.).

A. irriguum (Wils.), *Schimp.* Kirkham Locks (R.S.); Welham (M.B.S.).

A. varium (Hedw.), *Lindb.*

A. serpens (L.), *Br. Sch.* Eddlethorpe (M.B.S.); Drewton (H.F.P.).

*Amblystegium Juratzkæ, *Schimp.*

A. riparium (L.), *Br. Sch.* Heslington fields (R.S.); Brantingham (H.F.P.); Market Weighton and Pocklington (J.J.M.).

***A. Kochii** (Br. Sch.), *Lindb.* Rare, Driffield (W.I.), both the large typical form and a small one.

***A. elodes** (Spruce), *Lindb.* Barmby Moor and Market Weighton (J.J.M.).

A. chrysophyllum (Brid.), *DeNot.* Kirkham (R.S.); Kiplingcotes (M.B.S. and J.J.M.).

A. stellatum (Schreb.), *Lindb.* Bog in Heslington fields (R.S.); Brough (H.F.P.); rare in "fruit," at Market Weighton (J.J.M.).

A. polygamum, *Br. Sch.* Bog in Heslington fields (R.S.).

A. glaucum (Lam.), *Lindb.* Drewton (H.F.P.).

A. Sendtneri (Schp.), *DeNot.* Newbald and Skipwith (H.F.P.); Market Weighton (J.J.M.).

A. revolvens (Sw.), *DeNot.*

Var. **Cossoni**, *Ren.* Driffield (W.I.).

A. fluitans (L.), *DeNot.* Skipwith (H.F.P.); Market Weighton (J.J.M.).

Var. γ. **Jeanbernati**, *Renauld.* Skipwith (W.I.).

A. scorpioides (L.), *Lindb.* Riccall Common (H.F.P.).

A. palustre (Huds.), *Lindb.* Laysike (M.B.S.); Market Weighton, Beverley (J.J.M.).

A. giganteum (Schimp.), *DeNot.* Skipwith (W.I.).

A. cordifolium (Hedw.), *DeNot.* Bog in Heslington fields (R.S.); Beverley (R.T.).

A. stramineum (Dicks.), *DeNot.* Riccall Common (H.F.P.).

Hypnum purum (L.). In "fruit," Sledmere (M.B.S.); Welton (H.F.P.); ditto, Market Weighton (J.J.M.).

H. cæspitosum, *Wils.* York, on tree trunks by River Ouse (R.S.).

H. striatum, *Schreb.* Hedgebanks (R.S.); Riccall and Welton (H.F.P.); Londesborough (J.J.M.), in "fruit."

*H. **pallidirostre,** *A. Braun.* Beverley Westwood (J.J.M.).

H. prælongum (L.). Kirkham, Langwith (R.S.); Welton and Riccall (H.F.P.); Market Weighton, in "fruit" (J.J.M.).

H. Swartzii, *Turn.* Holme and Brough (H.F.P.); Market Weighton (J.J.M.).

H. crassinerve, *Tayl.* Lowthorpe (M.B.S.).

H. Teesdalei, *Smith.* Beverley (R.T.), an old record, requiring confirmation.

*H. **Algirianum,** *Brid.* Goodmanham Wold (J.J.M.).

H. piliferum, *Schreb.* Firby Wood (R.S.); Brantingham (H.F.P.); Oven Wood, Goodmanham.

H. rusciforme, *Neck.* Abundant on stones in streams.

H. murale, *Neck.* Risby (R.S.); Burythorpe (M.B.S.); Welton (H.F.P.); Goodmanham and Londesbro' (J.J.M.).

H. confertum (Dicks.), *Br. Sch.*

H. velutinum (L.). Everywhere.

H. viride, *Lamk.* Kirkham (R.S.).

Hypnum rutabulum (L.). Very common.

*Var. β **longisetum**, *Brid.* Near Langton (M.B.S.).

Var. δ **plumulosum, *Schimp.* Wood near Market Weighton, rare.

H. albicans, *Neck.* York and Grimston (R.S.); Holme (H.F.P.); Goodmanham, in "fruit" (J.J.M.).

H. glareosum, *Bruch.* Near York, frequent (R.S.).

H. lutescens, *Huds.* Kirkham (R.S.); Welton (H.F.P.); Market Weighton, Brantingham (J.J.M.).

H. sericeum (L.). Sledmere (M.B.S.); Barlby (H.F.P.); Londesbro' Park, in "fruit" (J.J.M.).

Isothecium myosuroides (L.), *Brid.* Firby Wood (R.S.); Riccall (H.F.P.).

I. viviparum (Neck.), *Lindb.* Cliff Wood (H.F.P.); Beverley Westwood (J.J.M.).

Helicodontium pulvinatum (Wahlen.), *Lindb.* East banks of Ouse, near York (R.S.).

Hylocomium proliferum (L.), *Lindb.* Heaths east of York (R.S.); in "fruit" at Holme (H.F.P.).

H. parietinum (L.), *Lind.* Langwith Moor (R.S.); Holme, in "fruit" (H.F.P.). Ditto, Market Weighton (J.J.M.).

H. squarrosum, *Linn.* Welton and Holme (H.F.P.); Market Weighton, in "fruit" (J.J.M.).

H. triquetrum, *Linn.* Woods near York (R.S.); Holme, in "fruit" (H.F.P.),

Campylium hispidulum (Brid.), *Mitt.*

Var. **Sommerfeltii**, *Myr.* Kirkham Woods and Abbey (M.B.S.) and (R.S.).

Ctenidium molluscum (Hedw.), *Mitt.* Woods near the Derwent (R.S.); Welton (H.F.P.). Frequent on the Wolds (J.J.M.).

Stereodon imponens (Hedw.), *Brid.* Skipwith Common (H.F.P.); wood near Market Weighton (J.J.M.).

S. cupressiformis (L.), *Brid.* Abundant everywhere.

Var. β ericetorum. Wood near Market Weighton, in "fruit" (J.J.M.).

S. resupinatus, *Wils.* Kelfield (H.F.P.); Londesbro' Park, in "fruit" (J.J.M.).

Hypnum cordifolium, *Hedw.* Bog in Heslington Fields (R.S.); Beverley (R.T.) and (M.B.S.).

H. cuspidatum, *Linn.* In marshes, a very handsome plant when fruiting abundantly.

H. scorpioides, *Linn.* Riccall Common (H.F.P.).

***Cylindrothecium concinnum,** *De not.* Langton Wold (M.B.S.); Market Weighton (J.J.M.).

Cryphœa heteromalla, *Hedw.* Sledmere and Flamborough (M.B.S.); Brantingham and MarketWeighton (H.F.P.).

Leucodon sciuroides, *Linn.* Howsham (M.B.S.); Howden (H.F.P.); Londesborough Park (J.J.M.).

Neckera crispa, *Linn.* Woodale, South Cave (H.F.P.).

N. complanata, *Linn.* Woods near York (R.S.); Londesborough Park, in "fruit" (J.J.M.).

Homalia trichomanoides, *Schreb.* Woods by Derwent (R.S.); Cliff Wood (H.F.P.).

Climacium dendroides (W. and M.). Bog near Heslington (R.S.); Skipwith (H.F.P.); Goodmanham, in "fruit." The Pulfin, River Hull (J.J.M.).

Pylaisia polyantha, *Schreb.* Near York (R.S.); Springwells, Goodmanham, abundant on willows and hawthorn (J.J.M.).

Plagiothecium denticulatum, *Linn.* Langwith, &c. (R.S.); Lund (H.F.P.); Houghton Wood, &c. (J.J.M.).

P. Borrerianum, *Spruce.* Cliff Wood (H.F.P.).

P. sylvaticum, *Linn.* Sledmere (M.B.S.); Beverley Westwood (J.J.M.).

P. undulatum, *Linn.* Cliff Wood and Holme (H.F.P.); Elvington (R.S.); Houghton Wood, in "fruit" (J.J.M.).

Rhynchostegium depressum.

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(Natural Orders and Genera—Mosses omitted).

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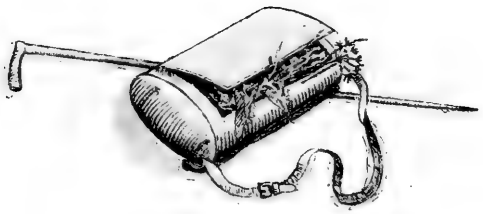
INCLUDING THE COMMON AND LOCAL PLANT NAMES.



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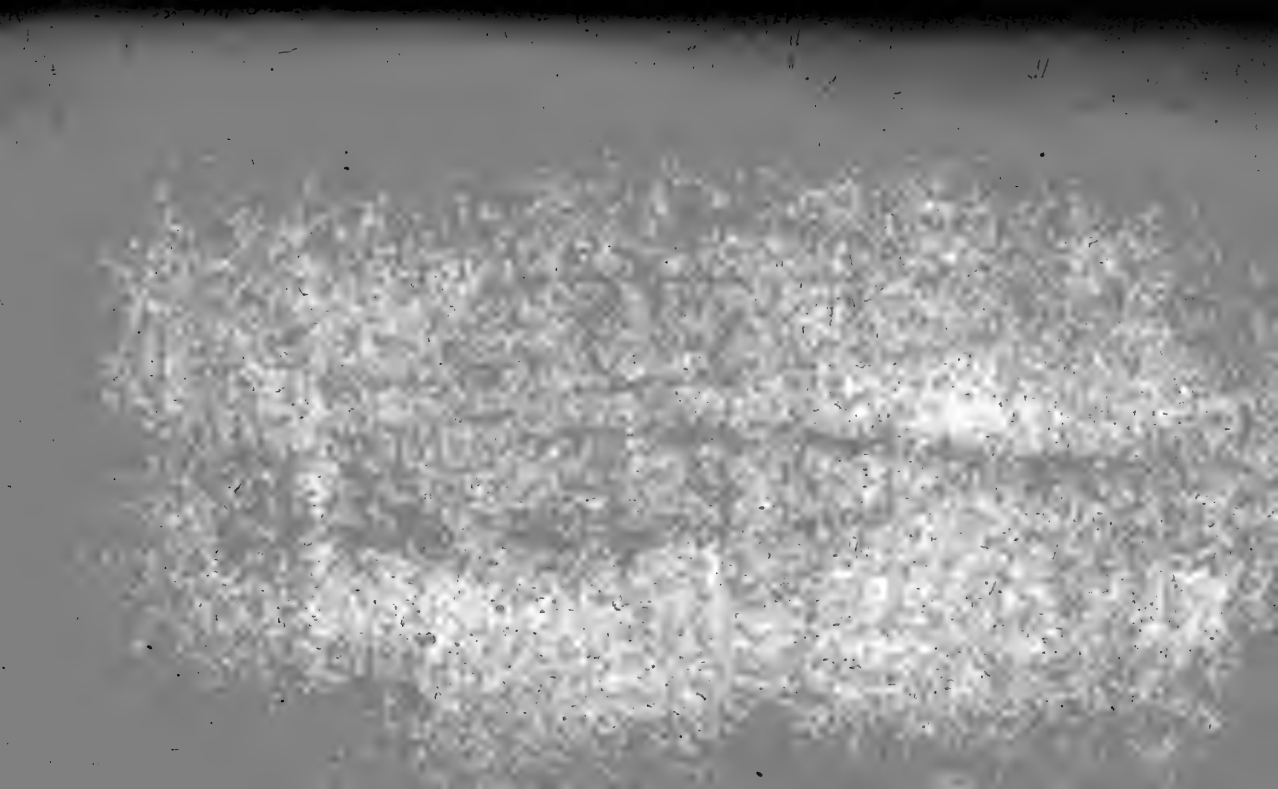

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