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# A FLORA OF THE ISLAND OF JERSEY

WITH A LIST OF THE PLANTS OF THE CHANNEL ISLANDS IN GENERAL, AND REMARKS UPON THEIR DISTRIBU-TION AND GEOGRAPHICAL AFFINITIES

ΒY

## L. V. LESTER - GARLAND $\sim M.A.$ , F.L.S.

PRINCIPAL OF VICTORIA COLLEGE, JERSEY FORMERLY FELLOW OF ST. JOHN'S COLLEGE, OXFORD

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## CONTENTS.

т	T	PAGE
I.	INTRODUCTION	• iv
	(a) Description of Jersey.	
	(b) Climate.	
	(c) Present Condition.	
	(d) Sources of Information.	
	(e) Engler's System.	
II.	A LIST OF THE GENERA OF BRITISH PLANTS ARRANGED	D
	IN ACCORDANCE WITH ENGLER'S SYSTEM .	• 3
III.	Flora of Jersey	. 27
IV.	<ul> <li>A LIST OF THE FLORA OF THE CHANNEL ISLANDS, WITH REMARKS UPON THE GEOGRAPHICAL DISTRIBUTION AND AFFINITIES OF THE SPECIES</li> <li>(a) List of the Species.</li> <li>(b) Comparison of the Islands.</li> <li>(c) Relation to the Flora of Europe in General.</li> <li>(d) Relation to the Flora of the French Coast.</li> <li>(e) Naturalised Aliens and Casuals.</li> <li>(f) Loss to the Indigenous Flora.</li> <li>(g) Minor Points of Interest.</li> </ul>	
v.	Bibliography	195
VI.	INDEX OF GENERIC NAMES	. 197

### INTRODUCTION.

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I. JERSEV, the largest of the Channel Islands, lies in the Bay of St. Malo, off the north-west coast of France, in lat.  $49^{\circ}$  15' N. and long.  $2^{\circ}$  10' W. The distance from the French coast is about 16 miles on the east and about 30 on the south.

The shape is a rough parallelogram, the sides of which are indented on the east, south, and west by sandy bays. The length (from east to west) is about 11 miles, and the breadth about 54. The longest diagonal (N.W. to S.E.) measures about 13 miles. The total land area is about 45 square miles, and the acreage 28,717 (64,613 vergées). The general character of the surface is a flat plateau, sloping gently from north to south, and intersected by a number of nearly parallel valleys which run right across the island, so that almost the whole of the drainage finds its way to the south coast. The north coast is harbourless and fringed with high cliffs and precipitous rocks. The great sandy waste of St. Ouen's Bay occupies almost the whole of the west side. On the south and east the sandy bays of St. Brelade's, St. Aubin's, St. Clement's, and Grouville follow one another in the order In St. Aubin's, St. Clement's, and Grouville Bays a named. tract of low-lying alluvial land, formerly marshy but now drained and cultivated, intervenes between the edge of the plateau and the In the south-west there is a remarkable accumulation of sea. blown sand known as the Quenvais. There is no Noury, p. 156. hill\* in Jersey, as distinguished from the cliffs on the coast and the sides of the valleys. The streams are necessarily mere rivulets, and the only piece of water of any importance is St. Quen's Pond.

\* The highest points in the Island are Mont Mado and the cliffs to the west of Bouley Bay, each 473 feet.

From a physical point of view, Jersey is a part of France. Like the other Channel Islands, it is merely an excresscence upon a submerged platform of rocks which extends under water from the French coast. An elevation of land to the extent of about

Ansted and Latham, Ed. i. p. 6 30 fathoms would fill up most of the Bay of St. Malo, and the surrounding sea is so full of rocks and reefs (some of them, Les Îles Chausey, Les Min-

quiers and the Écréhos Rocks, of considerable extent) as to render the navigation difficult and dangerous in hazy weather. At present the sea appears to be gaining very slowly upon the Without accepting the venerable fable that the Bishop land. of Coutances was once able to cross the silver Noury, p. 148. streak that then divided Jersey from France on a plank, it may safely be assumed that the Island was once much larger than it is now. The fall of the tide, which is sometimes over 40 feet, lays bare enormous stretches of wild, desolate rocks which were once land; and at various points of the coast detached rocks may be seen which are covered with the same superficial deposits as the nearest shore, and are obviously nothing but broken fragments of the land, and not rocks which have emerged from the sea. Again, there are traces of a "sub-Noury, pp. 140-144. merged forest " in St. Ouen's Bay, near L'Étac, and

the character of the peat deposits on the low-lying land seems to suggest a derivation from a larger land area than the present. On the other hand, the presence of raised beaches at various levels seems to prove that in still earlier times the island was buried more deeply than it is now in the sea.<sup>\*\*</sup>

The rocks of Jersey consist almost entirely of granite (or syenite), metamorphic schists and porphyries, with an ancient *Noury*, p. 103. conglomerate in the north-east. It is doubtful whether there is any unaltered sedimentary rock in the Island. Chalk and limestone are entirely absent. Inequalities in the original surface are largely filled up with superficial quaternary deposits of brick clay or brick earth, generally unstratified. In some of the low-lying districts (*e.g.*, under St. Helier's) there are deposits of peat, gravel, and stiff blue clay.

\* The best account of the geology is contained in "Géologie de Jersey," by Father C. Noury, S.J. *Cf.* also Dr. A. Dunlop's paper "On the Superficial Deposits of Jersey and Guernsey," in the Transactions of the Guernsey Society of Natural Science for 1897. The granitic and metamorphic rocks are all of enormous antiquity, Noury, p. 135. none later than the Cambrian formation. The whole of the Secondary and Tertiary series are entirely unrepresented. A few remains of animals have been found in the quaternary deposits, but fossils can hardly be said

*Noury*, p. 4. to exist. On the other hand, to the mineralogist "L'Île de Jersey offre dans le voisinage immédiat du Cotentin un massif éruptif du plus haut intérêt et riche en types vraiement exceptionels."

II. The climate of Jersey is mild and equable. Summer merges almost imperceptibly into autumn, and autumn into winter, and cold weather is rare before the New Year. Severe frosts are very unusual, and snow seldom lies long upon the ground. The coldest months are January and February, the warmest July and August. The number of hours of bright sunshine is large,\* but the air is always laden with moisture and often feels more chilly than the thermometer readings would seem to indicate.

Since 1894 meteorological observations have been regularly and scientifically made at the Observatory connected with the Maison St. Louis by Father M. Dechevrens, S.J. (see next page). These may be regarded as absolutely reliable, but eight years is a short period to take as a basis for meteorological means, and the amount of rainfall in the appended table is certainly too low, for 1899 and 1901 were exceptionally dry years.

These figures are taken from the yearly résumé published in the Bulletins Annuels of the Société Jersiaise. A paper on the climate of Jersey by the Rev. H. W. Yorke was printed in the Quarterly Journal of the Royal Meteorological Society (vol. xxv. No. 111) in 1899. His conclusions were based on data derived from several different sources, covering a far larger space of time (1844 to 1898), and may usefully be compared with the table already given. He gives the following yearly means :---

Barometer 29.977 inches	Sunshine 1930 hours
Shade Temperature $\dots 52^{\circ}$	Rainfall 34 inches
Coldest month (Jan.) 42°	Rainy days 190
Warmest month (Aug.) $63^{\circ}$	Hail or snow
Frost (in air) 13 days	Humidity 82
Frost on grass 49 days	Temperature of sea $54^{\circ}$

\* 1930 on an average of 15 years. (Rev. H. W. Yorke, Quarterly Journal of Meteorological Society, July, 1899.)

	1894	1895	1896	1897	1898	1899	1900	1061	Mean of 8 years.
Barometer—Mean Air Temperature (Fahr.)—	30.000	29-946	30.078	30.003	30-270	30-020	30-046	29-984	30.043
Mean	51.6	50.6	51.3	52.0	52.6	52.9	52.3	51.3	51.8
Max.	84.0	86.0	82.2	83.5	86.38	88.0	8.68	88-9	86
Min	13.5	14.9	29.1	27.9	31.3	23.0	0.08	21.6	23.9
Humidity	84	78.5	80	81	79	76	77	76	6.87
Rain in inches	35-960	31.434	29.772	32.931	27.216	23.898	30.237	23-903	29.418
Days on which rain fell	200	161	182	192	170	156	184	169	176
,, snow	4	18	9	6	œ	7	ø	20	10
Mean of January	40.9	38.3	42.5	40.0	44.3	46.0	44.7	42.1	42.3
Mean of July	8.09	60.4	63.1	62.0	61.2	63.5	64.6	63-7	62.4
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METEOROLOGICAL DATA FOR JERSEY.

viii

#### FLORA OF JERSEY.

III. For at least two centuries Jersey has been a much-cultivated island. As early as Dr. Falle's day there was "little barren ground," and "not a wood, hardly a thicket or coppice "; and though he and later writers speak of the thickly wooded appearance of the country, they all ascribe it to the trees which bordered every hedgerow, and to the small size of the fields. In the eighteenth century the chief production was cider, and the land was largely occupied with orchards. Falle\* thought that no country produced so much cider, not even Normandy, though little had been made in the time of William the Third. In 1808 more cider was still made than in any other equal area in Europe.+ In 1833 it was still the chief export, t but potatoes were becoming important. Now the orchards have to a very large extent disappeared, and most of the land is devoted to the cultivation of the profitable but prosaic early potato, to make room for which much rough land has been doubtless broken up, and many wooded hillsides deprived of their covering of trees. After the potatoes, which are dug in May and June, a crop of "roots" of some kind generally follows. In the sandy fields in low-lying parts of the coast, lucerne and clover have been sown for at least a century and a half, and with the seed have been introduced several Continental plants which have established themselves and become naturalised, e.g., Centaurea paniculata and Scabiosa maritima.

Much of the waste land which once existed has been brought under cultivation within the last fifty years, and some of the most interesting Jersey plants have been destroyed. St. Peter's and St. Lawrence Marshes have been drained; so has the marshy tract which once existed between St. Helier's and Samarès. The whole character of the sandy bays is being gradually altered by the sea-walls which are being built in various parts. The Bay of St. Aubin's, a great part of which was within living memory much as Nature made it, is now occupied with an almost unbroken succession of houses, and an imposing Promenade. The process will doubtless continue.

At the present time Jersey presents six different kinds of station, and each, to a very large extent, has its own flora.

(a) Sandy beaches, sand-dunes, and sandy fields near the sea.

- \* Falle's "Cæsarea," p. 154.
- + Lyte's "Jersey," p. 32.
- ‡ Inglis, "Channel Islands," p. 123.

(b) Granite sea-cliffs.

(c) Salt marshes—these have almost entirely disappeared.

- (d) Rough moorland and hillsides.
- (e) Ordinary, cultivated, flat table-land.
- (f) Sheltered, moist valleys and low-lying meadows.

It is worth noticing that most of the plants of S. and W. Europe, which form the most interesting feature of the Jersey Flora, affect station (a).

IV. Sources of information as to the Botany of Jersey.

In the introduction to the "Primitiæ Floræ Sarnicæ" (1839), Babington gives a short list of his authorities. He had remarkably little to go upon, and only two points deserve to be noticed. (1) He drew attention to the plants noted as having been found in Jersey by Dr. Sherard in Ray's Synopsis (1680-1690). These are interesting as being the earliest Jersey records. There are only eleven species, identified by Sir J. E. Smith with Chara gracilis. Cynosurus echinatus, Bromus madritensis, Briza minor, Phalaris arundinacea, Scirpus pungens, Helianthemum guttatum, Bartsia viscosa, Scrophularia Scorodonia, Echium plantagineum, and Gnaphalium luteo-album. (2) I have taken the trouble to exhume from the Report of the Jersey Agricultural and Horticultural Society for 1839, the list of plants mentioned by Babington as having been published by Professor La Gasca, of Madrid. It is dated "London, October 4, 1834," and was sent by Dr. Lindley (who ought to have known better) to Colonel Le Couteur, the President of the Jersey Society. It need only be said that this list is so full of obvious absurdities that it is absolutely valueless. Native and cultivated plants, plants that do occur and plants that do not and never did, are all jumbled together in inextricable confusion. I have ignored it, and have not included his plants even in the List of Ambiguities and Errors. Requiescat in pace.

The "Flora Sarnica" itself was, as Babington himself says, the result of "two summer visits" to the Islands in 1837 and 1888. It was also written when the author was quite a young man. These two facts are sufficient to account for its incompleteness. But it is also in some ways too complete. He records some sixty plants on the authority of Professor La Gasca and Mr. B. Saunders. The latter was an intelligent Nursery gardener, and had a very interesting collection of cultivated plants, but he was not a sound botanist, and his records are worth no more than those of the Professor. Again Babington records about twenty plants on his own authority which no one else has ever seen, *e.g.*, Plantago media certainly does not occur, yet he calls it "common." In some cases he may have been deceived with regard to the leaves of plants which were not in flower. On the other hand, there are some unaccountable omissions, *e.g.*, Narcissus Pseudo-Narcissus, Centaurea aspera, Orchis Morio. The fact appears to be that he had not sufficient time to study the flora of the Islands properly, and yet naturally wished to make his book as complete as possible, and so occasionally jumped to conclusions on insufficient evidence.

In the Bulletins Annuels of the Société Jersiaise the following lists have appeared :----

(a) List of the Plants of Mt. Orgueil. E. Duprey, 1894, p. 265ff.

(b) List of Phanerogams and Ferns. J. Piquet, 1896.

(c) Supplementary List to (b). 1898.

(d) List of Plants found on the Écrèhos Rocks. L. V. Lester, 1898.

Mr. Piquet's list is an advance in some ways on the "Flora Sarnica." Most of the imaginary species have disappeared, and it represents the results of fifty years' study of Jersey plants by a keen and intelligent observer. But there is little or no attempt to distinguish between natives and the most obvious aliens, and comparatively few localities are given.

The lists of plants in the two editions of Ansted and Latham's "Channel Islands" are derived from the "Flora Sarnica" and Mr. Piquet, and contain little that is original.

The various British Floras seem to depend almost entirely upon the "Flora Sarnica," and reproduce its errors with great fidelity, without contributing anything that is new.

In Jersey, as elsewhere, the study of plants has often been pursued with more zeal than discrimination, and a large number of records exist which still "need confirmation," and probably will continue to need it for some time to come. A list of these doubtful records is appended at the end of the Flora. I have excluded all plants which I have not either seen growing in Jersey myself or seen Jersey specimens of. The solitary exception, so far as I know, is Valerianella eriocarpa, which is admitted on the authority of Mr. J. W. White.

It is a pleasant duty to express my gratitude to many botanists

who have given me assistance in various ways. I owe much to Mr. J. Piquet, who has made the Jersey plants a lifelong study. I have also been allowed to inspect the collections of Mr. F. G. Piquet, the Rev. H. J. Summer, Mr. S. Guiton, and the Maison St. Louis. Two or three valuable collections of old Jersey plants had unfortunately been destroyed or dispersed before I had the opportunity of consulting them. Mr. Arthur Bennett, always ready to place his wide knowledge and sound judgment at the disposal of others, sent a list of records, and has inspected many of the more critical plants. To Mr. F. N. Williams I owe the suggestion that I should adopt Engler's system, and several valuable notes on Nomenclature. Help of various kinds has also been received from the authorities of the British Museum of Natural History, Messrs. H. and J. Groves, Mr. J. W. White, Mr. C. E. Salmon, Mr. C. P. Hurst, and the Rev. G. Henslow.

The relation of the Jersey Flora to the general Flora of Europe, the origin of the various groups of species, and other questions of general interest are reserved to be dealt with in the Remarks upon the Flora of the Channel Islands in general at the end of the volume.

V. The arrangement of the Flora is that of Engler's "Die Natürlichen Pflanzenfamilien," which is beginning to be adopted both on the Continent and in America. This is a new departure, which will possibly provoke adverse criticism. British botanists, as a rule, are very conservative: very few of them trouble themselves with systems at all; they confine themselves chiefly to the study of species, and such species only as grow within their own area. If they are ever to emancipate themselves from the insular ideas which too often dominate the science, they will have to learn to look abroad, and realise that British plants grow in other places besides Great Britain and Ireland, and that the British Flora is only an insignificant portion of the Flora of the globe, and cannot profitably be studied in the twentieth century without reference to the Flora of other countries.

The arrangement adopted in most, if not all, modern British Floras is based, either directly or indirectly, upon Bentham and Hooker's magnificent "Genera Plantarum" (1862–1883). This work is, primarily, as its title represents it to be, an unsurpassed collection of generic descriptions of the highest possible merit; but it does not profess to offer any original system in a broad sense of the word. The authors adhere, in the main, to the system of Jussieu (1789), as modified by A. P. De Candolle (1813), and the work was published before the German systems of Eichler (1883) and Engler (1887-1897) were elaborated. The profound change in men's views as to the import of Classification which has been introduced by the very general adoption of the ideas with which Darwin's name is associated, to say nothing of the results of many years of very productive botanical work, is entirely unrepresented. If the same work were to be done over again now, would Sir J. Hooker consent to entangle himself in the trammels of Jussieu? It is hard to imagine it, nor is it easy to conceive any botanist who desired to grasp the arrangement of the Plant World as a whole, and to realise the relation of the various parts, reverting to the ancient order after having studied the system of Engler going rearrangement of his herbarium. But to most British botanists Engler's system is entirely unknown, or known only as one among the many systems which they conceive of as annually produced by German industry. I will therefore venture to draw attention to some of the more important features.

The Plant World is divided into four great divisions: (1) Myxothallophyta, with which this book has nothing to do; (2) Euthallophyta, represented here by the Characeæ; (8) Archegoniatæ, represented by the Ferns, Equiseta, and Isoëtes; (4) Phanerogams.

The Phanerogams form two Sub-divisions: (1) Gymosperms, with six Classes (Cycadales, Benettitales, Cordaitales, Ginkgoales, Coniferæ, and Gnetales), all unrepresented in the Native Flora of the Channel Islands; and (2) Angiosperms, with two Classes (Monocotyledons and Dicotyledons).

The Monocotyledons comprise eleven Series (corresponding to the "Cohorts" of Lindley and the "Alliances" of Prantl), each containing so many Families or Orders. The Dicotyledons are divided into two Sub-classes: (1) Archichlamydeæ, with twenty-six Series, and (2) Metachlamydeæ Sympetalæ, with eight Series. The unscientific division Incompletæ disappears.

Each Series contains so many Families or Orders, which are divided into Tribes, and the latter into Genera and Species.

Sub-series, Sub-families, Sub-tribes, and Sub-genera are inserted as required.

There are thus eight main grades: Division, Sub-division, Class, Series, Family, Tribe, Genus, Species, and the various members in each grade are to be regarded as roughly on a level with one another. For instance, the Class "Ferns," or the Class "Lycopods," are to be equated, not with the various Families of the Phanerogams, but with the whole Class "Monocotyledons" or "Dicotyledons."

An attempt is also made to keep the terminations of the various grades as far as possible the same. The Series mostly end in —*ales*, the Families in —*aceæ*, the Sub-families in —*ideæ*, the Tribes in —*eæ*, the Sub-tribes in —*inæ*.

The general principle underlying the whole arrangement is the representation of a gradual ascent from the less completely to the more completely organised, from lower to higher types. The Compositæ are regarded as the highest type, as exhibiting in the flower-head characteristic of the genus, the most complete instance of the subordination of the individual flowers to the benefit of the whole. The adoption of this principle naturally involves a complete change in the order of succession of the Families.

It is generally recognised at the present time that no "linear" arrangement can truly represent the infinitely complicated relations between organisms which have been produced by the operation of the law of "Descent with Modification." There is no such thing as an unbroken succession of forms, and many groups lie quite off the line of normal development. But some systematic arrangement is a scientific necessity, and we are not yet in a position to construct a complete genealogical tree of the vegetable kingdom. At the same time there is no doubt that it is roughly true that a gradual ascent from the lower to the higher forms can be confidently traced.

It may be asked, What security have we that Engler's system is final, any more than that of Jussieu? No one supposes that it is final, but if the first explorers of a mountain-peak had refused to advance until they could see their way clear to the top, how many of the Alps or of the Andes would have been ascended?

Into vexed questions of nomenclature I have had neither time nor inclination to enter. The generic names are those of the "Pflanzenfamilien." The general tendency of the nomenclature is conservative, and will be very welcome to those botanists who care more for the things which words represent than for the words themselves. Much misdirected learning and ingenuity have been expended of late years on the renaming of plants. In one case I have most reluctantly been obliged to suggest a name for a species transferred by Engler to a new genus, for which I have been unable to discover a published name. I have done my utmost to assign the various species to the right genera, but I can hardly hope to have entirely avoided errors.

The assistance rendered by De Dalla Torre and Harms' "Genera Siphonogamarum ad Systema Englerianum Conscripta" has been invaluable as far as it goes, but that work is only completed as far as Guttiferæ. Beyond that point I have extracted what was wanted from "Die Pflanzenfamilien" itself. Engler's "Syllabus der Pflanzenfamilien" (Second Edition, 1898) is most useful, but does not descend lower in the scale than Sub-tribes, except to make mention of the more important genera and species.

For the benefit of those to whom Engler's colossal work is not easily accessible, an arrangement of the genera of British plants in accordance with his system is appended. It is based on the Ninth Edition of the London Catalogue, and is simplified by the omission in many cases of intermediate grades, such as Sub-series and Sub-The standard of the various Divisions can almost always tribes. be fixed by paying attention to the terminations. Sub-genera and Sections of Genera are omitted, as they would be practically useless without a list of the species which they include, and a complete list of species would be out of place in a small local Flora. In a few instances there is a discrepancy between the Syllabus and the larger work, e.g., Calamintha and Rhinanthus, which appear as genera in the Syllabus, are merged in Satureia and Fistularia respectively in Die Pflanzenfamilien. In such cases I have adopted in the Flora the name most familiar to British botanists.

LIST OF THE GENERA OF BRITISH PLANTS.

#### LIST OF THE GENERA OF BRITISH PLANTS, BASED ON THE NINTH EDITION OF THE LONDON CATALOGUE, ARRANGED IN ACCORDANCE WITH ENGLER'S SYSTEM.

#### **Division EUTHALLOPHYTA.**

#### CLASS CHARALES.

Fam. CHARACEÆ (the only Family).

- 3. Chara L.....Charea.
- 4. Lychnothamnus Leonh.
- 5. Lamprothamnus Braun.

#### **Division EMBRYOPHYTA ZOIDIOGAMA.**

(ARCHEGONIATÆ.)

#### Subdivision PTERIDOPHYTA.

CLASS I.—FILICALES.

#### Series 1. Filicales leptosporangiatæ.

- Fam. 1, HYMENOPHYLLACEÆ.
  - 1. Hymenophyllum Sm.
  - 2. Trichomanes L.

#### Fani, 2. Polypodiaceæ.

- 1. Gymnogramme Desv. .....Gymnogrammeæ.
- 2. Polypodium L. .....Polypodieæ.

- 6. Blechnum L.

- 9. Athyrium Roth.

Fam. 2. POLYPODIACEA. 10. Aspidium Sw. Phegopteris Presl. ......
 Cystopteris Bernh. ...... .....Aspidica. 13. Woodsia Br..... Fam. 3. OSMUNDACEÆ. 1. Osmunda L. Fam. 4. MARSILIACEE. 1. Pilulifera L. Series 2. Ophioglossales. Fam. Ophioglossace *æ* (the only Family). 1. Ophioglossum L. 2. Botrychium Sw. CLASS 2.—EQUISETALES. Series Equisetales. Fam. EQUISETACEÆ (the only Family). 1. Equisetum L. (the only recent Genus). CLASS 3.—LYCOPODIALES. Series 1. Lycopodiales Eligulatæ. Fam, LYCOPODIACEÆ (the only Family). 1. Lycopodium L. Series 2. Lycopodiales Ligulatæ. Fam. 1. SELAGINELLACEÆ. 1. Selaginella Beauv. (the only Genus). Fam. 2. ISOÉTACEÆ. 1. Isoëtes L. (the only Genus). Division EMBRYOPHYTA SIPHONOGAMA. (PHANEROGAMS.) Subdivision 1. GYMNOSPERMÆ. CLASS 1.—CONIFERÆ. Fam. 1. TAXACEÆ. Fam. 2. PINACEÆ. 1. Pinus L. .....Abietinea. 

Subdivision 2. ANGIOSPERMÆ.
CLASS 1. MONOCOTYLEDONEÆ.
Series 1. Pandanales.
Fam. 1. TYPHACEÆ.
1. Typha L. (the only Genus).
Fam 2. Sparganiaceæ.
1. Sparganium L. (the only Genus).
Series 2. Helobiæ (Fluviales).
Fam. 1. POTAMOGETONACEÆ.
1. Zostera LZostereæ.
<ol> <li>Potamogeton L</li></ol>
4. Zannichellia LZannichellieæ.
Fam. 2. NAIADACEÆ.
1. Naias L. (the only Genus).
Fam. 3. JUNCAGINACEÆ.
1. Triglochin L. 2. Scheuchzeria L.
Fam, 4. ALISMACEÆ.
1. Alisma L
3. Damasonium Mill.
4. Sagittaria LSagittarieæ.
Fam. 5. BUTOMACEÆ.
1. Butomus L.
Fam. 6. Hydrocharitace.
1. Elodea Mich.c
2. Stratiotes LStratioteæ.
3. Hydrocharis LHydrochariteæ.
Series 3. Glumifloræ.
Fam. 1. GRAMINE.E.
I. Paniceæ.
1. Panicum L.
2. Setaria Beauv.
II. Oryzeæ.
3. Leersia Swartz.
III. Phalarideæ.
4. Phalaris L.
5. Anthoxanthum L.
6. Hierochloe R. Br.

- IV. Agrostideæ.
  - 7. Milium L.
  - 8. Phleum L.
  - 9. Alopecurus L.
  - 10. Mibora Adans.
  - 11. Polypogon Desf.
  - 12. Agrostis L.
  - 13. Gastridium Beauv.
  - 14. Calamagrostis Adans. (including Deyeuxia).
  - 15. Ammophila Host.
  - 16. Apera Adans.
  - 17. Lagurus L.
- V. Aveneæ.
  - 18. Holcus L.
  - 19. Aira L.
  - 20. Corynephorus Beauv.
  - 21. Deschampsia Beauv.
  - 22. Trisetum Pers.
  - 23. Avena L.
  - 24. Arrhenatherum Beauv.
- VI. Chlorideæ.
  - 25. Cynodon L. C. Rich.
  - 26. Spartina Schreb.
- VII. Festuceæ.
  - 27. Sesleria Scop.
  - 28. Phragmites Trin.
  - 29. Triodia R. Br.
  - 30. Molinia Schrank.
  - 31. Kœleria Pers.
  - 32. Catabrosa Beauv.
  - 33. Melica L.
  - 34. Briza L.
  - 35. Dactylis L.
  - 36. Cynosurus L.
  - 37. Poa L.
  - 38. Glyceria R. Br.
  - 39. Atropis Rupr.
  - 40. Festuca L. (with Vulpia as a Sub-genus).
  - 41. Catapodium Link.
  - 42. Scleropoa Griseb.

VII. Festuceæ. 43. Bromus L. 44. Brachypodium Beauv. VIII. Hordeeæ. 45. Nardus L. 46. Lolium L. 47. Lepturus R. Br. 48. Agropyrum ("Agropyron") Gærtn. 49. Hordeum L. 50. Elvmus L. Fam. 2. CYPERACE F. I. Scirpere. 1. Cyperus L. ......Cuperinæ. Eriophorum L.
 Scirpus L.
 Heleocharis R. Br. II. Rhynchosporeæ. 5. Scheenus L. 6. Cladium Schrad. 7. Rhynchospora Vahl. III. Cariceæ. 8. Kobresia Willd. 9. Carex L. Series 4. Spathifloræ. Fam. 1. ARACEÆ. 1. Acorus I. Acoreæ. Fam. 2, LEMNACEÆ. 1. Lemna L. .....Lemnoideæ. 2. Wolffia Horkel. ...... Wolffioideæ. Series 5. Farinosæ. Fam. 1. Eriocaulaceæ. 1. Eriocaulon L. Series 6. Liliifloræ. Fam. 1. JUNCACEÆ. 1. Juneus L. 2. Luzula DC. Fam. 2. LILLACEÆ. I. Tofieldieæ. 1 Tofieldia Huds 2. Narthecium Juss.

II. Colchiceæ. 3. Colchicum L. III. Asphodeleæ. 4. Simethis Kunth. IV. Allieæ. 5. Gagea Salisb. 6. Allium L. V. Tulipeæ. 7. Lilium L. 8. Fritillaria L. 9. Tulipa L. 10. Lloydia Salisb. VI. Scilleæ. 11. Scilla L. 12. Ornithogalum L. 13. Muscari Mill. VII. Asparageæ. 14. Asparagus L. 15. Ruseus L. VIII. Polygonateæ. 16. Maianthemum Web. 17. Polygonatum Adans. IX. Convallarieæ. 18. Convallaria L. X. Paridere. 18. Paris L. Fam. 3. AMARYLLIDACE.E. I. Amaryllideae. 1. Galanthus L. 2. Leucojum L. II. Narcissea. 3. Narcissus L. Fam. 4. DIOSCOREACE ... 1. Tamus L. Fam. 5. IRIDACEÆ. I. Crocoideæ. 1. Crocus L. 2. Romulea Maratti. II. Morgen. 3. Iris L.

8

III. Sisyrinchieæ. 4. Sisyrinchium L. IV. Gladioleæ. 5. Gladiolus L. Series 7. Microspermæ. Fam. 1. ORCHIDACEÆ. I. Cypripedileæ. 1. Cypripedilum ("Cypripedium") L. II. Ophrydeæ. 2. Ophrys L. ..... 5. Anacamptis L. C. Rich. III. Neottiinæ. Gmel. 17. Goodyera R. Br.....Physurinæ. IV. Liparideæ. 18. Sturmia Reichb. (Liparis Rich.) 19. Coralliorrhiza ("Corallorhiza") R. Br. 20. Malaxis Soland. CLASS II.-DICOTYLEDONEÆ. SUB-CLASS I.-ARCHICHLAMYDEÆ (Choripetalæ and Apetalæ). Series 1. Salicales. Fam. 1. SALICACEÆ (the only Family). 1. Populus L. 2. Salix L. Series 2. Myricales. Fam. 1. MYRICACEÆ (the only Family). 1. Myrica L.

Series 3. Fagales. Fam. 1. BETULACEÆ. I. Coryleæ. 1. Carpinus L. 2. Corylus L. II. Betuleæ. 3. Betula L. 4. Alnus L. Fam. 2. FAGACEÆ. I. Fageæ. 1. Fagus L. II. Castaneæ. 2. Castanea Adans. 3. Quercus L. Series 4. Urticales. Fam, 1. ULMACEÆ. 1. Ulmus L. Fam. 2. MORACEÆ. 1. Humulus L.....Cannaboideæ. Fam. 3. URTICACEÆ. I Urereæ. 1. Urtica L. II. Parietarieæ. 2. Parietaria L. Series 5. Santalales. Fam. 1. LORANTHACEE. 1. Viscum L. ......Viscea. Fam. 2. SANTALACEÆ. Series 6. Aristolochiales. Fam. 1. ARISTOLOCHIACE.E. I. Asareæ. 1. Asarum L. II. Aristolochieæ. 2. Aristolochia L Series 7. Polygonales. Fam, 1. Polygonacez. I. Rumiceæ. 1. Rumex L. 2. Oxyria Hill.

II. Polygoneæ. 3. Polygonum L. 4. Fagopyrum Manch. Series 8. Centrospermæ. Fam. 1. CHENOPODIACEÆ. I. Beteæ. 1. Beta L. II. Chenopodieæ. 2. Chenopodium L. III. Atriplicea. 3. Atriplex L. IV. Salicornieæ. 4. Salicornia L. V. Suædeæ. 5. Suæda Forsk. VI. Salsoleæ. 6. Salsola L. Fam. 2. AMARANTACEE. 1. Amarantus L. Fam. 3. PORTULACACE.E. I. Calandrinieæ. 1. Claytonia L. 2. Montia L. II. Portulaceæ. 3. Portulaca L. Fam. 4. CARYOPHYLLACE.E. L. Alsineæ. 1. Stellaria L. 2. Cerastium L. 3. Holosteum, L. 4. Mœnchia Ehrh. 5. Sagina L. 6. Alsine Scop. 7. Arenaria L. 8. Mæhringia L. II. Sperguleæ. 9. Spergula L. 10. Spergularia Presl. III. Polycarpeæ. 11. Polycarpon Loefl.

IV. Paronychieæ. 12. Corrigiola L. 13. Herniaria L. 14. Illecebrum L. V. Sclerantheæ. 15. Scleranthus L. VI. Lychnidere. 16. Agrostemma L. 17. Viscaria Roehling. 18. Silene L. 19. Lychnis L. 20. Melandryum Roehl. 21. Cucubalus L. VII. Diantheæ. 22. Dianthus L. 23. Saponaria L. Series 9. Ranales. Fam. 1. Nумрнжасеж. I. Tetrasepaleæ. 1. Nymphæa L. II. Nuphareæ. 2. Nuphar Sm. Fam. 2. CERATOPHYLLACEÆ. 1. Ceratophyllum L. Fam. 3. RANUNCULACE.E. I. Pæonieæ. 1. Pæonia L. II. Helleboreæ. 2. Caltha L. 3. Trollius L. 4. Helleborus L. 5. Eranthis Salish. 6. Actæa L. 7. Aquilegia L. 8. Delphinium L. 9. Aconitum L. III. Anemoneæ. 10. Anemone L. 11. Clematis L.

12. Myosurus L.

12

$GE_{1}$	NERA OF BRITISH PLANTS.	18
III. Anem	oneæ.	
13,	Ranunculus L.	
	Thalictrum L.	
	Adonis L.	
Fam. 4. BER	BERIDACEAE.	
	Berberis L.	
2,	Epimedium L.	
Series 10. Rhæa		
Fam. 1. PAP		
I. Chelidor		
1.	Chelidonium L.	
II. Papave	ereæ.	
	Glaucium Adans.	
	Raemeria Medik.	
4.	Meconopsis Vignier.	
	Papaver L.	
	rioideæ (Sub-family).	
	Corydalis Vent.	
7.	Fumaria L.	
Fam. 2. Cru	CIFERÆ.	
I. Sinapeæ		
	Subularia L	
2.	Teesdalia R. Br.	
3.	Lepidium L	.Lepidiinæ.
	Coronopus Gærtn)	
	Iberis L.	
6.	Thlaspi L	hleariinnæ.
7.	Cochlearia L)	
8.	Alliaria DC	.Alliariina.
9.	Sisymbrium L.	
10.	Cakile Adans	isymbriinæ.
11.	Isatis L)	
12.	Sinapis L	
13.	Diplotaxis DC	
14.	Erucastrum C. Presl	Brassicinæ.
15.	Brassica L.	DI MOSICUILLO.
16.	Rhaphanus L	
17.	Crambe L	
18.	Barbaræa R. Br)	rdamininæ.
19.	Nasturtium R. Br S	, ((() <i>II()ID()DDC</i> )

I. Sinapeæ. 20. Cardamine L. ...... ....Cardamininæ. 21. Dentaria L. ..... II. Hesperideæ. 22. Hutchinsia R. Br. 23. Capsella Medik. ..... .....Capsellinæ. 24. Camelina Crantz. ..... 25. Draba L. 27. Arabis L. 28. Erysimum L..... .....Erysimina. 29. Cheiranthus L. 30. Alyssum L. 32. Berteroa DC.....) 35. Bunias L. ..... J Fam. 3. Resedaces. 1. Reseda L. Series 11. Sarraceniales. Fam. 1. DROSERACEÆ. 1. Drosera L. Series 12. Rosales. Fam. 1. CRASSULACEÆ. 1. Sedum L. 2. Semperirvum L. 3. Cotyledon L. 4. Crassula L., Sect. Tillæa. Fam. 2. SAXIFRAGACEÆ. I. Saxifrageæ. 1. Saxifraga L. 2. Chrysosplenium L. II. Parnassieæ. 3. Parnassia L. III. Ribesioidea (Sub-family). 4. Ribes L. Fam. 3. ROSACEÆ. I. Spiræeæ. 1. Spiræa L.

II. Pomarieæ. 2. Cotoneaster Medik. 3. Pirus ("Pyrus") L. 4. Mespilus L. (including Cratægus L.) III. Potentilleæ. 5. Rubus L. .....Rubinæ. IV. Sanguisorbeæ. 11. Alchemilla L. 12. Agrimonia L. 13. Sanguisorba L. V. Roseæ. 14. Rosa L. VI. Prunoideæ (Sub-family). 15. Prunus L. Fam. 4. LEGUMINOSÆ (Sub-family PAPILIONATÆ). I. Genisteæ. 1. Genista L.....Spartiinæ. II. Trifolieæ. 4. Ononis L. 5. Trigonella L. 6. Medicago L. 7. Melilotus Adans. 8. Trifolium L. III. Loteæ. 9. Anthyllis L. 10. Lotus L. IV. Galegeæ (Sub-tribe Astragalinæ). 11. Astragalus L. 12. Oxytropis DC. V. Hedysareæ. 13. Ornithopus L. 14. Hippocrepis L. 15. Onobrychis Adans.

VI. Vicieæ. 16. Vicia L. 17. Lathyrus L. Series 13. Geraniales. Fam. 1. GERANIACEÆ..... 1. Geranium L. 2. Erodium L'Hérit. ... Fam. 2. OXALIDACEÆ. ..... 1. Oxalis L..... Fam. 3. LINACEÆ. 1. Radiola Roth. ..... 2. Linum L. ..... Fam. 5. Euphorbiaceæ ..... 1. Mercurialis L. Sub-series 2. Euphorbia L. ..... F Tricoccæ. Fam. 6. CALLITRICHACEÆ ("Incertæ sedis"). 1. Callitriche L. Series 14. Sapindales. Fam. 3. AQUIFOLIACEÆ ..... 1. Euonymus L. ..... 1. Impatiens L. ... Series 15. Rhamnales. Fam. 1. RHAMNACEÆ. 1. Rhamnus L. Series 16. Malvales. Fam. 1. TILIACEE. 1. Tilia L.

Fam. 2. MALVACEE. (Tribe Malveæ.) 1. Lavatera L. 2. Althæa L. 3. Malva L. Series 17. Parietales. Fam. 1. GUTTIFERÆ. (Sub-fam. HYPERICOIDEÆ.) 1. Hypericum L. Fam. 2. ELATINACEÆ. 1. Elatine L. ..... Fam. 4. TAMARICACEÆ. 1. Tamarie L. ..... 1. Helianthemum L. 1. Viola L. ..... Series 18. Myrtifloræ. Fam. 1. THYMELÆACEÆ. 1. Hippophaë L. ... Fam. 3. LYTHRACEÆ. 1. Peplis L. ..... 2. Lythrum L. 1. Ludwigia L. 2. Epilobium L. ... 3. Œnothera Spach. 4. Circæa L. ...... Fam. 5. HALORRHAGIDACEÆ. 1. Myriophyllum L. ......Halorrhagideæ. Series 19. Umbellifloræ. Fam. 1. ARALIACEÆ. 1. Hedera L. Fam. 2. UMBELLIFERÆ. I. Hydrocotyloideæ. 1. Hydrocotyle L.

II. Saniculoideæ.
2. Sanicula L.
3. Astrantia L.
4. Eryngium L.
III. Apioideæ.
5. Chærophyllum L
6. Anthriscus Hoffm
7 Scandix I
8. Myrrhis Scop
9. Torilis Adans.
10. Caucalis L,
11. Coriandrum LCoriandreæ
12. Smyrnium L)
13. Physospermum Cuss
14. Conium L)
15. Bupleurum Tournf)
16. Trinia Hoffm.
17. Apium L
18. Sison L
19. Cieuta L
20. Petroselinum Hoffm
21. Ammi L
22. Falcaria Host
23. Carum L
24. Bunium L
25. Conopodium Koch
26. Pimpinella L Amminea.
27. Œgopodium L
28. Sium L
29. Crithmum Tournf
30. Seseli L
31. Œnanthe L
32. Æthusa L
33. Fœniculum L
34. Silaus Bess
35. Meum Jacq
36. Selinum L.
37. Ligusticum L)
38. Angelica L
39. Peucedanum L

III. Apioideæ. 43. Siler Scop. .....Laserpitieæ. Fam. 3. CORNACE F. 1. Cornus L. SUB-CLASS II .- SYMPETALÆ OR METACHLAMYDEÆ. Series 1. Ericales. Fam. 1. PIROLACE. I. Piroloideæ. 1. Pirola L. (Moneses a Sub-genus). Monotropoideæ. 2. Monotropa L. (Sub-genus Hypopitys). Fam. 2. ERICACEE. I. Rhododendroideæ. II. Arbutoideæ. 4. Andromeda L.....Indromedea. 5. Arbutus L......6. Arctostaphylos Adans.*Arbuteæ*. III. Vaccinioideæ. 7. Vaccinium L. (Oxycoccus as a Sub-genus). IV. Ericoideæ. 8. Calluna, Salisb. 9. Erica L. Series 2. Primulales. Fam. 1. PRIMULACE.E. I. Primuleæ. 1. Primula L. 2. Hottonia L. II. Samoleæ. 3. Samolus L. III. Lysimachieæ. 6. Glaux L. .....

III. Lysimachieæ.
7. Angallis L
7. Angallis L
IV. Cyclamineæ.
9. Cyclamen L.
Fam. 2. Plumbaginaceæ.
1. Armeria Willd.
2. Statice L.
Series 3. Contortæ.
Fam. 1. OLEACEÆ.
1. Fraxinus LFraxineæ.
2. Ligustrum L $Olee\alpha$ .
Fam. 2. Gentianaceæ.
I. Gentianoideæ.
1. Microcala Lk. and Hoff,
2. Cicendia Adans.
3. Erythræa L. C. Rich.
4. Chlora L.
5. Gentiana Tournf.
II. Menyanthoideæ.
6. Menyanthes L.
7. Limnanthemum S. G. Gmel.
Fam. 3. Apocynace <i>e</i> .
1. Vinca L.
Series 4. Tubifloræ.
Fam. 1. Convolvulacez.
1. Convolvulus L
<ol> <li>Convolvulus L</li></ol>
3. Cuscuta LCuscutoidee.
Fam. 2. Polemoniace.e.
1. Polemonium L.
Fam. 3. Borraginaceæ (Sub-family Borraginoideæ).
1. Cynoglossum LCynoglosseæ
2. Asperugo LEritrichieæ.
3. Symphytum L)
4. Borrago L.
5. Anchusa L
6. Lycopsis L
7. Pulmonaria L)

Fam. 3. Born	raginaceæ (Sub-family Borraginoideæ).	
8.	Myosotis L	
9.	Mertensia Roth	
10.	Lithospermum L)	
11.	Echium LEchieæ.	
Fam. 4. VER	BENACEÆ.	
1.	Verbena L.	
Fam. 5. LAB	IATÆ.	
I. Ajugoide	eæ.	
1.	Ajuga L.	
2.	Teucrium L.	
II. Scutell	arioideæ.	
3.	Scutellaria L.	
III. Stachyoideæ.		
	Marrubium LMarrubieæ.	
5.	Nepeta L	
6.	Glecoma (" Glechoma ") L. §	
7.	Brunella L	
	Melittis L	
	Galeopsis L.	
	Lamium L Stachydeæ.	
	Leonurus L	
	Ballota L	
	Stachys L	
	Salvia LSalvieæ.	
	Melissa LMelissinæ	
* 16.	Satureia L. (incl. Calamintha,	
	Clinopodium, and Acinos as	
	Sections) - Saturejeæ.	
17.	Origanum L } Thyminc. Lycopus L } Menthinæ.	
18.	Thymus L	
19.	Lycopus L } Menthing.	
Fam. 6. Sol		
I. Solaneæ	-	
1.	Lycium L	
2.	Atropa L	
	Hyoscyamus LHyoscyaminæ.	
	Solanum LSolaninæ.	
* In Engler's Syllabus Calamintha is maintained as a Genus and is in a different Sub-tribe to Satureia.		

II. Datureæ.
5. Datura L.
Fam. 7. Scrophulariace <i>e</i> .
I. Pseudosolaneæ.
1. Verbascum L
II. Antirrhinoideæ.
2. Cumbalaria Bauma,)
<ol> <li>Cymbalaria Baumg</li> <li>Linaria Juss</li></ol>
4. Antirrhinum L
5. Scrophularia LCheloneæ.
6. <i>Mimulus L.</i>
III. Rhinanthoideæ.
8. Sibthorpia L
9. Veronica L
10. Digitalis L.
11. Melampyrum L.
12. Euphrasia L
13. Parentucellia Viv.
(Eufragia Griseb.)
14. Odontites Pers
15. Bartschia L
16. Fistularia L. (Rhinan-
thus L. p. p.)
17. Pedicularis L
Fam. 8. LENTIBULARIACEÆ.
1. Pinguicula Tourn.
2. Utricularia L.
Fam. 9. Orobanchaceæ.
1. Orobanche G. Beck.
2. Lathræa L.
* Fam. 10. Plantaginaceæ.
1. Plantago L.
2. Litorella L.
Series 5. Rubiales.
Fam. 1. RUBIACEZE. (Tribe GALIE.E.)
1. Sherardia Dill.
2. Asperula L.
* In the Syllabus, Plantaginaceæ form a Series to themselves, Plantaginales.

22

Fam. 1. RUBIACEE. (Tribe GALIEE.)
3. Galium Tournf.
4. Rubia L.
Fam. 2. CAPRIFOLIACEÆ.
1. Sambucus LSambuceæ.
2. Viburnum LViburneæ.
3. Linnæa GronovLinnææ.
4. Lonicera LLonicereæ.
Fam. 3. AdoxACEÆ.
1. Adoxa L.
Fam. 4. Valerianace Æ.
1. Valerianella Haller.
2. Valeriana L.
3. Centranthus DC.
Fam. 5. DIPSACEÆ.
1. Dipsacus L.
2. Succisa Coult.
3. Knautia Coult.
4. Scabiosa L.
Series 6. Campanulatæ.
Fam. 1. CUCURBITACEÆ. (Tribe CUCURBITEÆ).
1. Bryonia L.
Fam. 2. CAMPANULACEE.
I. Campanuloideæ.
1. Campanula L
2. Specularia Heist $\dots$ $\{\dots, Campanulina.$
3. Phyteuma L
4. Wahlenbergia Schrad Wahlenberging.
<ul><li>4. Wahlenbergia Schrad } Wahlenbergiinæ.</li><li>5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad } Wahlenbergiinæ.</li> <li>5. Jasione L</li></ul>
<ul><li>4. Wahlenbergia Schrad } Wahlenbergiinæ.</li><li>5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad 5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad 5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad } Wahlenbergiinæ.</li> <li>5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad 5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad 5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad } Wahlenbergiinæ.</li> <li>5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad } Wahlenbergiinæ.</li> <li>5. Jasione L</li></ul>
<ul> <li>4. Wahlenbergia Schrad } Wahlenbergiinæ.</li> <li>5. Jasione L</li></ul>

III. Inulea.
6. Filago LFilagininæ.
7. Antennaria Gærtn)
8. Anaphalis DC
9. Gnaphalium L
10 Inulo I.
11. Pulicaria Gærtn
IV. Heliantheæ.
12. Xanthium LAmbrosiinæ.
13. Bidens LCoreopsidinæ.
14. Galinsoga Ruiz & PavGalinsoginæ.
V. Anthemideæ.
15. Anthemis L.
16. Achillea L
17. Diotis Desf
18. Matricaria L
19. Chrysanthemum L
$(Tanacetum L. Section.) \succ Chrysantheminæ.$
20. Cotula L
21. Artemisia L
VI. Senecioneæ.
22. Tussilago L
23. Petasites Gærtn
24. Doronicum L
25. Senecio L
VII. Cynareæ.
26. Carlina LCarlinina.
27. Arctium L
28. Saussurea DC
29. Carduus L
* 30. Cirsium Scop
31. Silybum Gærtn
32. Onopordon L
33. Serratula L
34. Centaurea L
B. LIGULIFLORÆ.
VIII. Chichorieæ.
35. Chichorium L
36. Lapsana L
37. Arnoseris Gærtn)

\* In the Syllabus Cuicus is maintained and includes Cirsium.

VIII. Chichorieæ.

38. Hypochæris L	
39. Leontodon L.         (           40. Picris L.         (	Leontodontinæ.
41. Tragopogon L	
42. Taraxacum Hall.	
43. Sonchus L	
45. Crepis L.	* Crepidinæ.
46. Prenanthes L	
47. Hieracium L	

\* In the Syllabus the Sub-tribes are different in the Tribe Chichorieæ.

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FLORA OF JERSEY.

# FLORA OF JERSEY

# Division 1. EUTHALLOPHYTA.

#### Characeæ.

1. NITELLA Agardh.

1. N. FLEXILIS Ag.

Native. Slow streams. Rare.

Stream below the Upper Mill in St. Peter's Valley. 1900. Normandy. W. France.

Messrs. H. and J. Groves have very kindly examined and named specimens of the Jersey species of CHARACE.E. All previous records require confirmation.

2. Chara L.

1. C. FRAGILIS Desv.

Native. Edges of ponds. Rare. St. Ouen's Pond. 1902. Guernsey. France.

2. C. ASPERA Willd.

Native. Stagnant ponds. Rare. St. Ouen's Pond. 1900. Guernsey. France.

 C. VULGARIS L. (C. FETIDA A. Braun). Native. Stagnant pools. Very local. St. Ouen's Pond. Pool in Samarès Marsh. Guernsey. France.

# Division 2. EMBRYOPHYTA ZOIDIOGAMA.

(Archegoniatæ.)

#### Polypodiaceæ.

1. GYMNOGRAMME Desv.

1. G. LEPTOPHYLLA Desv. (GRAMMITIS Sw.)

Native. Warm, sheltered crevices in rocky or sandy banks. Very local. February to May.

St. Saviour's. J. Piquet sp. 1864! St. Laurence. La Haule. Science Gossip, 1884. Near St. Ouen's Manor and near St. Catharine's Harbour. G. T. Derrick in Proceedings of the Guernsey Nat. Hist. Soc., 1889. Apparently extinct in several of these localities.

A beautiful and delicate little annual of the Mediterranean Region, straggling up the Atlantic coasts as far as Brittany, Jersey, and Guernsey. There are several successive crops of seedlings in each spring. In Jersey it appears as early as February, but Lloyd gives May and June. Much less common than formerly according to Mr. J. Piquet.

2. Polypodium L.

1. P. VULGARE L.

Native. Rocks, walls, hedges, and tree-trunks. Very common. Guernsey. Alderney. Sark. France.

3. Pteris L.

1. P. AQUILINA L.

Native. Cliffs and rough hillsides. Common. Guernsey. Alderney. Sark. France.

# 4. Adiantum L.

1. A. Capillus-Veneris L.

Native. Moist rocks in sea-caves. Very rare. Plémont. J. Piquet, sp. 1872! Still there.

S. and W. Europe as far north as the Isle of Man, but very local north of La Gironde. Absent from Normandy: very rare in Brittany.

# 5. Blechnum L.

1. B. SPICANT Roth. (LOMARIA SPICANT Desv.)

Native. Damp, shady banks. Rather common.

Beaumont. Waterworks Valley. Bellozanne Valley. Valley des Vaux. Bonne Nuit Bay. Bouley Bay. La Saline, St. John's.

Guernsey. Alderney (rare). France.

6. Asplenium L.

1. A. LANCEOLATUM Huds.

Native. Walls, rocks, and banks. Rather common.

Noirmont. Portelet. La Moie. St. Peter's. St. Laurence. Cliffs at Bonne Nuit. Rozel. Samarès Lane, &c.

Guernsey (common). Alderney. Sark. Normandy (rather rare). W. France.

2. A. Adiantum-nigrum L.

Native. Banks and walls. Common.

Guernsey. Alderney. Sark. France.

Var. ACUTUM Poll. "Rozel, rare." J. Piquet.

### 3. A. MARINUM L.

Native. Rocks within reach of the spray. All round the coast, but never in great abundance.

St. Brelade's. Plémont. Vinchelez. La Saline, St. John's. Sorel Point. Bouley Bay.

Guernsey. Alderney (rare). Sark (very abundant and fine). Normandy (rather rare). W. France (local). W. Europe as far north as Shetland.

4. A. TRICHOMANES L.

Native. Walls and banks. Not common.

Beaumont. St. Peter's Valley. St. Martin's. Bonne Nuit Bay. Trinity Church. Near Dielament Manor.

Guernsey (rare). Alderney (very rare). France.

5. A. RUTA-MURARIA L.

Native. Walls and old buildings. Common.

Guernsey. Alderney (very rare). Sark. France.

6. A. CETERACH L. (C. OFFICINARUM Willd.)

Native. Old walls. Local and rare.

Walls in St. Helier's. La Haule Lane. Waterworks Valley. Samarès.

Rare in Guernsey and Alderney. France.

7. Scolopendrium Sm.

1. S. VULGARE Symons.

Native. Shady hedge-banks, among rocks, &c. Not very common.

Valley behind St. Aubin's. Bouley Bay. St. Martin's. Near Samarès. Thinly distributed in the lanes of the interior. Guernsey (abundant). Alderney (rare). Sark. France.

#### 8. ATHYRIUM Roth.

1. A. FILIX-FEMINA Roth.

Native. Damp, shady places in the valleys. Frequent. Guernsey. Alderney (rare). Sark. France.

## 9. Aspidium Sw.

 A. FILIX-MAS Sw. (LASTRÆA Presl. POLYSTICHUM Roth.) Native. Hedges. Not common. Near Grouville. Bab. St. Peter's, St. Catharine's Bay.

St. John's.

Guernsey. Alderney (rare). Sark. France.

- 2. A. DILATATUM Sw. (LASTRÆA Presl. POLYSTICHUM Roth.) Native. Damp, shady places in the valleys. Frequent. Guernsey (not common). Alderney (very rare). Sark. France.
- 3. A. ANGULARE Willd.

Native. Hedges. Rare.

Valley des Vaux. There are specimens from this locality in Mr. Piquet's herbarium and at the Maison St. Louis. Near Grouville. Bab.

Guernsey (rare). Sark. France.

#### Osmundaceæ.

Osmunda L.

- 1. O. REGALIS L.
  - Native. Boggy places on the cliffs in the north. Rare, and on the way to extinction.

Cliffs on the north coast. J. Piquet, sp. 1873!

Guernsey (? extinct). Sark. C. P. Hurst. Normandy (rather rare). W. France.

#### Marsiliaceæ.

PILULARIA L.

1. P. GLOBULIFERA L.

Native. Damp places. Extinct? Ditches in St. Peter's Marsh. J. Piquet, sp. ! Normandy (rare). W. France.

#### Ophioglossaceæ.

Ophioglossum L.

1. O. VULGATUM L.

Native. Damp meadows. Very local.

Plentiful in Samarès Marsh, where it was shown to me in 1897 by a lady then living in Jersey.

Guernsey (local). Sark. Mr. C. P. Hurst. (Var. AMBIGUA.) Normandy (not common). W. France.

#### Equisetaceæ.

1. Equisetum L.

1. E. ARVENSE L.

Native. Fields, roadsides, and waste places. Frequent. Guernsey. Alderney. Sark. France.

Var. SEROTINUM Meyer, Chloris Hanover, p. 666 (1836) = E. CAMPESTRE Schultz, Prod. Fl. Starg. Supp. p. 55. E. ARVENSE L.  $\delta$ . CAMPESTRE Lebedour, Fl. Ross. iv. p. 486 (1853). Plentiful at the foot of a wall near Longueville in 1900. In this form branched stems of the normal barren type are terminated by 3 or 4 sets of empty sheaths and an ordinary spike. It has been found in Normandy and other parts of France. The reference and synonomy I owe to Mr. A. Bennett.

### 2. E. PALUSTRE L.

Native. Ponds and wet meadows. Local.

Pont Marquet. St. Peter's Valley. Town Mill Pond. Near Trinity Manor.

Guernsey. Alderney. Sark. France.

Var. POLYSTACHYON Vill. Valley near Don Bridge.

3. E. LIMOSUM Sm.

Native. Ponds and ditches. The commonest species.

St. Ouen's Pond. Waterworks Valley. St. Saviour's Valley. Valley des Vaux. Samarès Canal. Guernsey (frequent). France.

# **Division 3. EMBRYOPHYTA SIPHONOGAMA.**

(Phanerogams.)

### Pinaceæ.

Pinus L.

1. P. silvestris L. (Scotch Fir). Planted. Not native in Normandy, Brittany, or W. France.

#### Typhaceæ.

TYPHA L.

1. T. LATIFOLIA L.

Native. Ponds and ditches. Rare. June, July.

Old fish-pond at Dielament Manor, Trinity. *Mr. Piquet* tells me that it formerly grew in St. Peter's Marsh, and *Mr. S. Guiton* that it used to be abundant at Les Marais. Frequent in France. Extinct in Guernsey.

#### Sparganiaceæ.

Sparganium L.

1. S. RAMOSUM Huds.

Native. Damp places. Not very common. June, July. St. Ouen's Pond. *Bab.* Town Mill Pond. Waterworks Valley. Bellozanne Valley. Grand Val. Guernsey (rare). Alderney (?). France.

#### Potamogetonaceæ.

1. ZOSTERA L.

1. Z. MARINA L.

Native. Sandy bays above and below low-water mark, Locally abundant. June to August.

Guernsey. Alderney. Sark. France.

2. Z. NANA Roth.

Native. With the last, but much less common.

St. Aubin's Bay. Grève d'Azette.

Normandy (rare). W. France (local). W. coasts of Europe, N. Africa.

2. Potamogeton L.

1. P. NATANS L.

Native. Stagnant water. Very rare. July to September.

Marsh near the Grève d'Azette. Bab. Still in a stagnant pond close to Bashford's Vineries and the adjoining ditches.

Common in France.

2. P. POLYGONIFOLIUS POURT. (P. OBLONGUS Viv.)

Native. Swampy places. Local. June to September.

St. Brelade's Bay. La Moie. St. Ouen's Pond. Le Marais, St. Ouen's.

Guernsey. Rather local in France.

Var. PSEUDO-FLUITANS Syme (fide Arthur Bennett), a deepwater form with very long petioled floating leaves, occurs in a quarry pool at La Moie.

3. P. PLANTAGINEUS DUCTOZ. (P. HORNEMANNI Meyer. P. COLORA-TUS Hornem.)

Native. Shallow water. Very local. July to September. Abundant round the edge of St. Ouen's Pond.

Guernsey (rare). Normandy (rare). W. France (local).

# 4. P. CRISPUS L.

Native. Ponds and streams. Local. June to September. Ditches near George Town. Pool at Noirmont Point. St. Peter's Valley. Grouville Marsh.

Guernsey. France.

5. P. pectinatus L.

Native. Ponds. Very local. June to August. St. Ouen's Pond. *Bab.* and *J. Piquet* (*sp.*!). Guernsey. Frequent near the sea in France.

3. ZANNICHELLIA L.

1. Z. palustris L.

Native. Ditches near the sea. Rare.

Samarès Miles, St. Clement's. J. Piquet, sp. 1900! Guernsey. France.

## Juncaginaceæ.

TRIGLOCHIN L.

1. T. PALUSTRE L.

Native. Marshy places. Local. June to September.

La Pulente. St. Ouen's Pond. La Moie Common. St. Clement's. J. Piquet (sp. 1870!)

Guernsey (rare). Alderney. Rather local in France.

2. T. MARITIMUM L.

Native. Swamps near the sea. Very rare, and apparently extinct. June to August.

Samarès Miles. F. Piquet, sp. 1869!

Guernsey (rare). Common on the French coast.

#### Alismaceæ.

1. Alisma L.

1. A. Plantago L.

Native. Ponds and ditches. Local. June to September.

Valley des Vaux. Waterworks Valley. Queen's Valley. Grouville. St. Catharine's Breakwater.

Guernsey. France.

2. A. RANUNCULOIDES L.

Native. Swampy places. Rare. June to September.

La Moie Common. Pond near Noirmont. St. Ouen's Pond.

Guernsey (rare). France.

Var. REPENS Davies, is recorded by *Bab*. from St. Peter's Marsh and by *Piquet* from St. Ouen's Pond, and is, according to Lloyd, the most common form in W. France. The Jersey plant seems to me to be intermediate: the stems are often procumbent, but do not produce leaves or root at the nodes.

### Hydrocharitaceæ.

Elodea Mich.

1, E. Canadensis Mich. (Anacharis Alsinastrum Bab.)

Denizen. Still ponds. Rare. June to August.

Town Mill Pond. J. Piquet, sp. 1872! Pond on the cliffs near Noirmont, where Mr. Piquet planted it many years ago. Frequent in France. A North American species which appeared in Ireland in 1836, in England in 1841, and in France in 1875. After spreading with amazing rapidity in England it seems now to have reached the limits of its extension. The male plant is said to be very rare in England and unknown in France.

### Gramineæ.

### 1. PANICUM L.

 P. SANGUINALE L. (DIGITARIA SANGUINALIS Scop.) Native, in all probability. Roadsides and sandy places. Local. July to September. Sandy fields, St. Brelade's, &c. J. Piquet, sp. 1871 ! College Hill and Rosemount (abundant). Pontac. Gorey. F. A. Rogers.

Frequent in Normandy and Brittany : common further south.

 P. CRUS-GALLI L. (ECHINOCHLOA P. BEAUV.) Colonist. Cultivated fields. Local. July to September. St. Peter's Valley. Beaumont Hill. Grève de Lecq. Grouville. St. Helier's. Guernsey (casual). Alderney (ditto). France.

2. Setaria Beauv.

1. S. VIRIDIS Beauv.

Colonist. Cultivated fields. Local. July to September. St. Ouen's Bay. Bab. The Queuvais. F. Piquet, 1871! Near Victoria College. St. John's. Samarès. Guernsev (casual). France.

3. Phalaris L.

### 1. P. MINOR Retz.

Colonist, perhaps hardly more than a casual. Very local. July to September.

Plentiful beside the railway E. of St. Luke's Station, where it was first noticed in 1898. Pontac. S. Guiton.

Much resembles P. CANARIENSIS. Mr. Marquand and Mr. C. R. P. Andrews regard it as native in Guernsey (Journ. Bot., 1900, p. 33). where it has been known since 1788, and as a colonist in Alderney. It is very rare in Normandy, frequent in the maritime districts of Brittany and W. France. Mr. F. H. Davey found it on a railway embankment at Falmouth in 1900. See Journ. Bot., 1900, p. 355.

2. P. canariensis L.

A frequent casual.

3. P. arundinacea L.

S. verticillata Beauv. Casual. "In sandy fields, rare." J. Piquet.

The garden variety, with variegated foliage, is well established in the Town Mill Pond. *Mr. Piquet's* record, "Sandy brook near St. Peter's Marsh," may refer to the wild plant, but I have not seen it. Extinct, if ever found, in Guernsey.

4. ANTHOXANTHUM L.

1. A. ODORATUM L.

Native. Fields, dry hillsides, and sandy places. Abundant. April to June.

Guernsey. Alderney. Sark. France.

5. MILIUM L.

1. M. EFFUSUM L.

Native. Wet places. Extinct? Samarès Miles. J. Piquet, sp. 1865! France.

6. Phleum L.

1. P. PRATENSE L.

Native? Meadows and roadsides. Decidedly rare. June, July.

Valley des Vaux. F. Piquet, 1871! Swiss Valley. Near Victoria College.

Guernsey (? casual). Alderney (rare). France.

2. P. ARENARIUM L.

Native. Sandy places. Locally abundant. April to June. Abundant in all the sandy bays and on the Quenvais.

Guernsey. Alderney. France.

7. Alopecurus L.

1. A. GENICULATUS L.

Native. Common in damp places. May to August. Guernsey. Alderney. Sark. France.

2. A. pratensis L.

Native. Meadows. Very local. May, June.

St. Peter's Marsh. F. Piquel, 1871! Waterworks Valley. Meadows near George Town.

Guernsey (local). Alderney (rare). Sark. France.

3. A. agrestis L.

A rare casual. Garden weed in St. Helier's, 1899. Near Gorey Castle. J. Piquet.

38

8. MIBORA Adans.

1. M. VERNA BEAUV. (M. MINIMA DESV. AGROSTIS L. KNAPPIA AGROSTIDEA Sm., &c.)

Native. Dry hillsides and sandy fields. Abundant, especially in the south and west. February to May. Guernsey (rare). Normandy (local). W. France. W. Europe; in England only in Anglesev and Essex.

9. Agrostis L.

1. A. VULGARIS With.

Native. Roadsides, dry hillsides, &c. Common. June to September.

Guernsey. Alderney. Sark. France.

2. A. ALBA L.

Native. Fields, waste places on the coast, &c. Common. June to August.

Guernsey. Alderney. Sark. France.

10. CALAMAGROSTIS Adans.

1. C. EPIGEIOS Roth.

Native. Rough places on the coast. Rare. July. August. La Saline, St. John's. St. Catharine's Bay. Guernsey (rare). France.

11. AMMOPHILA Host.

1. A. ARUNDINACEA HOST. (PSAMMA ARENARIA R. & S. ARUNDO L. CALAMAGROSTIS Roth.)

Native. Abundant on the sands of the coast. June, July. Guernsey. Alderney. France.

12. Lagurus L.

1. L. ovatus L.

Introduced from Guernsey, it is said, but abundant and thoroughly naturalised in several places in the sands of St. Ouen's Bay. June, July.

Common and apparently native in N. Guernsey. Normandy (very rare). A maritime species of S. Europe, extending up the W. coast of France.

### 13. Holcus L.

1. H. MOLLIS L.

Native. Woods and hedges. Frequent. June to August.

Waterworks Valley. Noirmont. Near Trinity Manor. St. Catharine's Bay. Queen's Valley, Grouville.

Guernsey. Alderney. Sark. France.

2. H. LANATUS L.

Native. Abundant in the meadows in the valleys. June to August.

Guernsey. Alderney. Sark. France.

14. AIRA L.

1. A. CARYOPHYLLEA L.

Native. Sandy fields and dry hillsides. Abundant. May to July.

Guernsey. Alderney. Sark. France.

Var. MULTICULMIS (Dum.)

St. Brelade's. La Moie Heath.

2. A. præcox L.

Native. Dry hillsides, &c. Very common. April to June. Guernsey. Alderney. Sark. France.

15. Corynephorus Beauv.

 C. CANESCENS P. BEAUV. (AIRA L. WEINGÆRTNERIA BERNH.) Native. Sand-dunes in the west. Local. June to August. St. Brelade's Bay. The Quenvais. L'Etac. Normandy and Brittany, but rare. Common further south.

16. DESCHAMPSIA Beauv.

1. D. FLEXUOSA Trin.

Native. Wooded hillsides. Very rarc. June, July. Victoria College Grounds, 1897. Rather local in France.

17. TRISETUM Pers.

1. T. PRATENSE Pers. (T. FLAVESCENN BEAUV. AVENA FLAVES-CENS L.)

Native. Upland meadows. Apparently very rare. June, July.

Victoria College Grounds and near Bagatelle.

Alderney (locally abundant). France.

# 18. Avena L.

 A. PUBESCENS Huds. Native. Sand-dunes. Rare. May, June. The Quenvais, N.E. of the Rifle Range, overlooking St. Ouen's Bay.

Alderney. France.

2. A. fatua L.

Waste places. An occasional casual.

19. ARRHENATHERUM Beauv.

 A. AVENACETM BEAUV. (AVENA ELATIOR L.) Native. Hedges and waste places. Frequent. June, July. Guernsey. Alderney. Sark. France.

#### 20. PHRAGMITES Trin.

 P. COMMUNIS Trin. (ARUNDO PHRAGMITES L.) Native. Ponds and ditches. Frequent. July to October. St. Brelade's Bay. Portelet. St. Ouen's Pond. L'Etac. Samarès Canal. Guernsey. Alderney. Sark. France.

### 21. TRIODIA R. Br.

1. T. DECUMBENS BEAUV. (SIEGLINGIA Bernh. DANTHONIA DC.) Native. Heaths and rough, damp places. Frequent. June to August.

Common in suitable localities.

Guernsey. Alderney. Sark. France.

22. MOLINIA Schrank.

1. M. VARIA Schrank. (M. CERULEA Mœnch.) Native. Rough, heathy ground. Abundant on the cliffs in the north and on the hillsides in some of the valleys. July to September.

Guernsey. France.

23. Kœleria Pers.

1. K. CRISTATA Pers.

Native. Sand-dunes. Local. June, July.

Abundant on the Quenvais, and on the dry hillsides near L'Etac. Grouville Common.

Guernsey. Alderney. France. Always rather a local plant. Apparently the form K. ALBESCENS DC., which is frequent, according to Corbière, on the sands of the coast of Normandy.

### FLORA OF JERSEY.

24. CATABROSA Beauv.

1. C. AQUATICA Beauv.

Native. Wet places. ? Extinct. June, July.

"Ditches at Samarès Miles. Rare." J. Piquet, sp. 1860 ! Guernsey. France.

25. Briza L.

1. B. maxima L.

Denizen. Dry banks. Rare. May to July.

Naturalised for at least forty years (Phytologist, 1860) on the hillside above St. Aubin's. Also on the cliffs near the Old Fort on the W. side of St. Brelade's Bay. Casual on rubbish heaps.

Naturalised in Guernsey, but not mentioned by Lloyd, Corbière, or Brébisson, though Liègard states that it is naturalised on the coast of Finisterre. A S. European plant.

2. B. MINOR L.

Native. Sandy fields. Not common. July to August.

Samarès. Portelet Bay. Five Oaks. Old Quarry in the Grand Val. Grouville Bay. F. Piquet, 1869!

Guernsey. Sark. France. S. and W. Europe, as far north as the S. of England and Ireland.

26. DACTYLIS L.

### 1. D. GLOMERATA L.

Native. Fields, hedges, and waste places. Abundant. June, July.

Guernsey, Alderney, Sark, France.

#### 27. Cynosurus L.

1. C. CRISTATUS L.

Native. Meadows and damp places. Common. June, July. Guernsey. Alderney. Sark. France.

# 2. C. ECHINATUS L.

Native. Dry hillsides. Very local. June, July.

"On the grassy slopes near the sea below Fort Regent." Bab. Still at La Collette. West Mount. Hill above L'Etac. Guernsey (very local). Normandy (very rare). W. France (local). Central and S. Europe, as far north as Guernsey and Flanders. 28. POA L.

- 1. P. ANNUA L. Native. Ubiquitous. All the year round. Guernsey. Alderney. Sark. France.
- 2. P. PRATENSIS L. Native. Meadows, roadsides, sand-dunes, &c. Common. May to July. Guernsey. Alderney. Sark. France. Dwarf, with short leaves and compact panicles, on the sand-dunes (var. MARITIMA Corb.). 3. P. TRIVIALIS L.
  - Native. Woods, meadows, and damp places. Common. May to July. Guernsey. Alderney. Sark. France.

29. GLYCERIA R. Br.

1. G. FLUITANS R. Br. (Ag.).

Native. Wet places. Common. June to August.

Guernsey. Alderney. Sark. France.

A plant from the Waterworks Valley was named by the Rev. W. Moyle Rogers G. PEDICELLATA Townsend. I do not understand the segregates.

30. Atropis Rupr.

- 1. A. MARITIMA Gris. (GLYCERIA MARITIMA Mert. & Koch.)
  - Native. Waste places on the coast. Very rare. June, July. Grève d'Azette, Bab. "On a detached rock at La Collette: rare." J. Piquet. I have failed to find it, but have seen a specimen gathered by Mr. Piquet in 1870. Guernsev (rare). France.
- 2. A. DISTANS Gris. (GLYCERIA DISTANS Wahl.) Native. Same situations. Very rare. June, July. George Town, Rev. W. Moyle Rogers, 1897. Guernsev. France.

#### 31. FESTUCA L.

- 1. F. ELATIOR L.
  - Native. Damp meadows. Not common. May, June. St. Ouen's Pond. Guernsey. France.

2. F. ARUNDINACEA Schreb.

Native. Sands on the coast. Local. June, July. Millbrook. W. Moyle Rogers. Grouville. Guernsey. Alderney. France.

3. F. OVINA L.

Native. Rough hillsides, sandy commons, &c. Common. May to July.

Guernsey. Alderney. Sark. France.

Var. TENUIFOLIA (Sibth). (F. CAPILLATA Lam.)

Heathy hillside in the Grand Val, and doubtless elsewhere. Rather a marked form, and, according to the French Floras, by far the commonest in France. F. OVINA L. is said by Corbière to be rare in Normandy.

4. F. RUBRA L.

Native. Dry places. Abundant round the coast. May to July.

Guernsey. Alderney. Sark. France.

5. F. ORARIA Dumort. (F. ARENARIA Osbeck. F. SABULICOLA Duf.) Native. Sand-dunes. Frequent. May to July.

St. Aubin's Bay. St. Ouen's Bay. Grouville Bay. Pontac. Guernsey. Alderney. France.

The glumes are usually publicent, occasionally glabrate (F. GLABRATA Lebel).

6. F. UNIGLUMIS Soland. (VULPIA MEMBRANACEA Link. V. BRO-MOIDES Reichb.)

Native. Sands on the coast. Local. May, June.

St. Aubin's Bay. St. Ouen's Bay. The Quenvais. Grouville Bay.

Guernsey. Alderney. Sark. France. S. and W. Europe, as far north as Chester.

7. F. SCIUROIDES Roth. (VULPIA Gmel.)

Native. Roadsides, wall-tops, and dry, sandy places. Common. May, June.

Guernsey. Alderney. Sark. France.

8. F. MYURUS L. (VULPIA Gmel.)

Native. Wall-tops and dry, sandy places. Frequent. May, June.

Walls in St. Helier's. Sands at Bel Royal. Beau Port, St. Brelade's.

Guernsey (rare). France.

F. AMBIGUA Le Gall. was recorded from "sandy ground close to Grouville Station" by *Mr. T. B. Blow* in the Report of Bot. Loc. Rec. Club, 1876, p. 184.

#### 32. CATAPODIUM Link,

1. C. LOLIACEUM Link. (FESTUCA ROTTBELLIOIDES Kunth.) Native. Rocks and sandy fields near the sea. Frequent. May to July.

Common on the sands of St. Aubin's and St. Ouen's Bays. Cliffs at St. John's. The Écrèhos Rocks.

Guernsey. Alderney. Sark. France.

### 33. Scleropol Griseb.

 S. RIGIDA Griseb. (FESTUCA Kunth. SCLEROCHLOA Reichb.) Native. Walls and dry, sandy places. Frequent. June, July.

Common in the sandy bays. The Quenvais. Walls in St. Helier's and at Samarès.

Guernsey. Alderney. France.

### 34. BROMUS L.

#### 1. B. MADRITENSIS L.

Native. Sands and dry places on the coast. Very local.  $\mathrm{May}, \mathrm{June}.$ 

On the islet called Janvrin's Tomb in Portelet Bay. Near Gorey. Mr. J. W. White, Report of Bot. Exch. Club, 1896. Mt. Orgueil Castle.

Guernsey (very local). Sark. J. W. White. Normandy (one certain locality). W. France (common, if Lloyd understood the plant). S. and W. Europe, as far north as Wales and Oxford.

"Found by Dr. Sherard on the sandy grounds in Jersey plentifully," if the identification of Ray's plant is correct. His description runs (Syn., p. 413, *cf.* the plate on p. 374): "Festuca Avenacea sterilis paniculis confertis erectioribus, aristis brevioribus, Syn. ii. 261. 4. sterilis humillima, spica unam partem spectante Pet. Conc. Gr. n. 101."

The Jersey plant is var. RIGIDUS Bab., and is distinguished by the pubescent (not scabrid) glumes and pedicels—a very slight variation. Babington's account of this and the succeeding species is clear and good. B. RIGIDUS Roth. is, according to Prof. E. Häckel, "nothing but stout madritensis. Grenier and Gordon (and Lloyd) misunderstood it totally by naming it as a variety of maximus."--Report of Bot. Exch. Club, 1898, p. 593.

2. B. MAXIMUS Desf.

Native. Sandy fields. Locally abundant. May to July.

St. Helier's. St. Aubin's Bay. St. Ouen's Bay. Grouville Common. Pontac. Grève d'Azette.

Guernsey (? casual). Alderney (abundant). Normandy. W. France. S. and W. Europe as far north as Alderney and Normandy.

3. B. STERILIS L.

Native. Roadsides and hedges. Common. May, June. Guernsey. Alderney. Sark. France.

4. B. mollis L.

Native. Fields and waste places. Very common. May to July.

Guernsey. Alderney. Sark. France.

- ? Var. HORDEACEUS Fr. (B. HORDEACEUS L., B. ARENARIUS Thom.), a plant with decumbent stems and compact, ovoid panieles, with glossy, very short-stemmed spikelets, is common on the sands of the coast. Multitudes of dwarf plants with one, two, or three spikelets may often be found. (? B. NANUS Weig.)
- 5. B. commutatus Schrad.
  - ? Casual. Not seen recently.

Fields near St. Saviour's. Bab. "Rare." J. Piquet, sp. 1870!

6. B. secalinus L.

? Casual. Not seen recently.

"The Quenvais and St. Aubin's Bay. Rare." J. Piquet, sp. 1872!

7. B. unioloides Kunth.

Casual.

Hillside above St. Aubin's. J. W. White in Report of Bot. Exchange Club, 1897.

35. BRACHYPODIUM Beauv.

1. B. SILVATICUM R. and S.

Native. Woods and hedges. Rather local. June to August.

St. Aubin's. La Saline, St. John's. Gi ard Bay. Rozel. Fliquet Bay. Grouville.

Guernsey. Alderney. Sark. France.

36. NARDUS L.

1. N. STRICTA L.

Native. Damp, heathy places. Rare. May to July. Heights above Bouley Bay. J. Piquet, sp. 1864! Giffard Bay. Bonne Nuit Bay.

Normandy (rather local). W. France.

# 37. Lolium L.

1. L. PERENNE L.

Native. Fields and roadsides. Common. June to October. Guernsey. Alderney. Sark. France.

L. NULTIFLORUM Lann. and L. ITALICUM A. Braun, recorded by Mr. Piquet, are of course cultivated forms.

2. L. TEMULENTUM L.

Colonist. Cultivated fields and waste places. Rare. June to August.

"The Quenvais : in cornfields, but rare." J. Piquet. The Corbière.

Guernsey? Alderney? Sark. France.

38. Lepturus R. Br.

1. L. FILIFORMIS Trin. Var. INCURVATUS (Trin.).

Native. Dry, waste places near the sea. Rare. June, July.

"Sea-shore at La Collette. Le Hocq. St. Clement's, &c. Rare." J. Piquet, sp. 1870! St. Clement's. Bab. Between the Corbière and St. Ouen's Pond. Science Gossip, 1878. Still plentiful at La Collette.

Guernsey. France.

39. AGROPYRUM Gærtn.

1. A. REPENS Beauv.

Native. Hedges, sandy shores, &c. Abundant. June to September.

Guernsey. Alderney. Sark. France.

Presents the usual variations. Var. BARBATUM Duval-Jouve is common.

2. A. ACUTUM R. and S. (TRITICUM LAXUM Fr.).

Native. Sandy sea-shores. Local. June to August.

Grève d'Azette. Pontac. Grouville Bay.

Alderney? France.

Seems to match specimens named for the Botanical Exchange Club by Prof. E. Häckel in 1897. He says that it is not quite the same as TRITICUM ACUTUM DC. from S. France, and adds, "It is very difficult to give a short and good name for this form." A. PUNGENS R. and S. is recorded by Mr. Marquand from Guernsey and Alderney. If it is the plant I take it to be, with densely tufted stems and stiff, involute leaves, I have never seen it in Jersey.

3. A. JUNCEUM Beauv.

Native. Sandy sea-shores. Local. June to August.

St. Aubin's Bay. St. Ouen's Bay. Grouville. Pontac. Guernsey. Alderney. France.

40. Hordeum L.

1. H. MURINUM L.

Native. Dry, waste places. Abundant. June to August. Guernsey. Alderney. France.

Var. ARENARIUM Bab. (Fl. Sarn.)—" radice in arena marina pseudo-repente "—from St. Aubin's Bay, seems a mere state of the plant.

#### Cyperaceæ.

1. Cyperus L.

1. C. LONGUS L.

Native. Damp fields. Common. July, August.

La Moie. St. Ouen's Pond. Waterworks Valley. Rozel. Samarès. La Rocque, &c.

Guernsey. Alderney. Sark. France.

2. Eriophorum L.

1. E. ANGUSTIFOLIUM L.

Native. Wet places. Local and rare. May, June.

La Moie Common. La Pulente, F, Piquet. St. Ouen's Pond. Canal du Squez, L'Etac.

Guernsey (rare, "E. POLYSTACHYON L."). Common in France, except in calcareous districts.

#### 3. Scirpus L.

1. S. FLUITANS L. (ELEOGITON Link.)

Native. Marshes and ponds. Not common. June to August.

St. Peter's Marsh, Bab. St. Brelade's Bay. Grosnez. Grouville Marsh.

Common in France, except on calcareous soils.

2. S. SAVII Seb. and Maur. (S. CERNUUS Vahl. ISOLEPIS SAVIANA Schult.)

Native. Damp places on the coast. Local. June to August. La Moie Common. St. Ouen's Pond. La Saline, St. John's.

Guernsey. Aldorney. Sark. France. A W. European maritime plant, extending as far east as Greece in the Mediterranean region.

The prevalent, if not the only, form is the one with single spikelets, the right name of which is now said to be var. MONOSTACHYS Hook. fil., not var. PYGMÆUS (Kunth) as in the English Floras. See Report of Bot. Exch. Club, 1901.

3. S. SETACEUS L. (ISOLEPIS SETACEA R. Br.)

Native. Damp places. Local. June to August.

Beau Port, St. Brelade's. Waterworks Valley. Grand Val. St. Catharine's Breakwater. Samarès Meadows.

Guernsey. Alderney. Sark. France.

4. S. TABERNÆMONTANI Gmel.

Native. Ponds and ditches near the sea. Very local. June, July.

St. Ouen's Pond. Samarès Canal.

Guernsey (rare). Alderney (one station). France.

Both Babington and Piquet call the Jersey plant S. LACUSTRIS L. The two names probably cover a chain of connected forms.

5. S. PUNGENS Vahl. (S. ROTHII Hoppe.)

Native. Edges of ponds. Abundant in its only station, round St. Ouen's Pond. July to September.

Normandy (rare). W. France (local).

6. S. MARITIMUS L.

Native. Ponds near the sea. Local and rare. June to August.

49

Marshes near the Grève d'Azette. *Bab.* Still in a small stagnant pool in Samarès Marsh. St. Ouen's Pond. Guernsey. Alderney. On the rock Burhou. France.

### 4. Heleocharis R. Br.

1. H. PALUSTRIS R. Br. (stigmas 2).

Native. Ditches and ponds. Common. June to August. Guernsey. Alderney. Sark. France.

The generic name should be spelt with an H, as the Greek word from which it is derived has an aspirate.

2. H. MULTICAULIS Sm. (stigmas 3).

Native. Marshy places. Frequent. June, July.

St. Brelade's Bay. St. Ouen's Pond. L'Etac. Bouley Bay. Giffard Bay.

Guernsey. Alderney. France.

"I have never yet seen H. PALUSTRIS with a 3-fid style or H. MULTICAULIS with a 2-fid." C. B. Clarke, Report of Bot. Exchange Club, 1897, p. 570.

5. Schenus L.

1. S. NIGRICANS L.

Native. Marshy places. Very local. May to July.

St. Ouen's Pond (plentiful). La Moie Common. La Pulente.

Guernsey. Alderney. France.

6. CLADIUM Schrad.

1. C. MARISCUS R. Br.

Native. In great abundance in St. Ouen's Pond, the only station. July to September.

Normandy (rare). W. France (local).

7. CAREX L.

1. C. PULICARIS L.

Native. Swampy places. Local. May, June.
La Moie. Bab. The Corbière. La Saline, St. John's.
Bonne Nuit Bay. J. Piquet. Giffard Bay. Bouley Bay.
Guernsey (rare). Alderney. France.

 C. DIVISA Huds. Native. Sandy places. Very rare. June, July. St. Ouen's Bay, on a bank at the edge of a ditch a little

south of the Pond, where it was discovered by the Rev. P. I
Playfair in 1901 (!).
Normandy (frequent on the coast). Rather rare in Brittan common further south.
3. C. ARENARIA L.
Native. Sands on the coast. Abundant. May, June.
Guernsey. Alderney. Sark. C. P. Hurst. France.
4. C. PANICULATA L.
Native. Rough, damp places. Very rare. May, June.
Cliffs at La Saline, St. John's. J. Piquet, 1898 (!).
Guernsey (rare). Alderney (rare). Rather local i
France.
5. C. VULPINA L.
Native. Damp places. Not common. May, June.
St. Ouen's Pond. Giffard Bay. St. Catharine's Ba
Samarès Marsh. Grand Val.
Guernsey. France.
6. C. MURICATA L.
Native. Dry banks. Frequent. May, June.
Plentiful about St. Aubin's and St. Peter's. St. Catha
rine's. Samarès. St. Helier's, &c.
Guernsey. Alderney. Sark. France.
Var. REMOTA Schultz (fide .1. Bennett), a form with remot
lower spikelets, simulating C. DIVULSA Good., grows on th
slopes of Mt. Orgueil.
7. C. REMOTA L.
Native. Shady banks. Not common. May, June.
Bouley Bay. J. Piquet. Waterworks Valley. Town Mi
Pond. Mt. Orgueil.
Guernsey (rare). France.
8. C. ECHINATA Murr. (C. STELLULATA Good.). Native. Damp places. Frequent. May, June.
St. Brelade's. Waterworks Valley. Grand Val. Bonn
Nuit Bay. J. Piquet. Bouley Bay.
Guernsey (rare). Alderney (rare). France.
9. C. OVALIS Good. (C. LEPORINA L.)
Native. Damp places. Local. May, June.
Goose Green. St. Ouen's Pond. Grand Val. La Saline
St. John's. St. Catharine's Breakwater.
Guernsey (rare). Sark. France.
Outrosty (latt). Dain. I lance.

 C. GOODENOVH GAY (C. VULGARIS Fr. C. CÆSPITOSA GOOd.). Native. Damp meadows. Rare. May, June. St. Ouen's Pond. Samarès Meadows. Grand Val. Guernsey (rare). Rather local in France.

 C. GLAUCA MURT. (C. FLACCA Schreb.) Native. Chiefly on heavy soils. Frequent. April to June. St. Brelade's Bay. The Quenvais. St. Ouen's Pond. L'Etac. Bouley Bay. Samarès Meadows. St. Helier's (var. AGGREGATA Reichb., with spikelets compound at the base). Guernsey. Alderney. France.

 C. PILULIFERA L. Native. Heathy places. Very local. April, May. St. Catharine's Bay. Bab. Noirmont Warren. Giffard

Guernsey (rather rare). Sark. France.

13. C. PRÆCOX Jacq. (C. VERNA Chaix.)

Native. Grassy places. Rather common. April, May. St. Brelade's. The Corbière. Vallée des Vaux. Bonne Nuit Bay. Grouville Common.

Guernsey. Alderney. Sark. France.

### 14. C. PANICEA L.

Native. Marshy places. Local. May, June.

St. Brelade's. La Moie. Bab. The Quenvais. J. Piquet.

St. Ouen's Pond. Le Marais, St. Ouen's. Bouley Bay. Grand Val. St. Peter's.

Guernsey (rare). Alderney. France.

15. C. PENDULA Huds.

Native. Rough cliffs. Very rare. May, June.

Base of the cliffs at La Saline, St. John's. J. Piquet !

Guernsey (very rare, in a similar situation). Rather local in France.

# 16. C. LÆVIGATA Sm.

Native. Damp, shady places. Very local. May, June. Bouley Bay. Rev. W. Moyle Rogers ! Near Moulin de Paul Mill Pond in the Grand Val.

Guernsey. Normandy (locally frequent). W. France.

To be distinguished from C. BINERVIS by the lanceolate acuminate glumes, the green perigynia, and the broader, softer leaves, as well as by the situations in which it grows.

Bay. Bouley Bay.

17. C. BINERVIS Sm.

Native. Open hillsides and heaths. Local. May, June. Bouley Bay. *Rev. W. M. Rogers* / Bonne Nuit and Giffard Bays (abundant). Grand Val.

Normandy (frequent). Brittany (common). W. France.

Foliage and stems harsh and strict: glumes ovate or oblong, often with a short mucro: perigynia dark-coloured.

18. C, DISTANS L.

Native. Damp places near the sea. Rare. May, June. Streamlet on the cliffs at Grosnez. Samarès Meadows. Guernsey (frequent). France.

Native. Damp places on the shore. Very rare. May, June. At the base of the cliffs at Giffard Bay. 1901.

Guernsey (rare). Sark. C. P. Hurst. Very rare in Normandy and Brittany, local further south.

20. C. EXTENSA Good.

Native. Damp places near the sea. Very local. May, June. Plentiful between the Corbière and Petit Port. Canal du Squez, L'Etac.

Rare in Guernsey, Alderney, and Normandy. Local further S.

21. C. FLAVA L. (Aggregate.)

Native. Damp places. Frequent. May to June.

Noirmont. St. Brelade's Bay. St. Ouen's Pond. Pont Marquet. St. Peter's. La Saline, St. John's. Bouley Bay, &c.

Guernsey. Alderney. Sark. France.

I do not understand the segregates. Mr. A. Bennett named one plant var. MINOR TOWNS., and another C. (EDERI?

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22. C. HIRTA L.
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Native. Grassy places. Frequent. May to July.

Goose Green. St. Brelade's Bay. Don Bridge. St. Ouen's Bay. Waterworks Valley. Grand Val. Samarès Meadows. Guernsey. Alderney (the commonest Carex). France.

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23. C. PSEUDO-CYPERUS L.
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Native. Wet places. Very rare. May to June.

St. Ouen's Pond, N.E. side. July 25, 1900. Probably inaccessible in any but a very dry summer. Frequent in France.

53

<sup>19.</sup> C. punctata Gaud.

#### Araceæ.

1. Acorus L.

1. A. calamus L.

Denizen. Planted by *Mr. J. Piquet* in a pond on the top of the cliffs between Portelet and Noirmont, where it is thoroughly established.

Brittany (local). W. France (common).

2. ARUM L.

1. A. MACULATUM L.

Native. Hedge-banks. Frequent. April, May. St. Helier's. Millbrook. Grand Val. Trinity. Guernsey. Sark. France.

2, A. ITALICUM Mill.

Native. Hedges and waste places. Locally abundant, especially in the south: the commoner of the two species. April, May.

Bagot. Le Hocq. Grouville. L'Etac. Waterworks Valley. Fliquet Bay:

Guernsey (rare). Sark (?) France. S. and W. Europe, as far north as the S. coast of England.

#### Lemnaceæ.

LEMNA L.

1. L. TRISULCA L.

Native. Ditches. Very rare.

Marsh near the Grève d'Azette. Bab. South side of St. Ouen's Pond.

Sark. Normandy (frequent). W. France.

2. L. MINOR L.

Native. Ponds and ditches. Common.

Guernsey. Alderney. Sark. France.

3. L. GIBBA L.

Native. Stagnant pools. Very local.

Samarès Meadows. Portelet Bay.

Guernsey. Normandy (common near the sea). W. France (common).

4. L. POLYRRHIZA L.

Native. Stagnant ditches. Very rare.

Between George Town and Samarès. 1899.

Guernsey (very rare). Normandy. W. France.

#### Juncaceæ.

1. JUNCUS L.

1. J. BUFONIUS L.

Native. Places where water has stood. Common. June to September.

Guernsey. Alderney. Sark. France.

2. J. GERARDI Loisel.

Native. Swampy ground near the sea. Very local. July, August.

Swamp half a mile south of St. Ouen's Pond. Between Samarès and Le Hocq.

Guernsey. Lihou. France.

3. J. GLAUCUS Leers.

Native. Damp places on heavy soils. Not common. June July.

The Quenvais. St. Ouen's Pond, and at the north end of St. Ouen's Bay. St. Catharine's Breakwater.

Alderney. France.

4. J. COMMUNIS Meyer.

Native. Damp places. Common. June to July.

Guernsey. Alderney. Sark. France.

The two forms, J. EFFUSUS L. and J. CONGLOMERATUS L., are about equally common. It is hard to see why they are maintained by so many botanists as distinct species. There is nothing to separate them but the habit.

5. J. MARITIMUS Lam.

Native. Sea-shores. Not common. July to September.

"Near the Pinnacle Rock, St. Ouen's, and at Petit Port, St. John's." J. Piquet. St. Ouen's Pond. Small bay north of the Corbière.

Guernsey (rare). Alderney (rare). France.

6. J. Acutus L.

Native. Sandy and rocky shores. Local. June to August. Abundant on the Quenvais near La Morè. North side of St. Ouen's Pond. St. Catharine's Breakwater. Anne Port. Guernsey (local). Alderney. Normandy. W. France.

7. J. SUPINUS Mœnch.

Native. Swampy places. Rare. June to August.

La Moie Common. Canal du Squez, L'Etac. Bonne Nuit, Bay. F. Piquet !

Guernsey (rare). Alderney (rare). Sark. France.

8. J. OBTUSIFLORUS Ehrh.

Native. Wet places. Very local. July to August.

St. Ouen's Pond (abundant).

Frequent in France.

Var. CONFERTUS Döll. Rhein. Fl. 180, 1843 (fide A. Bennett). South side of the Pond, with the type.

The flowers aggregated into a few dense, suborbicular heads.

This form bears a superficial resemblance to some forms of SCIRPUS HOLOSCHENUS.

9. J. LAMPROCARPUS Ehrh.

Native. Damp places. Not common. June to August.

Near La Moie signal post. *Bab.* St. Ouen's Pond. Bouley Bay.

Guernsey. Alderney. Sark. France.

10. J. ACUTIFLORUS Ehrh.

Native. Damp places. Local. June to August. St. Ouen's Pond. La Moie. Portelet Bay. St. Catharine's

Breakwater. Grosnez. Giffard Bay.

Guernsey. Alderney. Sark. France.

11. J. CAPITATUS Weigel. (J. ERICETORUM Pol.)

Native. Heathy hillsides. Local. April to June.

Portelet Bay. Grosnez. St. Catharine's Breakwater. Waterworks Valley.

Guernsey (rare). Sark. Normandy (very rare). W. France (local). In England only from W. Cornwall.

2. LUZULA DC.

1. L. FORSTERI DC. (fide A. Bennett).

Native. Shady banks. Rare. April, May.

At the entrance to the drive to Noirmont Manor. Abundant in a hedge opposite Beau Coin, St. Aubin's. "Jersey, Prof. La Gasca." *Bab.* 

Normandy. W. France.

2. L. MAXIMA DC. (L. SILVATICA Gaud.)

Native. Bushy places. Rare. May.

Plentiful in a gully running down to the sca at Bonne Nuit Bay.

Guernsey (very local). Local in Normandy and W. France.

3. L. CAMPESTRIS DC.

Native. Common on banks and on the cliffs. March to May.

Guernsey. Alderney. Sark. France.

4. L. ERECTA Desv. (L. MULTIFLORA DC.)

Native. Grassy places. Frequent. April, May.

Waterworks Valley. Grand Val. La Saline, St. John's. St. Catharine's Bay. Bouley Bay.

Guernsey. Alderney. Sark. C. P. Hurst. France.

#### Liliaceæ.

1. Allium L.

1. A. SPHÆROCEPHALUM L.

Native. Sands of the shore. Very local. June, July.

St. Aubin's Bay, near Bel Royal, plentiful but probably doomed.

Normandy (rather rare). W. France (frequent on the coast). Widely distributed in Continental Europe from Belgium S. In England only at St. Vincent's Rocks, Bristol.

## 2. A. VINEALE L.

Native. Sandy fields on the coast and dry hillsides. Locally abundant. June, July.

Guernsey (very rare). Common in France.

The form in which the flowers are replaced by bulbils (A. COMPACTUM Thuill.) is by far the most common.

3. A. triquetrum L.

Naturalised alien. Shady banks and hedges, but never far from houses. Not uncommon in the south. May, June.

St. Aubin's. Millbrook. Grouville.

A plant of S. France, Spain, and Italy. Not in Normandy or W. France, but common in hedges in Guernsey, where it is no doubt an escape from cultivation. It seems to be spreading in Jersey.

## 2. Scilla L.

1. S. AUTUMNALIS L.

Native. Dry hillsides all round the coast. Frequent. July to September.

West Mount. Portelet Bay. L'Etac. Grosnez. Gorey, &c. Guernsey (frequent). Alderney. Sark. Normandy (frequent

on the coast). W. France. S. and W. Europe, as far north as Gloucester and Middlesex.

2. S. FESTALIS Salisb. (S. NUTANS Sm. AGRAPHIS Link. ENDY-MION Dumont. HYACINTHUS NON-SCRIPTUS L.) Native. In woods and on the cliffs. Very common. April,

Mative. In woods and on the chills. Very common. April, May.

Guernsey. Alderney. Sark. France.

Sea air seems to suit this plant. Mr. Marquand found it in abundance and exceptionally fine on the isolated rock Burhou.

3. Muscari Mill.

1. M. comosum Mill.

Casual. Several fine plants appeared in a field of lucerne near L'Etac in 1901.

### 4. Ruscus L.

1. R. ACULEATUS L. Butcher's Broom.

Native. Common on rough hillsides and on the cliffs. January to March.

Guernsey (local). Alderney. Sark. France. S. and W. Europe.

5. Asparagus L.

1. A. OFFICINALIS L. VAR. MARITIMUS L. (A. PROSTRATUS Dum.)

Native. Cliffs by the sea. Rare. May, June.

Between St. Brelade's and the Corbière, from which locality *Bab*, records it on the authority of *Mr. J. Woods*.

Guernsey. Normandy (very rare). W. France. S. and W. Europe as far north as Anglesey.

The true wild plant, preserving its characteristics when cultivated at a distance from the sea (Lloyd). The ordinary cultivated form (var. ALTILIS L.) appears occasionally on the sands as an escape.

# Amaryllidaceæ.

1. Galanthus L,

1. G. nivalis L.

"Hedge-banks: very rare: formerly common." J. Piquet. This seems to be a Jersey tradition. I have never seen it outside a garden or orchard. 2. NARCISSUS L.

1. N. PSEUDO-NARCISSUS L.

Native. Locally abundant on the hillsides in the valleys and on the cliffs. March, April.

Swiss Valley. Waterworks Valley. Noirmont. Bouley Bay. Rozel. Anne Port, &c.

Frequent in France. Absent from the other Channel Islands. It is strange that Bubington should not have heard of so abundant a plant.

## Dioscoreaceæ.

1. TAMUS L.

1. T. COMMUNIS L.

Native. Rough places on the cliffs. Rare.

"La Saline, St. John's: also between L'Etacquerel and La Tour de Rozel." J. Piquet sp. 1895 ! Guernsey. Common in France.

#### Iridaceæ.

## 1. ROMULEA Maratti.

R. COLUMNÆ Seb. and Maur. (TRICHONEMA COLUMNÆ Reichb. T. BULBOCODIUM Sm.)

Native. Abundant in the short turf on cliffs, hillsides, and commons. March, April.

Guernsey (common). Alderney (common). Sark. Normandy (rare). W. France as far south as the Loire, below which and in the Iberian Peninsula its place is taken by the closely allied R. BULBOCODIUM Seb. and Maur. Reappears on the Mediterranean coast from the Riviera to Greece. Daw lish in Devonshire is the north limit.

### 2. Iris L.

#### 1. I. FOETIDISSIMA L.

Native. Dry hedge-banks. Not common. May to July.
La Haule and St. Laurence Valley. Bab. St. Ouen's Bay
Le Hocq. Samarès Meadow. The Écrèhos Rocks.
Guernsey. Alderney. Sark. France.

2. I. PSEUD-ACORUS L.

Native. Damp meadows. Common. April to June. Guernsey. Alderney. Sark. France.

### Orchidaceæ.

1. Ophrys L.

1. O. APIFERA Huds.

Native. Dry sandy places. Very rare. June, July. Sands of St. Ouen's Bay. June, 1902.

Guernsey (rare, and apparently doomed). Normandy.

2. Orchis L.

1. O. Morio L.

Native. Damp meadows and hillsides. Very local. April to June.

St. Ouen's Pond (abundant). The Quenvais. Portelet Bay. Guernsey (very rare). France.

The colour varies from a livid purple to cream colour. In an abnormal specimen from the Quenvais the torsion of the pedicel characteristic of the Order was absent, the flowers were consequently inverted, with the labellum uppermost.

2. O. MASCULA L.

Native. Hillsides and thickets. Very local and rare. May. Rozel. J. Piquet sp. ! La Saline, St. John's (one plant, 1901). The Quenvais, near the Rifle Range, very sparingly. 1901.

Guernsey (rather rare). Sark. France.

3. O. LAXIFLORA Lam.

Native. Damp meadows. Locally abundant. May, June. St. Ouen's Pond. Grand Val. Samarès Meadows.

Guernsey. Normandy. W. France.

The colour is remarkably uniform and constant.

4. O. LATIFOLIA L.

Native. Damp meadows. Locally common. May, June. St. Ouen's Pond. Pont Marquet. Samarès Meadows.

Guernsey. Alderney (rare). France.

Variable in colour. Mr. J. Piquet records O. INCARNATA L. ("Wet meadows: rare.")

5. O. maculata L.

Native. Damp meadows. Rather common. May, June. St. Ouen's Pond. Giffard Bay. Bouley Bay. Grand Val. Grouville. Samarès.

Guernsey (common). France.

The colour varies from a deep rose to pure white.

#### 3. ANACAMPTIS L. C. Rich.

 A. PYRAMIDALIS Rich. (Orchis pyramidalis L.) Native. Sandy places. Very rare. June, July. North end of St. Ouen's Bay. Mr. S. Guiton, 1900! Alderney (local). France.

### 4. EPIPACTIS Adans.

### 1. E. PALUSTRIS Crantz.

Native. Damp places. Very local and rare. July, August. The Quenvais. *Bab.* St. Ouen's Pond. Guernsey (very rare). France (local).

#### 5. SPIRANTHES Rich.

### 1. S. AUTUMNALIS Rich.

Native. Sandy places. Not common. August, September.
St. Saviour's. F. Piquet, sp. 1869. Rozel, Miss Higginson.
Gorey Common. Near La Moie Station.

Guernsey. Alderney. Sark. France.

### 2. S. ÆSTIVALIS Rich.

Native. Swampy places. Very local and rare. July, August. St. Ouen's Pond.

Guernsey (very rare). Normandy (rare). W. France (local). W. and Central Europe, as far north as Worcester and Belgium.

# 6. LISTERA R. Br.

### 1. L. OVATA R. Br.

Native. Hillsides among bushes. Very rare. June, July. Near Trinity Manor. J. Piquet. Hillside in the Grand Val near the Moulin de Paul (one plant, 1896). Mont à l'Abbé. J. Piquet, sp. 1902 !

Guernsey (very rare). France.

#### Salicaceæ.

1. Populus L.

1. P. TREMULA L.

Native. Sides of streams and ponds. Not common. March, April.

Town Mill Pond. St. Saviour's Valley. Waterworks Valley.

Guernsey (rather rare). France.

The only indigenous species. As planted trees *P. nigra L.* and *P. alba L.* are common, *P. fastigiata Poir.* and *P. Vir*giana Desf. are frequent, and *P. canescens Sm.* rare.

### 2. Salix L.

1. S. REPENS L.

Native. Rough commons. Very local. April, May.

Le Marais, Noirmont. J. Piquet. The Quenvais. Bab. St. Brelade's Bay.

Guernsey (one station). France.

2. S. CINEREA L.

Native. Hedges, woods, and on the cliffs. Very common. March, April.

Guernsey, Alderney, Sark, France,

S. CAPREA L. and S. AURITA L. are recorded for Guernsey, and S. AURITA for Alderney. I have not met with them in Jersey. Other willows occur as planted trees, *S. viminalis L., S. fragilis L.* (Grouville Common), and *S. alba L.*, as is the case in Normandy.

#### Betulaceæ.

1. Carpinus L.

1. C. Betulus L. (Hornbeam).

Planted. Woods and hedges. Not common. April, May. "Woods." J. Piquet, sp. ! Val des Vaux. F. Piquet, sp. 1871!

Normandy. France.

2. Corylus L.

1. C. AVELLANA L. (Hazel.)

Native. Woods and hedges. Decidedly rare. January and February.

Swiss Valley. Trinity Manor. Rozel.

Guernsey (? extinct). France.

Probably common once, as hazel-nuts occur in the peat deposits both in Jersey and in Guernsey.

# 3. Betula L.

1. B. verrucosa Ehrh. (Birch).

Occasionally planted. Woods and hedges. Rare. April, May.

Grand Val. Rozel. Samarès. Waterworks Valley. Guernsey (very rare). Alderney (planted). France.

## 4. Alnus L.

1. A. GLUTINOSA Gærtn. (Alder).

Native. Beside streams and ponds. Not common. March to May.

Town Mill Pond. Grand Val. Grouville. Guernsey (rare). France.

#### Fagaceæ.

#### 1. FAGUS L.

1. F. SILVATICA L. (Beech).

The Beech appears in various parts of Jersey, in most cases obviously planted. It is impossible to say whether it was ever native.

2. Castanea Adans.

2. C. vulgaris L. (Sweet Chestnut).

Often planted in woods and hedges. Native from the Caspian to Portugal (De Candolle, "Origin of Cultivated Plants"), much cultivated elsewhere in Europe.

### 3. QUERCUS L.

1. Q. ROBUR L. (Oak).

Probably native once. Frequently planted in woods and hedges.

### Ulmaceæ.

### 1. ULMUS L.

 U. MONTANA Sm. (Wych Elm). (U. CAMPESTRIS L.) Possibly native. Woods and hedges. March, April. Guernsey. Alderney. France.

2. U. campestris Sm. A planted tree.

## 2. HUMULUS L.

1. H. LUPULUS L.

4

Native? Hedgerows. Rare. July, August. Grand Val. St. Ouen's Bay.

Guernsey (rare). Alderney (rare). France.

3. Cannabis L.

1. C. sativa L.

An occasional casual. "Naturalised in several places between St. Helier's and St. Aubin's." *Bab.* Not there now. Grouville (1901).

#### Urticaceæ.

1. URTICA L.

1. U. DIOICA L.

Native. Hedges and waste places. Common. June to September.

Guernsey. Alderney. Sark. France.

2. U. URENS L.

Native. Cultivated fields and waste places. Abundant. June to November.

Guernsey. Alderney. Sark. France.

2. Parietaria L.

1. P. OFFICINALIS L.

Native. Hedges and old walls. Common. July to September. Guernsey. Alderney. France.

#### Santalaceæ.

1. Thesium L.

 T. HUMIFUSUM DC. (T. LINOPHYLLUM L.) Native. Dry, sandy places. Very rare. June to August. W. side of the Queuvais. J. Piquet. Grouville Common. Alderney. Normandy. W. France.

#### Polygonaceæ.

1. RUMEX L.

1. R. CONGLOMERATUS MURRAY.

Native. Fields and roadsides. Common. July to September. Guernsey. Alderney. Sark. France.

R. RUPESTRIS Le Gall. was recorded by Mr. T. B. Blow in the Report of the Bot. Loc. Rec. Club for 1876, p. 181, from the shore at Beaumont.

 R. NEMOROSUS Schrad. (R. VIRIDIS Sibth.) Native. Roadsides and hedges. Frequent. July, August. Guernsey. Alderney. Sark. France. 3. R. MARITIMUS TL Native. Wet places. Very rare, perhaps extinct. July, August. St. Ouen's Pond. Bab. La Moie Common. F. Piquet, sp. 1871! Normandy (not common). Brittany. W. France. 4. R. PULCHER L. Native. Roadsides and dry waste places. Very common. June to August. Guernsey, Alderney, Sark, France, 5. R. obtusifolius L. Native. Roadsides, hedges, and fields. Common. June to August. Guernsey. Alderney. Sark. France. 6. R. CRISPUS L. Native. Similar situations. Very common. June to September. Guernsey, Alderney, Sark, France. 7. R. Hydrolapathum Huds. Native. Wet places. Rare. July, August. Near Petit Port. Bab. St. Ouen's Bay, near the Pond. Guernsev. France. 8. R. Acetosa L. Native. Fields, hedges, and waste places. Common. May to July. Guernsey. Alderney. Sark. France. 9. R. Acetosella L. Native. Dry fields and waste places. Abundant. May to September. Guernsey. Alderney. Sark. France. 2. POLYGONUM L4 1. P. CONVOLVULUS L. Native. A frequent weed in cultivated ground. June to September. Guernsey. Alderney. Sark. France. 2. P. AVICULARE L. Native. Fields and waste places. Very common. June to October. Guernsey. Alderney. Sark. France.

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Presents the usual variations, some of which are obviously mere states of the plant due to the influence of external circumstances, while others seem to be true varieties. P. LITTORALE Link, occurs on the sands of the coast: it seems next to impossible to disentangle the other names.

## 3. P. RAII Bab.

Native. Sandy shores. Rare. August to October.

Sands of the Grève d'Azette and St. Ouen's Bay. *Bab.* St. Clement's Bay. *F. Piquet, sp.* 1871! Grouville Bay (fairly plentiful in 1901).

Recorded for Guernsey, Alderney, and Sark. Normandy (rare). Brittany.

Distinct, I think, though approached by robust forms of P. LITTORALE Link.

### 4. P. Hydropiper L.

Native. Damp places. Local. July to October.

Waterworks Valley. Samarès. St. Saviour's Valley.

Guernsey (rare). Alderney. Sark. France.

## 5. P. MINUS Huds.

Native. Damp places. Extinct. July to September. St. Laurence Marsh. J. Piquet, sp. 1852!

France.

# 6. P. Persicaria L.

Native. Fields and waste places. Frequent. July to October.

Guernsey. Alderney. Sark. France.

# 7. P. LAPATHIFOLIUM L.

Native or colonist. Cultivated ground. Frequent. July to August.

St. Helier's. St. Ouen's Bay. Fliquet Bay. La Rocque. Samarès. St. Laurence Valley.

Guernsey. Alderney. Sark. France.

## 8. P. AMPHIBIUM L.

Native. Ponds, and fields on a clay soil. Frequent. July, August.

The floating form is abundant in the reservoirs in the Waterworks Valley. The terrestrial form (var. TERRESTRE Leers) is not uncommon on stiff soils, and a most troublesome weed where it occurs.

Guernsey. Alderney. France.

3. Fagopyrum Mænch.

1. F. esculentum Maench. An occasional casual.

#### Chenopodiaceæ.

1. BETA L.

1. B. MARITIMA L.

Native. Abundant all round the coast. June to September. Guernsey. Alderney. Sark. France.

2. Chenopodium L.

1. C. POLYSPERMUM L.

Native. Cultivated fields and waste places. Rather common. July to October.

St. Ouen's. St. Peter's. St. Martin's. Gorey. Samarès. Guernsey. Sark. France.

The var. SPICATUM Moq. is by far the most common, as in France.

2. C. VULVARIA L. (C. OLIDUM Curt.).

Native. Waste places near the sea. Very rare. July to September.

Near Petit Port and St. Helier's. Bab. Mt. Orgueil. E. Duprey. St. Ouen's Pond, 1896. Grand Val. F. Piquet, 1870!

Guernsey (rare). Normandy (frequent). W. France (very common).

3. C. ALBUM L.

Native. Fields and waste places. Common. July to September.

Guernsey. Alderney. Sark. France.

Varies much, chiefly in respect of the mealiness and shape of the leaves and the density of the panicle. The forms C. VIRIDE L. and C. PAGANUM Reichb. are equally common with the type.

4. C. MURALE L.

Native. Fields and waste places. Abundant. July to November.

Guernsey. Alderney. Sark. France.

5. C. Bonus Henricus L.

Relic of former cultivation. Very rare.

St. Saviour's. Bab. "Mont-au-Prêtre: rare." J. Piquet.

3. ATRIPLEX L.

1. A. PATULA L.

Native. Roadsides and cultivated fields. Frequent. August to October.

Guernsey. Alderney. Sark. France.

2. A. HASTATA L.

Native. Fields, waste places, and sea-shores. Abundant. August to October.

Guernsey. Alderney. Sark. France.

Var. DELTOIDEA Bab. Similar situations. Common.

3. A. BABINGTONII Woods.

Native. Rough places on the shore. Not common. August to October.

Petit Port near the Corbière. Le Hocq. Pontac.

Guernsey. Alderney. Sark. France.

Distinguished by the fleshy character of the whole plant, the extraordinary development of the lateral offshoots at the expense of the main stem, and the enlarged, rhomboidal sepals.

4. A. FARINOSA DUM. (A. TORNABENI Tin. A. ARENARIA Woods.)

Native. Sandy shores. Local. August to September.

Plentiful in St. Ouen's Bay. George Town. Grouville. Pontac.

Guernsey. Alderney. Sark. France,

Said to be not quite the same as A. LACINIATA L.

5. A. PORTULACOIDES L. (OBIONE Gærtn.)

Formerly native, though rare: now extinct.

"Muddy sea-shores. Not common in Jersey." J. Piquet, sp. 1870! In his 1896 list he says, "St. Ouen's, rare." There are no muddy sea-shores in St. Ouen's. He has since informed me that the plant used to grow near La Collette, and that it was destroyed by the Harbour Works. In the "Flora Sarnica" "HALIMUS FORTUL COIDES Wallr." is said to have been "common." Possibly some confusion with the next species.

Guernsey. Alderney (?). France.

6. A. Halimus L.

Much used for hedges on the coast, as it will grow in almost pure sand. Grève d'Azette, St. Ouen's Bay, and elsewhere. It is used for the same purpose in Normandy. 4. SUÆDA Forsk.

1. S. MARITIMA Dum.

Native. Muddy sea-shore. Very rare. July to September.

Between Samarès and Le Hocq, abundant over a very small area in 1901. In *Mr. Piquet's* 1896 list "SALSOLA MARITIMA Dumort." is recorded for La Pulente, St. Ouen's Bay.

Frequent in Guernsey, where there are still salt marshes. France.

5. SALSOLA L.

## 1. S. KALI L.

Native. Sandy beaches. Locally abundant. July to September.

St. Aubin's Bay. St. Ouen's Bay. Grouville. Pontac. Guernsey. Alderney. Sark. France.

### Amarantaceæ.

1. Amarantus (" Amaranthus") L.

1. A. retroflexus L.

Introduced. Cultivated fields. Local. July to September. "On town sweepings and other refuse. St. Clement's."

J. Piquet, sp. 1873. Now common in potato-fields at Samarès, Le Hocq, and Pontac.

Normandy (rare and introduced). W. France.

2. A. Blitum L.

Introduced. Cultivated fields and waste places. Not common. August to October.

Samarès. Le Hocq. Millbrook. Near St. Saviour's Church.

Normandy (rare and introduced). W. France (rare north of the Loire).

#### Portulacaceæ.

1. MONTIA L.

1. M. FONTANA L.

Native. Damp, turfy places. Common. February to June. Guernsey. Alderney. Sark. France.

Var. RIVULARIS (Gmel.). Streamlets and springs. Not common. Flowers later.

Bonne Nuit Bay. Portelet Bay. Grouville.

2. Portulaca L.

1. P. oleracea L.

Introduced. Sandy soils. Rare. June to September. Garden weed in St. Helier's. Roadside at Pontac. Sandy fields in St. Aubin's Bay. J. Piquet. Normandy (rare). Common in W. France.

#### Caryophyllaceæ.

1. STELLARIA L.

1. S. MEDIA Cyr.

Native. Ubiquitous and abundant. All the year round.

Var. BORÆANA (Jord.) = S. PALLIDA Dumort. Open, sandy fields. Common.

Var. NEGLECTA Weihe = S. MAJOR Koch. Hedges and sheltered places. Not common. The Quenvais.

2. S. HOLOSTEA L.

Native. Hedges and on the cliffs. Common. February to May.

France. Not found in the other Islands.

## 3. S. GRAMINEA L.

Native. Dry banks and hillsides. Frequent. May to July. Near St. Helier's. Portelet Bay. Bouley Bay. Plémont. Guernsey (very rare). Sark. C. P. Hurst. France.

4. S. ULIGINOSA MURR.

Native. Wet places. Common. April to August. Guernsey. Sark. France.

### 2. Cerastium L.

1. C. TETRANDRUM Curtis.

Native. Sandy places. Common. February to May.

Guernsey. Alderney. Sark. France.

C. ATRORUBENS Bab. was nothing but a form of this plant, as Babington himself afterwards allowed.

2. C. Semidecandrum L.

Native. Sandy places. Very common. March to May. Guernsey. Alderney. Sark. France.

3. C. GLOMERATUM Thuill.

Native. Waste places, dry fields, &c. Common. March to May.

Guernsey. Alderney. Sark. France.

4. C. TRIVIALE Link. Native. Fields, hedges, and waste places. Common. March to October. Guernsey. Alderney, Sark, France, 3. MENCHIA Ehrh. 1. M. ERECTA Ehrh. (CERASTIUM QUATERNELLUM Fenzl.). Native. Short turf on cliffs and hillsides. Common. March to May. Guernsey. Herm. Alderney (rare). Sark. France. 4. SAGINA LL 1. S. MARITIMA DOD. Native. Rocks and waste places on the coast. Common. April to August. Guernsey. Alderney. Sark. France. 2. S. APETALA L. Native. Walls and dry places. Common. May, June. Guernsey. Alderney. Sark. France. 3. S. CILIATA Fr. Native. Sandy fields, walls, &c. Not common. May, June. La Moie, St. Peter's Valley, St. Ouen's Bay, St. Catharine's and Gorey. Mr. J. W. White. Guernsev. Sark. Mr. J. W. White. France. 4. S. procumbens L. Native. Banks and waste places. Common. April to October. Guernsey. Alderney. Sark. France. 5. S. SUBULATA Presl. Native. Rocky and heathy places on the coast. Frequent. May to August. The Corbière. Portelet Bay. St. Brelade's Bay. Grosnez. Grève de Lecq. Creux de Vis. Guernsey. Alderney. Sark. Normandy (rare). W. France. 6. S. Nodosa Fenzl. Native. Damp places. Very rare : ? extinct. July, August. The Quenvais. Bab. Mr. Piquet used to find it years ago in the sandy hollows between St. Ouen's Pond and the sea, most of which have been filled up.

Guernsey. Normandy. W. France (local).

5. Alsine Scop.

 A. PEPLOIDES Wahl. (ARENARIA L., HONKENVA Ehrh.). Native. Sandy beaches. Locally abundant. May to July. St. Aubin's Bay. St. Brelade's Bay. St. Ouen's Bay. Grève de Lecq. Pontac. Guernsey. Alderney. Sark. France.

6. ARENARIA L.

1. A. SERPYLLIFOLIA L.

Native. Walls and dry places. Common. May to July. Guernsey. Alderney. France.

Var. LEPTOCLADOS (Guss.). Common in sandy fields. Sometimes densely glandular.

Var. LLOYDII (Jord.). Sands of the Quenvais.

## 7. Mœhringia L.

1. M. TRINERVIA Clairy, (ARENARIA L.).

Native. Shady woods and hedge-banks. Common. May, June.

Not in the other Islands. France.

8. Spergula L.

1. S. ARVENSIS L.

Native. Cultivated fields, and in the short turf all round the coast. Common. April to September.

The Jersey plant is S. VULGARIS Bornn., with papillose, unwinged seeds. A dwarf, prostrate, early flowering form is common on Grouville Common.

Guernsey. Alderney. Sark. France.

9. Spergularia Pers.

1. S. RUBRA PErs. (LEPIGONUM Fr. BUDA Dum.) Native. Sandy fields and dry, waste places. Frequent April onwards.

St. Helier's. St. Brelade's. St. Peter's. Grève de Lecq. Sorel Point. Crabbé.

Guernsey. Alderney (rare). Sark. France.

2. S. NEGLECTA Kindb. (fide Arthur Bennett).

Native. Sandy shores. ? Very local.

Abundant in sandy waste ground near the sea at First Tower. Guernsey (LEPIGONUM SALINUM Fr.). France (ditto).

### 3. S. RUPESTRIS Lebel.

Native. Rocks and banks all round the coast, locally abundant: often within reach of the spray.

La Moie. L'Etac. Vinchelez. Anne Port, &c. Abundant on the Écrèhos Rocks.

Guernsey. Alderney. Sark. France. S. and W. Europe.

### 10. Polycarpon Loefl.

#### 1. P. TETRAPHYLLUM I.

Native. Sandy fields and dry places. Common. March to August.

Two forms—(a) Paniele dense, foliage reddish or yellowish : dry situations exposed to sun and wind. (b) Paniele lax, foliage green : cultivated ground, especially where protected by the crop.

Guernsey. Herm. Alderney. Sark. France.

11. HERNIARIA L.

1. H. GLABRA L.

Native. Sandy places on the coast. Very rare. June to September.

St. Aubin's Bay, between Bel Royal and Beaumont, where it is probably doomed. East end of St. Brelade's Bay, at the foot of the road leading up to Portelet.

Guernsey (frequent). Alderney. Normandy (local). W. France.

Babington's variety SUBCILIATA is absurd. "Foliis plus minusve ciliatis" is the whole of the description.

12. Scleranthus L.

1. S. ANNUUS L.

e

Native. Sandy fields and dry hillsides. Local. April to August.

West Mount. St. Brelade's. St. Peter's. Gorey. Guernsey. Alderney. Sark. France.

#### 13. Agrostemma L.

 A. GITHAGO L. (LYCHNIS SCOP. GITHAGO SEGETUM Desf.) Colonist. Cultivated fields. Rare. June to August. Samarès. St. Ouen's Bay. Portelet. La Moie. Five Oaks. Rare in Guernsey, Alderney, and Sark. France.

#### 14. SILENE L.

1. S. CUCUBALUS Wibel, (S. INFLATA Sm.) Native. Sandy roadsides. Rare. May to July. La Rocque. Mt. Orgueil. St. Aubin's. Rev. H. J. Sumner ! Mont Cochon. F. Piquet ! Guernsey (very rare). Alderney (rather common). France. 2. S. MARITIMA With. Native, Abundant in all kinds of situations. March to October. Guernsev. Aldernev. Sark. France. 3. S. CONICA L. Native. Sand-dunes. Locally abundant. May to June. St. Aubin's Bay. St. Ouen's Bay. The Quenvais. Gorey Common. Guernsey. Alderney. France. 4. S. GALLICA L. Native. Sandy fields and roadsides. Common. May to September. Guernsey. Alderney. Sark. France. Var. QUINQUEVULNERA (L.). Probably a colonist. Similar situations, but rare. West Mount. St. Aubin's. Guernsey (rare). Lloyd only gives one station in W. France (near Morlaix in Brittany). A handsome form with large pink petals (var. ROSEA Melvill), is abundant near Grosnez Castle. 5. S. NUTANS L. Native. Cliffs on the north and west. Locally abundant. May to July. St. Brelade's Bay. The Quenvais. St. Ouen's, St. Peter's, Sorel Point. Grève de Lecq. Herm. Alderney. Normandy, W. France. 15. Lychnis L 1. L. Flos-cuculi L. Native. Damp meadows. Common. May to July. Guernsey. Alderney, France,

# 16. Melandryum Roehl,

1. M. SILVESTRE Roehl. (LACHNIS DIURNA Sibth.) Native. Hedges. Abundant. May to August. Guernsey. Alderney (rare). Sark. France. 2. M. PRATENSE Roehl. (LYCHNIS VESPERTINA Sibth.) Native. Cultivated fields and hedgerows. Frequent. May

to September.

Evenly distributed, but not very common anywhere.

Guernsey (? casual). Alderney (common). Sark. France.

# 17. DIANTHUS L.

1. D. prolifer L.

Native. Sandy places. Local. June to August. Abundant on the Quenvais and in St. Ouen's Bay. Normandy, W. France.

2. D. GALLICUS Pers. (D. ARENARIUS Thor.)

Native ? Sandy places. Very rare. July.

St. Ouen's Bay, J. Piquet, July, 1897.

First recorded as D. CESIUS Sm.: subsequently determined by Mr. F. N. Williams (Journ. Bot., 1898, p. 493). A W. European maritime species, from Spain to Quimper (Grenier and Godron). There is a large patch, about 20 yards square, with a few isolated outlying plants. a long way from the nearest house. The locality seems beyond suspicion, but the vast sandy tract of St. Ouen's Bay is so full of casuals and naturalised aliens, most of them probably introduced at some time or other with lucerne seed from the Continent, that it is difficult to be sure.

18. Saponaria L.

- S. officinalis L. Garden escape. Hedgerow near Five Oaks. St. Aubin's Bay. J. Piquet.
- S. Vaccaria L. A scarce casual. Five Oaks Brick Kilns (1898). St. Ouen's Bay, J. Piquet.

### Nymphæaceæ.

1. Nymphæa L.

**1**. N. alba L.

In the Old Reservoir in the Waterworks Valley. No doubt planted there.

#### Ranunculaceæ.

### 1. Caltha L.

1. C. palustris L.

Mr. J. Piquet informs me that he is responsible for the introduction of this plant into Jersey. A clump, planted by

him in Samarès Marsh, flowered in 1900. The locality given in his list is " wet meadow at Trinity."

## 2. Delphinium L.

1. D. Consolida L.

"Near the first Martello Tower to the west of St. Helier." Bab.

"Sandy places in St. Ouen's Bay and on Gorey Common."

J. Piquet.

Casual or garden outcast.

### 3. Clematis L.

1. C. Vitalba L.

Not native in any of the Channel Islands. Occasionally planted in gardens. "Hedge opposite Mt. Orgueil Castle." *J. Piqu't*.

4. RANUNCULUS L.

1. R. Peltatus Schrank.

Native. Ditches and ponds. Local. May, June.

Waterworks Valley. La Moie Marsh. Pond at the east side of St. Brelade's Bay.

Guernsey. France.

2. R. BAUDOTH Godr.

Native. Still pools near the sea. Rare. May, June.

Quarry pool at Portelet Bay.

Guernsey. Frequent in brackish water on the French coast.

3. R. DROUETII Godr.

Native. Ponds and ditches. Local. April to June.

Ditches in Samarès Meadow. St. Ouen's Pond. Ditches in St. Ouen's Bay.

Guernsey. Normandy (not common). Absent from W. France according to Lloyd and Grenier and Godron. R. TRICHOPHYLLUS Chaix, is recorded by Mr. Marquand for Guernsey, Alderney, and Sark, and is common in France The two plants are hardly distinguishable.

Mr. Arthur Bennett has confirmed the naming of the three species.

4. R. HEDERACEUS L.

Native. Wet ditches. Not common. April to June.

St. Ouen's Pond. Portelet Bay. La Moie. Samarès Meadows.

Guernsey, Alderney, Sark, Normandy, W. France.

- 5. R. SCELERATUS L.
  - Native. Damp places. Rare.

"Bogs near Grouville and Grève d'Azette." Bab. Samarès Marsh. Piquet, sp. ! 1870. St. Ouen's Pond. Guernsev (rare). Normandy. W. France.

6. R. OPHIOGLOSSIFOLIUS Vill.

Extinct. Once native in St. Peter's Marsh. J. Piquet, sp. 1869! Mr. Arthur Bennett has a sp. dated 1872. Mr. J. C. Melvill failed to find it in 1876.

A plant of S. and W. Europe, with one station (S. Hants) on the north of the Channel. Very rare in Normandy.

7. R. FLAMMULA L.

Native. Damp meadows. Abundant and variable. May to August.

Guernsey. Alderney. Sark. France.

8. R. Acris L.

Native. Low-lying meadows. Common. May to July.

Guernsey. Alderney. Sark. France.

9. R. Repens L.

Native. Fields. roadsides, banks, &c. Common. April onwards.

Guernsey. Alderney. Sark. France.

#### 10. R. BULBOSUS L.

Native. More local than the preceding. April onwards. Abundant on the Quenvais, and in dry sandy fields. Guernsey. Alderney. Sark. France.

 R. HIRSUTUS Curt. (R. SARDOUS Crantz. R. PHILONOTIS Ehrh.) Native. Damp places. Frequent. May to August. St. Ouen's Bay. St. Peter's. Samarès. St. Catharine's Bay. &c.

Guernsey, Sark. Common in France.

12. R. parviflorus L.

Colonist? Sandy and dry places. Rare. April onwards.

"Near the windmill by St. Peter's Marsh.' Bab. "Gravelly paths at Noirmont. Rare." J. Piquet. Portelet Bay. George Town. Mr. J. W. White. Val des Vaux. F. Piquet. Guernsey (rare). Alderney. Sark. Herm. Local in Normandy and Brittany.

13. R. CHÆROPHYLLUS L. Native. Dry banks. Very rare. April, May. Hillside above St. Aubin's.

W. Europe and the Mediterranean Region, with Jersey and Flanders as the north limit. Normandy (rare).

### 14. R. FICARIA L.

Native. Banks and hedges. Abundant. February to May. Guernsey. Alderney. Sark. France.

#### Papaveraceæ.

1. PAPAVER L.

### 1. P. Rhæas L.

Native. Cultivated fields and waste places. Frequent. Var. STRIGOSUM (Boenn.) Samarès.

Guernsey, Alderney, Sark, France.

Guernsey, Alderney, Sark, Fr

# 2. P. dubium L.

Native. Cultivated fields, &c. Frequent.

Only P. LAMOTTEI BOR. P. LECOQUII Lamotte has not been found in the Channel Islands, nor does it occur in Normandy.

Guernsey. Alderney. Sark. France.

### 3. P. Argemone L.

Colonist? Fields and roadsides. Not common.

La Moie. St. Brelade's. L'Etac. St. Aubin's Bay. F. Piquer, 1869! Pont Marquet. Normandy. W. France.

Normandy. W. France

# 4. P. HYBRIDUM L.

Colonist? Fields and roadsides. Rare.

Near St. Peter's Barracks. Bab. Ibid. J. Piquet, 1871! St. Ouen's Bay. J. Piquet, 1896.

Guernsey (rare). Alderney (frequent). Normandy. W. France.

2. GLAUCIUM L.

 G. FLAVUM Crantz. (G. LUTEUM Scop.) Native. Sandy shores. Very local. St. Ouen's Bay. Grouville Bay. Guernsey. Alderney. Herm. Normandy. W. France.

3. Chelidonium L.

#### **1**. C. majus L.

More or less naturalised near houses, occasionally. April to September.

Longueville Manor. Bel Royal. Grouville. Samarès. Guernsey. Common in France.

4. Corydalis DC.

# 1. C. CLAVICULATA DC.

Native. Hillsides, &c. Rare. June to August.

La Crête Point, St. Catharine's Bay. S. Guiton, 1900!

Normandy. W. France. A plant of Western and West-Central Europe.

5. FUMARIA L.

1. F. BORÆI Jord.

Native. Hedges and fields. Abundant. From March onwards.

A handsome, strong growing plant (normally), with showy flowers and bright green foliage: fruiting pedicels erect or sub-erect, never recurved as in the closely allied F. PALLIDI-FLORA Jord., which occurs in Guernsey and Alderney, but not in Jersey.

Guernsey. Alderney. Sark. Common in W. France (Lloyd). 2. F. MURALIS Sonder ?

2. r. MURALIS Sonder ? Nativo Hadrag and falde

Native. Hedges and fields. Not common. May to August. St. Catharine's. George Town. "Cornfields and gardens." J. Piquet, sp. 1868.

Named by Mr. Arthur Bennett, with some hesitation.

3. F. OFFICINALIS L.

Colonist? Cultivated fields. Frequent, and apparently spreading. Mr. Piquet tells me that it used to be rare. From April onwards.

Guernsey. Alderney. Herm. France.

### Cruciferæ.

### 1. TEESDALIA R. Br.

1. T. NUDICAULIS R. Br.

Native. Dry banks and hillsides. Common March to May. Guernsey. Alderney. Sark. France.

### 2. Lepidium L.

# 1. L. SMITHII Hooker. (L. HIRTUM Sm.) Native. Walls and dry banks. Very common. April to June.

Guernsey. Alderney (rare). Sark. Normandy (rare). W. France. Var. CANESCENS Gren. and Godr. is the prevalent, if not the only form, as in Normandy and Brittany.

2. L. Draba L.

Long naturalised in Jersey (a specimen of Mr. Piquet's is dated 1869). Dry fields. Local. May to July. Abundant beside the line near Bel Royal. St. Aubin's. George Town. Five Oaks. Le Hocq. Guernsey. Alderney. France. S.E. Europe and W. Asia (Hooker), introduced in many places elsewhere.

3. L. ruderale L.

A scarce casual. Rubbish heap at Samarès, 1899.

4. L. sativum L. Garden escape.

3. CORONOPUS Gærtn.

1. C. DIDYMUS SIN. (SENEBIERA Pers.)

Colonist. Sandy fields, roadsides, &c. An abundant weed. April onwards.

Guernsey. Alderney. Normandy (rare, except at Cherbourg). W. France.

A native of Temperate S. America (Hooker).

2. C. RUELLII All. (SENEBIERA CORONOPUS Poiret).

Colonist? Fields and waste places. Not common. May to September.

St. Aubin's Bay. Samarès. Le Hocq. Pontac. Guernsey. Alderney. Sark. France.

4. Iberis L.

1. I. amara L. Casual. J. Piquel, sp. 1866!

5. Thlaspi L.

1. T. ARVENSE L.

Colonist, Cultivated fields. Rather rare, May, June, St. Helier's, Samarès, Plémont, St. Peter's, J. Piquet, Guernsey, Herm, Sark, France,

6. Cochlearia L.

1. C. DANICA L.

Native. Rocks, sand-dunes, roadsides and banks. Abundant. The first plant in the year to flower. January, onwards. Guernsey. Alderney. Sark. France.

In warm, sandy places, dense patches of a dwarf form of this plant, 1 or 2 inches high, may be seen in the early spring, the offspring of parent plants which have fruited abundantly in the preceding summer. Other plants which produce similar colonies of dwarf seedlings are MYOSOTIS COLLINA, SENECIO VULGARIS VAR. RADIATUS and BROMUS MOLLIS.

2. C. Armoracia L.

More or less naturalised near houses.

#### 7. Alliaria DC.

1. A. OFFICINALIS Andrz. (SISYMBRIUM ALLIARIA Scop.)

Native. Hedges. Local and rare. April to June.

Grand Val. F. Piquet, sp. 1870! Le Boulivot, St. Clement's. Gorey.

Guernsey. Alderney. Sark. France.

8. Sisymbrium L.

 S. THALLANUM J. Gay. Native. Fields and dry banks. Very common. March to July. Guernsey. Herm. Sark. France.

2. S. OFFICINALE Scop.

Native. Hedges and dry, waste places. Very common. April to October.

Guernsey. Alderney. Sark. France.

- S. Sophia L. Casual. St. Ouen's Bay. J. Piquet, 1898.
- 4. S. pannonicum Jacq. A rare casual. L'Etac, 1900.

9. Cakile L.

1. C. MARITIMA Scop.

Native. Sandy beaches. Frequent. May to July. St. Aubin's Bay. St. Ouen's Bay. Gorey. Pontac. Guernsey. Alderney. Sark. France.

#### 10. Sinapis L.

## 1. S. NIGRA L. (BRASSICA NIGRA Koch). Native. Fields and waste places near the coast. Local. June, July.

Samarès Meadows. Abundant at Gorey. "St. Brelade, St. Helier, &c." Bab.

Guernsey (rare). Herm. Bab. Frequent on the French coast.

- S. ARVENSIS L. (BRASSICA SINAPIS VISIANI.) Colonist? Cultivated fields and waste places. Common. May to September.
   Current and South France.
  - Guernsey. Alderney. Sark. France.
- 3. S. alba L.

Occasionally sown in fields.

### 11. DIPLOTAXIS DC.

1. D. TENUIFOLIA DC.

Native. Sandy places on the coast. Locally abundant. April to November.

The Quenvais. St. Ouen's Bay. La Rocque. Grève d'Azette.

Guernsey. Alderney (abundant). France.

2. D. MURALIS DC.

Native. Roadsides, fields and waste places. All the year round.

Guernsey. Alderney. France.

12. ERUCASTRUM C. Presl.

 E. INCANUM Koch. (BRASSICA ADPRESSA BOISS. SINAPIS INCANA L.) Native. Sandy places in the west. Local. June to August. The Quenvais. St. Peter's. L'Etac. Guernsey (rare). Alderney. Normandy (rare). W. France

(local).

13. BRASSICA L.

1. B. CHEIRANTHUS Villars.

Native. Sandy fields. Frequent in the west of the Island. May to July.

West Mount. The Quenvais. St. Ouen's Bay. Near Grosnez Castle.

Doubtfully indigenous in Guernsey, Alderney, and Sark. A beautiful species of S. and W. Europe, as far north as Cornwall (Hooker). Frequent in Normandy, common in W. France.

B. Rapa L. and B. Napus L. are of course escapes from cultivation.

### 14. RHAPHANUS L.

1. R. RHAPHANISTRUM L.

Colonist. Cultivated fields. Very rare. May to September. La Pulente, St. Ouen's Bay.

Guernsey. Alderney. Sark. France.

2. R. maritimus Sm.

Native. Sandy fields on the coast. Common. June to August.

Abundant and very large in St. Ouen's Bay. Grouville. Pontac. Grève d'Azette.

Guernsey. Alderney. Sark. Normandy (rare). A W. European species ranging from Scotland to Spain: not east of Holland.

### 15. CRAMBE L.

## 1. C. MARITIMA L.

Native. Shingly sea-shores. Very rare. June, July.

St. Ouen's Bay. J. Piquet. In 1902 there was one fine plant on the shingle near the Pond, which may possibly have been native, but there were rubbish heaps, brought from a distance, not far off.

Guernsey, Alderney, Normandy, W. France, but always a rare plant. Coasts of Europe from Finland to the Bay of Biscay, reappearing in the Black Sea.

### 16. BARBARÆA R. Br.

## 1. B. VULGARIS R. Br.

Native. Hedges and waste places. Not very common. May, June.

St. Helier's. Le Hocq. The Quenvais. St. Peter's. Near St. John's Church. Grouville.

Guernsey (rare). Sark. C. P. Hurst. Normandy. W. France.

2. B. INTERMEDIA Bor.

Native. Damp meadows. Very rare. May, June. Damp field near St. Brelade's Church, 1897.

Damp neid near St. Breiade's Church, 1897

Guernsey (rare). Normandy. W. France.

# 3. B. præcox R. Br.

Escape from cultivation. Roadsides and waste places near houses,

St. Brelade's. St. Aubin's Bay. Le Hocq. Gorey Common. St. Peter's Valley.

Guernsey (rare). Not native in Normandy.

17. NASTURTIUM L.

1. N. OFFICINALE R. Br.

Native. Wet places. Not very common. May to July. Guernsey. Alderney. Sark. France.

A robust form with narrow leaflets occurs in Samarès Canal, but will hardly do for N. SHFOLIUM Reich. Has anything like the latter ever been found in Britain? Reichenbach's description is—"giganteum, 12–18 pedale, caulis pollice crassior acutangulus, fistula pollicem recipiente, ex axillis radicans, folia SH LATIFOLII." In Lyell's "Principles of Geology," ii. 453, it is stated that the Watercress, introduced at Christchurch, New Zealand, choked the streams and developed stems 12 feet long and  $\frac{3}{4}$  inch thick.

2. N. SILVESTRE R. Br.

Native. Sides of streams. Very rare. June to August.

Stream leading from the Town Mill Pond. J. Piquet, sp. 1900!

Guernsey (rare). France.

3. N. PALUSTRE DC. (RORIPA NASTURTIOIDES Spach.)

Native. Marshy places. Very rare, ? extinct. June to September.

There is a specimen in *Mr. J. Piquet's* herbarium from St. Laurence's Marsh, 1854!

Frequent in France.

18. CARDAMINE L.

1. C. pratensis L.

Native. Damp meadows. Common. March to May. Guernsey. Sark. France.

Var. FRAGILIS Lloyd. "A later flowering form. Upper leaves with narrow, linear leaflets. Flowers white." La Moie Common. May.

2. C. HIRSUTA L.

Native. Dry places. Abundant. February to May.

Guernsey. Alderney. Sark. France.

A large-flowered form is common on the sands of the Quenvais.

3. C. FLEXUOSA With. (C. SILVATICA Link.)

Native. Damp, shady places. Not very common. April, May.

Valley des Vaux. St. Peter's Valley. Rozel. Bonne Nuit Bay. Waterworks Valley.

Guernsey. Alderney. Sark. Normandy. W. France.

## 19. HUTCHINSIA R. Br.

1. H. PETRÆA R. Br.

Native. Sand-dunes in the south-west. February to April. Common on the Quenvais. St. Brelade's Bay. Normandy (rare). W. France.

# 20. CAPSELLA Medik.

1. C. BURSA-PASTORIS Moench.

Native. An abundant weed. All the year round. Guernsey. Alderney. Sark. France. Very variable in the cutting of the leaves.

21. DRABA L. (Sect. EROPHILA).

 D. VERNA L. (EROPHILA VULGARIS DC.) Native, Wall-tops, sandy fields, dry banks. Abundant. January to May. Guernsey. Alderney. France. Almost entirely short-fruited forms, presumably referable to E. PRÆCOX DC. A long-podded plant is to be found in sandy fields on the shore at La Rocque.

22. Cheiranthus L.

1. C. Cheiri L.

Denizen? Old walls. Rare. April to June.

St. Laurence Valley. Bab. Walls of Mt. Orgueil Castle.

Native in Central and N. Europe (Hooker). Corbière regards it as native in Normandy.

23. Lobularia Desv.

1. L. maritima Desv. (Alyssum L. Koniga R. Br.)

Naturalised alien. Sandy places on the shore. March to June.

Between First Tower and Millbrook. St. Brelade's Bay.

A littoral plant of S. Europe. Recorded for Guernsey and Alderney, but not for Normandy or W. France.

24. Berteroa DC.

 B. incana D('. (Alyssum L.) A scarce casual. Occurred on ballast at Samarès in 1901.

25. MATTHIOLA R. Br.

1. M. SINUATA R. Br.

Native. Sandy shores. Local. May to July.

Plentiful in some parts of St. Ouen's Bay. Sparingly on the Quenvais. Babington records it for "St. Aubin's and other bays" as well, where it has apparently become extinct. Guernsey, Normandy, and Brittany, but rare. S. and W. Europe, as far north as the S. of Ireland, Cornwall, and Devon.

26. Bunias L.

1. B. Erucago L.

A scarce casual. West Mount. 1900.

27. Conringia Link.

1. C. orientalis Andrz. (Erysimum orientale R. Br. E. perfoliatum Cr.)

Casual. St. Ouen's Bay. J. Piquet.

#### Resedaceæ.

1. Reseda L.

1. R. LUTEA L.

Native. Sandy fields. Rare. June to August.

St. Helier. Bab. Near L'Etac. S. end of St. Ouen's Bay.

Guernsey (casual). Alderney? Common in France.

2. R. LUTEOLA L.

Native. Roadsides, fields, and waste places. Common. June to August.

Guernsey. Alderney (rare). Sark. France.

3. R. alba L.

Casual. St. Helier's. S. Guiton, sp. 1900 !

#### Droseraceæ.

1. DROSERA L.

1. D. ROTUNDIFOLIA L.

Native. Boggy places on the cliffs. Rare. July, August.

Between La Moie and La Corbière. *Bab.* Bouley Bay. Bonne Nuit Bay. Giffard Bay. Guernsey? France.

#### Crassulaceæ.

1. Sedum L.

1. S. ANGLICUM Huds.

Native. Dry banks and sandy places. Common. Junc, July.

Guernsey. Alderney. Sark. France.

2. S. ACRE L.

Native. Walls, banks, and sandy fields. Common. June, July.

Guernsey. Alderney. France.

3. S. REFLEXUM L.

Walls and dry, rocky banks. Much cultivated on walls in gardens and often an obvious escape, but in one or two places it looks as if it were native, as on the rocks beside the road at the top of the hill leading up from First Tower.

Guernsey (rare). Normandy. W. France.

4. S. album L.

Alien. Garden-walls in the Grand Val and at Le Hocq.

2. Sempervivum L.

1. S. tectorum L.

"Naturalised." Bab. "Walls and house-tops, rare." J. Piquet. I have not seen it.

3. COTYLEDON L.

1. C. Umbilicus L.

Native. Rocks, banks, and walls. Abundant. May to July.

Abundant also in all the other Islands. W. and S. Europe.

4. CRASSULA L. (Sect. TILLEA).

1. C. TILLÆA Lester. (TILLÆA MUSCOSA L.)

Native. Sandy places where water has stood. Local. March to July.

West Mount. Portelet Bay. St. Brelade's Bay. The Corbière. Grosnez Castle. Grouville Common. Guernsev. Sark. France. W. Europe. Since Engler and Prantl merged the Linnæan genus TILLÆA into CRASSULA in 1890, no new list of CRASSULA has been published. The specific name MUSCOSA is not available, as there is already an African CRASSULA MUSCOSA L. I am therefore obliged reluctantly to suggest a new specific name. Bentham and Hooker describe TILLÆA as "genus vix a Crassula distinguendum."

#### Saxifragaceæ.

1. SAXIFRAGA L.

1. S. TRIDACTYLITES L.

Native. Abundant in sandy fields on the coast, frequent on walls and banks. March to June. Guernsey. Alderney. France.

2. Chrysosplenium L.

1. C. oppositifolium L.

Native. Wet, shady places. Local. April, May.

Waterworks Valley. Bonne Nuit Bay (in three places). La Saline, St. John's. Grand Val. Guernsey. France.

#### Rosaceæ.

1. Spiræa L.

1. S. ULMARIA L.

Native. Damp meadows. Very rare. June to August.

Meadow in the upper part of Valley des Vaux. J. Piquet, sp. ?!

Common in France.

The Jersey plant is S. DENUDATA Presl.

2. PIRUS ("PYRUS") L.

1. P. Malus L.

Native. Bushy places on the coast. Extremely rare. April, May.

A single bush on the cliffs at Crabbé, 1901. Cliff at La Collette, J. Piquet, where it was destroyed, he tells me, in company with ATRIPLEX PORTULACOIDES, by work in connection with the Harbour.

Guernsey (locally common). Alderney (very rate). Sark. France.

2. P. COMMUNIS L.

Native. Cliffs on the coast. Extremely rare. April to May. Behind La Cotte Quarries at the Ouesnet, St. Brelade's. J. Piquet. Not there now. One bush on the cliffs at Crabbé, 1901.

Guernsey (?). Sark (one tree). Frequent in Normandy and W. France.

3. Mespilus L.

1. M. OXYACANTHOIDES DC. (CRATÆGUS OXYACANTHA L.)

Native on hills ides and cliffs. Much planted in hedges. April, May.

Guernsey. Alderney. Sark. France.

Var. MONOGYNA (Jacq.), which is by far the most common form in Normandy and W. France.

2. M. germanica L.

Denizen. Hedges. Rare. May.

Naturalised in hedges at Rozel and in St. Saviour's Valley.

Guernsey (rare). France.

"Truly wild in the upper part of St. Saviour's Valley and near St. Catherine's." *Bab.* But Hooker regards it as a native of Greece, Asia Minor, and Persia. The French botanists do not seem to suspect it.

## 4. Rubus L.

The following records of the Jersey RUBI are taken from a paper by the Rev. W. Moyle Rogers in *Journ. Bot.*, 1898, p. 85ff:—

1. RUBUS AFFINIS, W. and N., var. BRIGGSIANUS Rogers. Near the Waterworks Valley.

2. R. INCURVATUS Bab.

St. Aubin's Bay.

3. R. RHAMNIFOLIUS W. and N.

Rozel. Pont Marquet.

4. R. PULCHERRIMUS Neum.

Trinity Hill. Waterworks Valley.

5. R. DUMNONIENSIS Bab.

One of the most frequent brambles, especially abundant at Gorey Bay.

Val des Vaux. Waterworks Valley. Pont Marquet.

6. R. ARGENTATUS P. J. Muell. Fauvic. Waterworks Valley. Pont Marquet. Abundant in places. 7. R. RUSTICANUS Merc. Very common. 8. R. MACROPHYLLUS W. and N. Bouley Bay. 9. R. QUESTIERII Lefv. and Muell. Val des Vaux. 10. R. Sprengelii Weihe. Anne Port. Bouley Bay. 11. R. MICANS Gren, and Godr. Anne Port. Gorev. 12. R. LEUCOSTACHYS Schleich. Abundant. Var. ANGUSTIFOLIUS Rogers. Pont Marquet. Anne Port. Rozel. 13. R. ADENANTHUS Boul. and Gillot. Gorev Bay. 14. R. BORÆANUS Genev. General. 15. R. BORRERI Bell Salt. Bouley Bay. 16. R. RADULA Weihe, var. ANGLICANUS Rogers. In good quantity. 17. R. DUMETORUM W. and N., var. TUBERCULATUS Bab. Between Les Marais Station and Fauvic. 18. R. CORVLIFOLIUS Sm. Gorey. Anne Port. Grosnez. Var. SUBLUSTRIS (Lees). Bouley Bay. Var. CYCLOPHYLLUS Lindeb. Bouley Bay. 19. R. BALFOURIANUS Blox. Head of the Val des Vaux. 20. R. CESIUS L. Les Marais. The Corbière. 5. FRAGARIA L

1. F. VESCA L.

Native. Hedge-banks in the interior. Frequent. April to June Guernsey (very rare). Normandy. W. France.

6. POTENTILLA L.

- 1. P. FRAGARIASTRUM L. Native. Dry hedge-banks. Common March to May. Guernsey. Alderney. Sark. France. 2. P. SILVESTRIS Neck. (P. TORMENTILLA Stokes. TORMENTILLA ERECTA L.) Native. Hillsides and heathy places. Common. June to September. Guernsey. Alderney. Sark. France. 3. P. PROCUMBENS Sibth. (TORMENTILLA REPTANS L.) Native. Hedge-banks and hillsides. Not uncommon. June to September. Waterworks Valley. Grand Val. L'Etac. Canal du Squez. Bouley Bay. Guernsey. Sark. C. P. Hurst. Normandy (rare). W. France. Distinct enough from the preceding species. 4. P. REPTANS L. Native. Dry banks and waste places. Not very common. June to August. St. Helier's. St. Aubin's. St. Ouen's Bay. St. Martin's. Grouville. Bab. Guernsey. Alderney. Sark. France. 5. P. ANSERINA L. Native. Roadsides and waste places. Frequent. May to July. St. Helier's. St. Brelade's Bay, &c. Guernsey. Alderney. Sark. France. 6. P. ARGENTEA L. Native. Dry, rocky hillsides. Very rare. June, July. Dry bank beside the road between St. Aubin's and St. Peter's, 1902. Sunny rocks in a valley behind the Rifle Range at St. Peter's, 1899. "Near St. Clement's and near St. Brelade's." Bab. " Near St. Brelade's Church." Piquet. The last two localities not confirmed. Normandy. W. France. 7. GEUM L. 1. G. URBANUM L.
  - Native. Roadsides and hedges. Common. May to July. Guernsey. Alderney. Sark. France.

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8. Alchemilla L.

1. A. ARVENSIS L.

Native. Dry banks and sandy fields. Abundant. April to August.

Guernsey. Alderney. Sark. France.

9. Agrimonia L.

1. A. Eupatoria L.

Native. Dry hillsides. Rare. June to August. Gorey. Rozel.

Guernsey. Alderney. Sark. France.

A. ODORATA Mill. was recorded by Mr. Newbould from Jersey in Journ. Bot., 1886. Mr. Piquet records it from the Quenvais, and Mr. Marquand from Guernsey ("scarcely typical"). I have not seen it.

10. SANGUISORBA L.

1. S. MINOR Scop. (POTERIUM SANGUISORBA L.)

West Mount. Samarès Meadows. The Quenvais, near Don Bridge.

Guernsey. Herm. France.

In the Pflanzenfamilien the genus POTERIUM is limited to a single Mediterranean species (P. SPINOSUM).

2. S. muricatum (Poterium muricatum Spach.).

Casual. Recorded by *Mr. Piquet* from the Quenvais, near Don Bridge Station, with the preceding species.

11. Rosa L.

1. R. pimpinellifolia L.

Native. Dry, sandy fields and banks. Locally abundant. May, June.

St. Brelade's Bay. The Quenvais. St. Ouen's Bay.

Guernsey. Alderney (rare). Sark. France.

On a hot day the whole air is filled with its fragrance. Locally called "Sand Rose." The form R. SPINOSISSIMA L., with hispid or spinous calyx and peduncle, is the most common. The flowers are rarely tinged with pink.

2. R. Rubiginosa L.

Native. Hedges and rough, waste places. Rare. June.

Native. Dry fields. Rare. May to July.

Gorey. W. Moyle Rogers. Fiquet Bay (almost certainly native).

Normandy (not common). W. France (rare). Guernsey. W. Moyle Rogers, Alderney, Sark.

# 3. R. MICRANTHA Sm.

Native. Hedges and rough, bushy places. Not common. June.

Pont Marquet. W. Moyle Rogers. St. Brelade's. St. Aubin's.

Guernsey, Alderney, Sark, W. Moyle Rogers, Normandy, W. France.

4. R. CANINA L.

Native. Hedges, &c. Single bushes here and there. June. St. Catharine's Bay. St. Laurence. Rozel. Swiss Valley. Guernsey (rare). Alderney (rare). Sark. France.

Var. DUMALIS Bechst. is the prevailing, if not the only form.

12. PRUNUS L.

1. P. spinosa L.

Native on cliffs and hillsides; much planted in hedges. March to May.

Guernsey. Alderney. Sark. France.

Intermediates between the wild sloe and the cultivated plum are occasionally found in the hedges, varying in the size of the flowers and the presence or absence of spines. The BULLACE (P. INSTITIA L.) occurs in Guernsey, but not, apparently, in Jersey.

2. P. Cerasus L.

Denizen? Woods and hedges. Thinly distributed over the interior of the Island. April, May.

Guernsey (denizen). Normandy (denizen). W. France.

# Leguminosæ.

## 1. Genista L.

# 1. G. TINCTORIA L.

Native. Rough hillsides. Rare. July.

Cliff-side at Petit Port, St. John's. J. Piquet, sp. 1868! Plentiful at the base of the cliffs at Giffard Bay. Common in France. 2. Ulex L.

1. U. EUROPÆUS L.

Native. Cliffs and hillsides. Locally abundant. February to May.

Guernsey. Alderney. Sark. France.

2. U. GALLII Planch.

Native. Heathy hillsides. Frequent. August to November. The Corbière. St. Ouen's Bay. L'Etac. Cliffs in the north. Guernsey. Alderney. Normandy (local). Confined to Britain and W. France.

Both Bab. and Piquet give U. NANUS Sm. as "frequent," but I have never seen it in Jersey, and feel pretty sure that this is the plant to which they refer. It is recorded by Mr. Marquand for Guernsey and Alderney.

3. Cytisus L.

1. C. SCOPARIUS Link. (SAROTHAMNUS Koch. SPARTIUM L.) Native. Cliffs and hillsides. Locally abundant. April to June.

Guernsey. Alderney. Sark. France.

On the cliffs in the west, exposed to the prevalent S. and S.W. winds, the stem of the plant is often bent over just above the ground, so that the branches cling closely to the surface of the rocks. This is var. PROSTRATUS Bailey, which is nothing but a form, entirely due to situation. It has been noticed in Guernsey, Alderney, and Cornwall.

4. Ononis L.

1. O. REPENS L.

Native. Dry banks and sandy places. Frequent, July, August,

St. Aubin's Bay. The Quenvais. Grouville Common. La Rocque.

Guernsey, Alderney, Sark, France,

Only var. INERMIS Lange, quite devoid of spines.

5. TRIGONELLA L.

 T. ORNITHOPODIOIDES DC. (T. PURPURASCENS Lam.) Native. Sandy ground. Frequent. May, June. St. Aubin's Bay. Portelet Bay. St. Brelade's. Grosnez. Mt. Orgueil. Guernsey. Alderney. Sark. Normandy (rather rare). W. France. W. Europe as far north as Fifeshire.

6. MEDICAGO L.

1. M. sativa L.

Denizen. Much sown in Jersey for more than a century, and now thoroughly naturalised in sandy fields on the west and south coasts. June to August.

Indigenous in Asia Minor, Persia, Afghanistan, &c. (De Candolle).

2. M. LUPULINA L.

Native. Fields, roadsides, dry places. Common. May to September.

Guernsey. Alderney. France.

3. M. DENTICULATA Willd.

Native. Dry, sandy fields and banks. Not common. June to August.

West Mount. St. Aubin's Bay.

Guernsey (rare). Alderney. Normandy? W. France.

Var. APICULATA (Willd.) (Fruit smaller, spines shorter.)

Grouville Common. St. Aubin's Bay.

Guernsey. Alderney. Normandy. W. France.

A variable plant. The spines on the fruit of the West Mount plant were almost long enough for the S. European var. LAPPACEA (Desr.).

4. M. MACULATA Willd. (M. ARABICA All.)

Native. Fields and banks. Common. April to July. Guernsey. Alderney. France.

## 5. M. MINIMA Desr.

Native. Sandy fields. Very local. May to August.

St. Ouen's Bay, near the Pond (abundant). The Quenvais. Grouville Common.

Normandy (not common). W. France (frequent).

6. M. falcata L.

Casual. "One patch near the second Martello Tower, St. Aubin's Bay." J. Piquet, who sent a specimen to Mr. Arthur Bennett in 1878. Not there now.

# 7. Melilotus Adans.

 M. altissima Thuill. (M. OFFICINALIS Lam.) An occasional casual. Millbrook (1896). Samarès (1896). Le Hocq (1900). 2. M. arvensis Wallr.

A rare casual. Waste ground, St. Helier's (1901).

 M. alba Desr. Casual. Near Don Bridge. J. Piquet. Bel Royal (1896). In a field of lucerne at Grouville (1901).

4. *M. parviflora Desf.* (*M. indica All.*) Casual; the commonest of the four species. More or less naturalised on the sandy ground about Pontac and La Rocque.

8. TRIFOLIUM L.

1, T. SUBTERRANEUM L.

Native. Dry, sandy banks and fields. Common. April to June.

Guernsey. Alderney. Sark. France.

## 2. T. PRATENSE L.

Native and planted. Pastures and roadsides. Common. May to August.

Guernsey. Alderney. Sark. France.

3. T. MARITIMUM Huds. (T. SQUAMOSUM L.)

Native? Fields and waste places near the sea. Very rare. May, June.

Waste ground at First Tower (1898). St. Ouen's Bay, J. Piquet, 1898. Bellozanne Valley (1899).

Guernsey (locally common). Rare in Normandy and Brittany; common further south. S. and W. Europe.

Probably a survival of the salt marshes on the south coast. now drained and cultivated.

4. T. incarnatum L.

Much sown for fodder, occasionally straying into hedges and roadsides.

5. T. Molinerii Bab.

Native? Dry, rocky places. Very rare. June.

On Janvrin's tomb, an islet in Portelet Bay, accessible only at low water.

In cultivated fields of T. INCARNATUM L. may occasionally be found plants with white or straw-coloured flowers (T. STRAMINEUM Presl. according to Druce, "Flora of Berkshire"). This form needs to be distinguished from T. MOLINERII, which appears to be the wild form of T. INCARNATUM, and has *normally* white or very pale rose flowers. The pubescence of

the stem is also rather less copious and decidedly more appressed, and the heads of flowers are shorter. The whole plant, as would naturally be expected, is less luxuriant in growth, but the points of difference are very slight. T. MOLINERII is said to be indigenous in Cornwall, and "the wild plant" exists in Spain, Sardinia, Algiers, and with less certainty in France, Italy, Dalmatia, the valley of the Danube, and Macedonia (Dc Candolle, "Origin of Cultivated Plants"). It is not to be found in Normandy (Corbière), and Lloyd and Grenier and Godron do not seem to distinguish it from T. STRAMINEUM Presl. The earliest Jersey specimen I have seen is dated 1869.

6. T. ARVENSE L.

Native. Sands and dry places. Frequent all round the coast. June to August.

St. Aubin's Bay. The Quenvais. Plémont. L'Etac. Bouley Bay. St. Catharine's Bay. Grouville Common.

Guernsey. Alderney. Sark. France.

7. T. STRIATUM L.

Native. Dry sandy places. Locally abundant. May to July.

West Mount. Portelet Bay. St. Ouen's Bay. Sorel Point. St. Catharine's Bay. Grouville Common.

Guernsey. Alderney. Sark. France.

Var. ERECTUM Leighton (Fl. Shropshire). A tall, luxuriant form, with very distant leaves and longer heads of flowers. St. Catharine's Bay. St. Peter's.

## 8. T. SCABRUM L.

Native. Dry sandy banks and fields. Locally abundant. May to July.

St. Aubin's Bay. The Quenvais. St. Ouen's Bay. Grosnez. St. Catharine's Bay. Grouville Common. Samarès.

Guernsey. Alderney. Sark. France.

9. T. GLOMERATUM L.

Native. Sandy fields. Locally abundant. May to July.

St. Aubin's Bay. St. Brelade's Bay. St. Ouen's Bay. St. Catharine's Bay. Grouville Common.

Guernsey. Alderney (? rare). Sark. France.

10. T. SUFFOCATUM L.

Native. Sandy commons. Local. April to June.

West Mount. Bel Royal. East end of St. Brelade's Bay. Archirondel Tower. St. Catharine's. Grouville Common. Guernsey (very rare). Alderney (rare). Sark. Normandy (rare). W. Fránce. S. and W. Europe.

## 11. T. STRICTUM L.

Native. Very local. Sandy fields. May, June.

Abundant in a field at the top of the hill close to St. Brelade's Church, 1902. "The Quenvais and La Moie." J. Piquet ! 1864. The Corbière. Mr. E. D. Marquand, 1900! "In several spots about St. Brelade's and border of field near Noirmont." Mr. J. W. White, 1896.

Normandy (Falaise). Brittany (Cancale). Very local in W. France. S. and W. Europe, as far north as the Lizard.

12. T. hybridum L.

Escape from cultivation. Roadsides and dry places. Not common. June to August.

First Tower. Waterworks Valley. Five Oaks.

Central Europe. Not native in Normandy or W. France.

13. T. REPENS L.

Native. Fields and waste places. Common. May to September.

Guernsey. Alderney. Sark. France.

- Var. PHYLLANTHUM DC. Damp meadow near Samarès, July 6, 1899. A remarkable monstrosity. Pedicels varying in length, many of them extremely long: teeth of the calyx sometimes normal, often foliaceous: petals and stamens occasionally foliaceous as well. Has been found occasionally in Normandy: unnoticed by Lloyd• or Grenier and Godron.
- 14. T. FRAGIFERUM L.

Native. Damp meadows. Not common. June to August. Samarès Meadows. St. Ouen's Pond.

Guernsey. Alderney. France.

15. T. resupinatum L.

Casual. Waste ground at First Tower, 1898. More or less naturalised beside the road along the shore in St. Ouen's Bay, near the Pond.

 T. PROCUMBENS L. Native. Dry places. Frequent. May to September.

Bel Royal. St. Ouen's Bay. St. Catharine's Breakwater. Grouville Common.

Guernsey. Alderney. Sark. France.

- T. DUBIUM Sibth. (T. MINUS Sm.) Native. Meadows, banks, and waste places. Abundant. April to September. Guernsey. Alderney. Sark. France.
- 18. T. FILIFORME L.

Native. Grassy places. Not uncommon. May to August.
Bel Royal. Portelet Bay. St. Brelade's Bay. Grand
Val. St. Catharine's Bay. Grouville Common. Mr. J. W.
White.

Guernsey. Alderney (rare). Sark. France.

## 9. ANTHYLLIS L.

1. A. VULNERARIA L.

Native. Cliffs on the north and west coasts. Not common. April to July.

The Quenvais. La Pulente. L'Etac. Grosnez Castle. Plémont. Vinchelez. Grève de Lecq.

Guernsey (very rare). Alderney (rather common). Sark. France.

A variable plant. In Jersey the flowers are pale yellow or cream-coloured, and the plant is more or less covered with short, adpressed, silky hairs.

10. Lotus L.

1. L. CORNICULATUS L.

Native. Fields and roadsides. Common. May to September.

Guernsey. Alderney. Sark. France.

Var. CRASSIFOLIUS Pers. Common on the coast.

2. L. ULIGINOSUS Schkr. (L. MAJOR Sm.)

Native. Damp places. Frequent. May to September.

Guernsey. Alderney. Sark. France.

3. L. ANGUSTISSIMUS L.

Native. Dry banks and hillsides. Not very common. May to August.

Noirmont. Portelet Bay. Waterworks Valley. Grand Val.

Guernsey. Alderney. Sark. Normandy (rare). W. France. W. and S. Europe.

- Var. SERINGIANUS Bab. (Fl. Sarn.) "Pedunculo semper folium subæquante, foliolis obovato-oblongis stipulisque ovatis acutis, caulibus ascendentibus." Noirmont Warren. Rozel. Grand Val.
- 4. L. HISPIDUS Desf.

Native. Dry banks, sandy waste places. More common than the preceding species. May to August.

The Écrèhos Rocks. Portelet Bay. Waterworks Valley. St. Catharine's Bay, &c.

Guernsey. Alderney. Sark. Normandy (rare). W. France. W. and S. Europe.

11. Ornithopus L.

1. O. perpusillus L.

Native. Dry banks and hillsides. Abundant. April to July.

Guernsey. Alderney. Sark. France.

12. Hippocrepis L.

1. H. COMOSA L.

Native. Cliffs in the north-west. Very local. April to June. Grosnez Castle. Plémont.

Normandy. W. France. W. and. S. Europe. Usually on calcareous soils.

## 13. VICIA L.

- V. HIRSUTA Koch. (ERVUM HIRSUTUM L.) Native. Dry waste places. Frequent. May to August. St. Aubin's Bay. The Quenvais. L'Etac. Waterworks Valley. Grand Val. St. Catharine's Bay. Mt. Orgueil. Guernsey. Alderney. Sark. France.
- 2. V. TETRASPERMA Mœnch. (V. GEMELLA Crantz. ERVUM TETRA-SPERMUM L.)

Native. Waste places. Not common. May to August. St. Helier's. The Quenvais. St. Aubin's. St. Catharine's

Breakwater. Pontac. Waterworks Valley (very large).

Guernsey (rare). Alderney (rare). Sark. France.

3. V. CRACCA L.

Native. Hedges and thickets. Not very common. June to August.

St. Peter's. St. Ouen's Bay. Grouville, Samarès. St. John's. Trinity. Guernsey. Alderney (rare). Sark. France. 4. V. SEPIUM L. Native. Woods and hedges. Very rare. May to August. "Shady woods, St. Peter's." J. Piquet. Don Bridge. Guernsey (rare). Sark. C. P. Hurst. France. 5. V. LUTEA L. Native? Bushy places. Very rare, May, June. Mt. Orgueil, facing the sea. S. Guiton, 1900! The locality is suspicious, as Mt. Orgueil is full of relics of former cultivation. Guernsey (very rare). Normandy. W. France. 6. V. sativa L. Much planted for fodder. 7. V. ANGUSTIFOLIA L. Native. Drv banks and hedges. Common. April to July. Guernsev, Aldernev, Sark, France, A beautiful form of the plant with very large flowers is not uncommon. Near La Moie Signal Post a form occurs with pale flowers streaked with purple. Var. BOBARTH Koch. Sandy field on the Quenvais, near La Pulente. 8. V. LATHYROIDES L. Native. Sand-dunes, dry fields and hillsides on the coast. Not uncommon. March to July. All along St. Aubin's Bay. St. Brelade's Bay. The Quenvais. Grouville Common. Guernsey (rare). Jethou. Normandy (rare). W. France. A small, prostrate plant with very small, sub-solitary, bluish flowers, coming into flower perceptibly earlier than V. ANGUSTIFOLIA. The first of the vetches to bloom. 14. LATHYRUS L. 1. L. PRATENSIS L. Native. Hedges and dry banks. Not very common, but fairly evenly distributed in the interior. June to August.

St. Laurence. St. John's. Trinity. Grouville. Very rare in Guernsey and Alderney. France. .

2. L. Aphaca L.

Casual. Trinity. J. Piquet. Five Oaks Brick Kilns. Miss D. Higginson, sp. 1898! Garden at Samarès. Miss A. Goate, sp. 1900!

## Geraniaceæ.

1. GERANIUM L.

1. G. sanguineum L.

Garden escape. Lane at St. John's. J. Piquet, 1898.

2. G. striatum L.

Garden escape. Hedge at St. Martin's. J. Piquet. Hedge close to Trinity Church.

3. G. pyrenaicum L.

Casual? I have seen a specimen collected by *Dr. Bull* many years ago "near Victoria College." "Near Pontac." *Bab.* and *Piquet.* In Normandy Corbière regards it as introduced in many places. Not seen in Jersey for many years.

4. G. MOLLE L.

Native. Hedges, banks, and sandy fields. Abundant. May to September.

Guernsey. Alderney. Sark. France.

5. G. pusillum L.

Native. Dry banks and fields. Very rare. May to September.

St. Clement's. Bab. Near La Haule. J. Piquet. Portelet Bay. I have seen an unlocalised specimen of Dr. Bull's dated 1866.

Normandy. W. France.

6. G. ROTUNDIFOLIUM L.

Native. Dry banks and waste places. April to August. Not common.

St. Aubin's. Beaumont. Grouville. Mt. Orgueil. La Rocque.

Alien in Guernsey and Alderney. France.

7. G. dissectum L.

Native. Roadsides and hedges. Common. April to July. Guernsey. Alderney. Sark. France.

8. G. Lucidum L.

Native. Banks and hedges. Very rare. May to July.

La Haule Lane (plentiful). Gathered by Dr. Bull in 1872. Normandy, W. France.

9. G. ROBERTIANUM L.

Native. Shady hedges. Common. April to August.

Guernsey. Alderney. France.

Var. PURPUREUM (Vill.).

Native. Dry, sunny banks. Locally abundant. April to August.

The Quenvais. St. Brelade's. Near St. Peter's Church. L'Etac.

Guernsey (G. ROBERTIANUM var. MODESTUM). Normandy (frequent). W. France (common in the south).

A rather marked variety of the preceding species. The points of distinction are: (1) The habit, erect or ascending and not straggling or decumbent; (2) the almost total absence of the villous hairiness and characteristic odour of G. ROBERTIANUM L.; (3) the much smaller petals, and finer yet stiffer stems and leaves; (4) it loves dry, open, sunny situations, often growing in almost pure sand. In habit the plant resembles G. LUCIDUM L. I have little doubt that this is the plant known as G. PURPUREUM Vill. to the French botanists, and the same form (from Devonshire) was named "G. ROBERTIANUM L. forma G. PURPUREUM Vill. e modestum Rouy et Fonc." for the Bot. Exch. Club in 1898. On the other hand, it does not answer well to Villars' own figure of the plant, if any reliance can be placed on that, as was pointed out to me by Mr. J. Britten. It is not the G. PURPUREUM of the Eng. Bot. and Forster, according to Mr. Arthur Bennett.

2. ERODIUM L'Hérit.

1. E. CICUTARIUM L'Hérit.

Native. Sandy fields. Very common. April to October. Guernsey. Alderney. Sark. France.

Very variable in size and in the colour of the petals.

2. E. MOSCHATUM L'Hérit.

Native. Fields, banks, and waste places. Frequent. March to September.

Guernsey. Alderney. Sark. France.

3. E. MARITIMUM L'Hérit.

Native. Sandy fields on the shore. Rare. April to June. "St. Catharine's Bay, near St. Helier and the Grève de

Lecq." Bab. "St. Ouen's Bay and Bouley Bay." J. Piquet. Mt. Orgueil. F. Duprez. East side of St. Brelade's Bay. Noirmont. F. Piquet !

Guernsey (rare). Herm and Jethou. Alderney. Sark. Normandy (rare). W. France (local). A S. and W. European plant as far north as Wales.

### Oxalidaceæ.

1. OXALIS L.

1. O. Acetosella L.

Native. Damp, shady banks. Rare. March to May. Vallée des Vaux. Bonne Nuit Bay. Rozel. J. Piquet. Common in France.

2. O. CORNICULATA L.

Colonist. Often appears as a weed in gardens, and naturalised in hedges and by roadsides near houses. May to October.

Guernsey (rare). Sark. Normandy (rather rare). Brittany · (frequent).

### Linaceæ.

1. RADIOLA Roth.

1. R. LINOIDES Roth.

Native. Damp places on heathy ground. Not common. May to August.

The Quenvais. Bab. Noirmont Warren. Grosnez Castle. Bouley Bay.

Guernsey. Alderney. Sark. France.

2. Linum L.

1. L. CATHARTICUM L.

Native. Open, sandy fields. Rare. June to August. The Quenyais. La Moie. St. Ouen's Pond.

The Quenvais. La Moie. St. Ouen's Pond

Guernsey. Alderney. France.

2. L. Angustifolium Huds.

Native. Hillsides on the coast. Frequent. May to August. The Quenvais. La Moie. Bouley Bay. St. Catharine's Bay. Gorey.

Guernsey. Alderney. Sark. France.

3. L. usitatissimum L.

Escape from cultivation formerly. J. Piquet, sp. 1866 ! Has now disappeared,

### Polygalaceæ.

#### 1. POLYGALA L.

1. P. SERPYLLACEA Weihe. (P. DEPRESSA Wend.)

Native. Common on heathy hillsides and cliffs. April onwards.

Guernsey. Sark. Common on siliceous soils in France.

Distinguished by (1) the low, trailing growth; (2) the opposite (or sub-opposite) intermediate leaves; (3) the marked prolongation of the flowering branches beyond the raceme, which thus becomes lateral. Flowers white, pink or blue. I have never seen typical P. VULGARIS L. in Jersey, as was to be expected of a plant which affects calcareous soils, but Mr. Marquand records it somewhat doubtfully from the other Islands. P. OXYPTERA Reich. seems hardly to deserve serious consideration.

#### Euphorbiaceæ.

1. MERCURIALIS L.

1. M. PERENNIS L.

Native. Thickets on the north and east coasts. Rare. April, May.

St. Catharine's Bay. J. Piquet, sp. 1866! La Saline, St. John's. Rozel. F. Piquet, sp. 1870!

Normandy. W. France (local).

2. M. ANNUA L.

Native. Cultivated fields, roadsides and waste places. Abundant. April to October.

Abundant in all the Islands and in France.

2. Euphorbia L.

1. E. Peplis L.

Native once, now extinct? Sandy shores. August to September.

St. Ouen's Bay. Bab. Grouville Bay. J. Piquet. St. Aubin's Bay. J. Piquet, sp. 1860!

Guernsey (extinct). Herm. Alderney. Normandy (rare). A littoral plant of S. and W. Europe, as far north as Wales.

2. E. Helioscopia L.

Colonist? Cultivated fields and waste places. All over the Island, but not abundant anywhere. May to October. Guernsey. Alderney. Sark. France.

3. E. AMYGDALOIDES L.

Native. Woods, hedges, and on the cliffs. Common. April to June.

Guernsey. Sark (Bab.). France.

4. E. PARALIAS L.

Native. Sandy bays and sand-dunes. Local. July, August. Locally abundant in St. Ouen's Bay. The Quenvais. Very sparsely along the coast from Le Hocq to Grouville. Guernsev. Alderney. Sark, France.

5. E. PORTLANDICA L.

Native. Frequent on rocks and in sandy bays all round the coast as well as on the Quenvais. May to July.

Guernsey. Alderney. Sark. France. A littoral plant of W. Europe in the narrowest sense, from Wigton to Biarritz, and as far east as Dunkerque.

6. E. Peplus L.

Native. Fields and roadsides. Frequent rather than common. May to October.

Guernsey. Alderney. Sark. France.

7. E. EXIGUA L.

Colonist. Cultivated ground. Very rare in my experience, though *Bab.* says "common," and *Piquet* "frequent." June to September.

Le Cornu's Nurseries. F. Piquet, sp. 1871!

Guernsey (frequent). Sark. France.

8. E. Lathyris L.

Garden escape. St. Peter's Valley.

## Callitrichaceæ. (Position doubtful.)

1. CALLITRICHE L.

1. C. VERNA L. (C. VERNALIS Kütz.).

Native. Stagnant ditches.

- L'Etac (fide Arthur Bennett).
- Guernsey. Alderney (?). Sark. France.
- 2. C. HAMULATA Kütz.

Native. Pools. ? Rare.

Stagnant pool in a quarry at the Corbière. "Characteristic specimens of the slender form." A. Bennett. Grand Val, Guernsey (rare). France. 3. C. OBTUSANGULA Le Gall.

Native. Running streams. ? Common. Bellozanne Valley (*fide A. Bennett*). George Town. Guernsey. France.

## Aquifoliaceæ.

1. Ilex L.

 I. Aquifolium L. (Holly). Planted in hedges and shrubberies.

#### Aceraceæ.

1. Acer L.

1. A. Pseudo-platanus L. Sycamore. A planted tree.

. A. campestre L. Maple.

Very rare in Jersey, and doubtless planted where it occurs, as is the case in Guernsey. Swiss Valley. Rose Lane, Montau-Prêtre. F. Piquet, 1870!

#### Tiliaceæ.

1. Tilia L.

1. T. vulgaris Hayne. Planted in streets in St. Helier's and St. Aubin's.

#### Malvaceæ.

1. Lavatera L.

1. L. arborea L.

Much cultivated in cottage gardens on the coast, and frequent in their neighbourhood. Possibly native once. May, June. Guernsey. Alderney. Sark. Normandy (not indigenous, Corbière). W. France.

2. L. cretica L. (L. silvestris Brot.)

Denizen. Waste places near the sea. Very rare. June to August.

Ruins of an old house at St. Aubin's. Waste ground at Bel Royal (1899).

A S. European plant, appearing occasionally on the W. coast of France. Guernsey. Locally abundant in the Scilly Islands (*Journ. Bot.*, 1893, p. 266). Much resembles MALVA SILVESTRIS L. 2. Althæa L.

1. A. OFFICINALIS L.

Native. Damp meadows near the sea. Rare. June to August.

Samarès Meadows. F. Piquet, 1869: still there. Between Pontac and La Rocque.

Guernsey (extinct). Common in France.

3. MALVA L.

1. M. MOSCHATA L.

Colonist? Open fields. Rare and uncertain in its appearance. June to August.

St. Aubin's. Rev. H. J. Summer ! St. Ouen's Bay. St. Peter's. Samarès. Grouville. S. Guiton.

Rare in Guernsey and Alderney. Very common in Sark. Bab. France.

2. M. SILVESTRIS L.

Native. Sandy fields and waste places. Frequent. May to September.

Guernsey. Alderney. Sark. France.

3. M. rotundifolia L.

Native. Fields and waste places. Frequent. June to September.

(+uernsey. Alderney (very rare). Sark. France.

Guttiferæ. (Sub-fam. Hypericoideæ.)

Hypericum L.

1. H. Androsæmum L. (Androsæmum officinale All.)

Native. Hillsides and shrubby places. Rare. June, July. "Behind La Haule. Mr. W. Christy." Bab. "Hillsides on the north coast. Rare." J. Piquet! Cliffs at Giffard Bay.

Guernsey (very rare). Sark. Normandy. W. France.

2. H. perforatum L.

Native. Roadsides and hedges. Not common. June to August.

Bagot. Grouville. St. Catharine's Bay. Trinity Hill, Guernsey. France.

3. H. TETRAPTERUM Fr. (H. QUADRATUM Stokes). Native. Damp places. Frequent. June to August. St. Ouen's Bay. Bagot. Waterworks Valley.

Guernsey. Alderney. Sark. France.

4. H. HUMIFUSUM L.

Native. Dry banks and hillsides. Frequent. May to August.

St. Saviour's Valley. Waterworks Valley. St. Aubin's. La Moie. Grouville, &c.

Guernsey. Alderney. Sark. France.

5. H. LINARIFOLIUM Vahl.

Native. Dry heathy hillsides. Local. June to August.

Beaumont. Noirmont Warren (plentiful). St. Ouen's Bay. Bouley Bay. St. Catharine's Bay. Gorey.

S.W. Europe, as far north as Devon and Cornwall. Guernsey (very rare). Alderney. Normandy. W. France.

H. DECUMBENS (Peterm.), a supposed hybrid with H. HUMI-FUSUM L. is recorded for Jersey in Hooker's "Students' Flora," and for Guernsey by Mr. Marquand. Forms which seem intermediate between the two species certainly occur.

6. H. PULCHRUM L.

Native. Dry heathy hillsides, &c. Rather common. June to August.

Alderney (rare). Sark. Guernsey. France.

7. H. elodes L.

Native. Boggy places. Not common. May to August.

La Moie. The Corbière. St. Ouen's Pond. St. Brelade's Bay. Bouley Bay. Giffard Bay.

W. Europe from Scotland to Spain. Guernsey. Alderney (rare). France.

#### Elatinaceæ.

#### 1. ELATINE L.

1. E. HEXANDRA DC.

Native. Edges of ponds. Very local. June to September. Abundant in the Old Reservoir, Waterworks Valley. Mr. Piquet tells me that he found it years ago at the Town Mill Pond, and also in abundance round the pond on La Moie Common.

Normandy (rare). W. France (local).

## Frankeniaceæ.

1. FRANKENIA L.

1. F. lævis L.

Native. Rocky places close to the sea. Very rare. July.

Plémont (1899). "Near the Grève d'Azette, Mr. B. Saunders." Bab.

Guernsey (extinct). Normandy (rare). A maritime plant of S. Europe, common in W. France.

## Tamaricaceæ.

1. Tamarix L.

1. T. gallica L.

Planted and more or less naturalised in sandy places on the coast.

### Cistaceæ.

## 1. HELIANTHEMUM Hall.

## 1. H. GUTTATUM Mill.

Native. Dry, sunny, heathy, and rocky places. Common in the west. May, June.

Noirmont. St. Brelade's to the Corbière. Grosnez. L'Etac. Alderney. Normandy. W. France. A plant of S. and W. Europe as far north as Cork, and Anglesey (H. BREWERI Planch.). The petals, which in Jersey always have a brown blotch at the base, are so fugitive that it is difficult to find a plant with a perfect corolla. The French botanists recognise several forms, among which var. MARITIMUM Lloyd seems to closely approach H. BREWERI. No form with bracteate pedicels occurs in Jersey. Recorded in Ray's Synopsis as having been found by Dr. Sherard at Grosnez.

## Yiolaceæ.

1. VIOLA L.

 V. SILVESTRIS Fr. var. RIVINIANA (Reich.). Native. Dry banks, commons, and hillsides. Very common. February to May.

Guernsey. Alderney. Sark. France.

2. V. ARVENSIS Murr.

Native. Cultivated fields. Not common. April onwards. St. Brelade's Bay. Bouley Bay.

Guernsey (common). Alderney. Sark.

Var. NANA DC. Native. Sand dunes and sandy fields. Locally abundant. St. Aubin's Bay. St. Brelade's Bay. St. Ouen's Bay. The Quenvais. A dwarf maritime form, frequent on the coast of Normandy, Brittany, and W. France. Guernsey (local).

3. V. odorata L.

Garden escape, more or less naturalised in the Swiss Valley and in Waterworks Valley—the white-flowered form.

## Thymelæaceæ.

1. DAPHNE L.

1. D. LAUREOLA L.

Possibly native, but only in rather suspicious situations. Woods and thickets. Very rare. February to April. Between Beaumont and St. Peter's. Pont Marquet. St. Brelade's. J. Piquet. Samarès. Normandy (frequent). W. France (not common).

### Lythraceæ.

1. Peplis L.

1. P. PORTULA L.

Native. Wet places. Rare. June to August.

St. Peter's Marsh and near Petit Port. Bab. La Moie Common. F. Piquet, 1871! Old Reservoir, Waterworks Valley. Marsh on Grouville Common. Cuamaga (2007) Sark France

Guernsey (rare). Sark. France.

2. LYTHRUM L.

1. L. Salicaria L.

Native. Marshy places. Rare. July to September. St. Ouen's Pond. St. Peter's Valley.

Guernsey (rare). France.

2. L. HYSSOPIFOLIA L.

Native. Damp, inundated places. Very rare. July to September.

Le Marais, St. Ouen's. J. Piquet, 1870! also Rev. J. D. Gray, 1894! "In a marshy place near Grouville." Bab. Guernsey (casual). Common in France.

## Onagraceæ.

#### 1. LUDWIGIA L.

1. L. APETALA Wallr. (ISNARDIA PALUSTRIS L.)

Native. Marshy places. Extinct? June to September. "St. Peter's Marsh, Messrs. Haslam and W. Christy." Bab. "Marsh on Gorey Common, very rare. Formerly very abundant in St. Laurence's Marsh before it was drained: now destroyed there." J. Piquet. Mr. Arthur Bennett informs me that it was found by Dr. Arnold Lees in 1874, but Mr. J. C. Melvill considered it extinct in 1876. Normandy (rare). W. France.

2. Epilobium L.

1. E. HIRSUTUM L.

Native. Damp places. Very rare. July, August.

St. Aubin's. Rev. H. J. Summer, sp. ! "Ditches and wet places, St. Clement's. Frequent." J. Piquet. Certainly not frequent there now. I have only seen a few plants in a withy-bed between George Town and Samarès.

Guernsey (frequent). Sark. France.

2. E. parviflorum Schreb. (E. Molle Lam.)

Native. Damp places. Not common. June to September. St. Brelade's. St. Ouen's Pond. Samarès. "Grouville Churchyard." Bab.

Guernsey. Alderney. Sark. France.

Babington ("Manual of Brit. Bot.," ed. 3) says: "A dwarf, woolly form, with ovate, obtuse leaves occurs in Jersey." This is doubtless the plant more fully described in the "Fl. Sarn." as a "variety?" and localised on the Quenvais. No doubt a starved state. The plant is often densely woolly.

3. E. montanum L.

Native. Banks and dry places. Frequent. June to September.

Grouville. St. Catharine's Bay. Bouley Bay. St. Peter's Valley, &c.

Guernsey, Sark. France,

4. E. LANCEOLATUM Seb. and Maur.

Native. Walls and roadsides. Locally common. June to August.

St. Helier's. La Haule. St. Laurence's Valley.

Guernsey (frequent). Alderney. France.

Clearly distinct from both the preceding and the succeeding species.

5. E. TETRAGONUM L.

Native. Hedges, waste places, borders of streams. Common. June to September.

( $\alpha$ ) E. OBSCURUM Schreb. Walls and dry places chiefly. Common.

(b) E. ADNATUM Griseb. Sides of streams, &c. Frequent.

St. Saviour's. E. D. Marquand. Grand Val. Samarès Meadows.

Guernsey (both forms). Sark. France.

## 3. Enothera L.

1. O. biennis L.

Alien. Sands on the coast. Rare. June to September. Naturalised in St. Aubin's Bay near First Tower.

A North American plant, naturalised in many places in England, Normandy, and W. France. Guernsey (casual).

2. O. odorata Jacq. (O. stricta Lindeb. ?).

Alien. Sandy and waste places. Locally abundant and thoroughly naturalised. June to October.

St. Aubin's Bay. St. Brelade's Bay. The Quenvais. Beside the Eastern Railway. Grouville Common.

A Patagonian plant (Hooker). Guernsey. Alderney (rare). Cabourg in Normandy. Ports of W. France.

Has apparently diffused itself since Babington's time, as he could hardly have overlooked so conspicuous a plant.

## 4. CIRCÆA L.

1. C. LUTETIANA L.

Native. Shady woods. Not very common. June to August.
Waterworks Valley. Trinity Manor. Near Dielament
Manor. St. Peter's Valley. Bab. Swiss Valley.
Guernsey. Alderney. France.

### Halorrhagidaceæ.

1. Myriophyllum L.

1. M. ALTERNIFLORUM DC.

Native. Ponds. Very rare. June to August.

Pond on the cliffs between Portelet Bay and Noirmont Point.

Guernsey (rare). France.

2. M. SPICATUM L.

Native. Ponds. Rare. June to August. St. Ouen's Pond.

Guernsey (rare). France.

### Araliaceæ.

1. HEDERA L.

1. H. Helix L.

Native. Hedges, on trees and cliffs on the coast. Abundant. October, November.

Guernsey. Alderney. Sark. France.

## Umbelliferæ.

1. HYDROCOTYLE L.

1. H. VULGARIS L.

Native. Wet places. Common. June to August. Guernsey. Alderney. Sark. France.

2. ERYNGIUM L.

1. E. MARITIMUM L.

Native. Sandy shores and sand-dunes. Frequent. July to September.

Guernsey. Alderney. Sark. Bab. France.

3. CHÆROPHYLLUM L.

1. C. TEMULUM L.

Native. Shady hedges. Not common. June, July. Le Hocq. Samarès. Near Swiss Valley. Grouvillc. Recorded by *Bab.* for Guernsey and Alderney, but not confirmed. Very common in France.

## 4. ANTHRISCUS Hoffm.

- 1. A. VULGARIS Bernh. (CHÆROPHYLLUM ANTHRISCUS Lam.) Native. Common in sandy places on the coast. May, June. Guernsey. Alderney. France.
- 2. A. silvestris Hoffm. (Charophyllum silvestre L.) Introduced? Very rare. May to July.

Babington's record for Jersey on the authority of Mr. J. C. Trevelyan has never been confirmed. It grows, or grew in 1896, round the ruins of a cottage on the Écrèhos Rocks, 8 miles N.E. of Jersey.

Guernsey (rare and perhaps introduced). Alderney (common). France.

5. SCANDIX L.

1. S. Pecten-Veneris L.

Casual. Fields and waste places. Very rare. May to August.

Rozel Heights. F. Piquet, 1873! St. Helier's Harbour (one plant).

Casual in Guernsey and Alderney. Very common in France.

### 6. TORILIS Adans.

 T. ANTHRISCUS Gmel. (CAUCALIS ANTHRISCUS Huds.) Native. Hedges and banks. Common. June to August. Guernsey. Alderney. Bab. Sark. France.

2. T. NODOSA Gærtn. (CAUCALIS Scop.)

Native. Dry banks and hillsides. Not common. June, July.

The Quenvais. St. Ouen's Bay. L'Etac. Gorey. Guernsey. Alderney. France.

7. Caucalis L.

1. C. daucoides L.

A scarce casual. St. Ouen's Bay. 1898. J. Piquet !

2. C. latifolia L.

A scarce casual. St. Ouen's Bay. 1900. J. Piquet !

8. Smyrnium L.

1. S. Olusatrum L.

Native or thoroughly naturalised. Rocks, banks, and waste places. Locally abundant. March to June.

Slopes of Fort Regent. St. Aubin's. St. Ouen's Bay. Gorey. Pontac.

Guernsey. Alderney. Sark. Normandy (a denizen and rare). Brittany (rare). Formerly much cultivated. Native in the Mediterranean region and perhaps in W. France.

9. Conium L.

1. C. MACULATUM L.

Native. Hedges and waste places. Frequent. June to August.

Noirmont. St. Peter's. L'Etac. Crabbé. St. Catharine's. Grouville. Samarès.

Guernsey, Alderney, Sark. France.

## 10. BUPLEURUM Tournef.

 B. ARISTATUM Bartl. (B. OPACUM Lange.) Native. Sand-dunes. Rare. June, July. The Quenvais, near Don Bridge. St. Ouen's Bay, at La Pulente, and near the Pond. Guernsey (rare). Alderney. Normandy (rare). W. France.

## 11. Apium L.

1. A. GRAVEOLENS L.

Native. Damp banks and ditches near the sea. Frequent. June to September.

St. Peter's. St. Ouen's Pond. L'Etac (abundant). St. Catharine's Breakwater. Samarès Meadows.

Guernsey. France.

2. A. NODIFLORUM Reichb. (HELOSCIADIUM Koch. SIUM L.) Native. Wet places. Very common. June to September.

Guernsey. Alderney. Sark. France.

Var. OCHREATUM DC. L'Etac.

A very variable plant, from a few inches to 3 or 4 feet in height. *Bab.* records var. REPENS Hook. f. (HELOSCIADIUM REPENS Koch) from "near Grouville."

3. A. INUNDATUM Reichb.

Native. Wet places. Not common. June to August. St. Ouen's Pond. The Old Reservoir in Waterworks Valley. "St. Peter's Marsh, and a pool at Noirmont." *Bab.* Guernsey (rare). Sark. *Bab.* France.

## 12. Petroselinum Hoffm.

- P. segetum Koch. (Carum segetum Benth.) Casual. Not far from St. Ouen's Pond. J. Crossfield, 1886. (Fide Mr. Arthur Bennett.)
- 2. P. sativum Hoffm. (Apium Petroselinum L. Carum Petroselinum Benth.)

Garden escape, occasionally naturalised on old walls.

13. FALCARIA Host.

1. F. Rivini Host,

Alien. Well established in a sandy field opposite Don Bridge Station. J. Piquet !

14. CARUM L.

# 1. C. VERTICILLATUM Koch.

Native. Damp places on cliffs in the north. Not common. June to August.

Bouley Bay. Bonne Nuit Bay.

France. A plant of W. Europe.

## 15. CONOPODIUM Koch.

1. C. DENUDATUM Koch. (BUNIUM FLEXUOSUM With.)

Native. Woods, hedges, and cliffs. Frequent. June, July. St. Brelade's Bay. Wood near Trinity Manor. Frequent in the north.

Guernsey (rare). France.

16. Жеорориим L.

1. Æ. Podagraria L.

Native, or perhaps only naturalised. Frequent in hedges and waste places in the vicinity of houses. June, July. Guernsey. France.

17. CRITHMUM Tournef.

1. C. MARITIMUM L.

Native. Common on rocks all round the coast. July, August.

Guernsey. Alderney. Sark. France.

18. ŒNANTHE L.

1. O. FISTULOSA L.

Native. Marshy places. Not common. June to August. St. Peter's Marsh. *Bab.* St. Ouen's Pond. Grouville. Samarès Meadows.

Guernsey (very rare). France.

2. O. LACHENALII C. Gmel.

Native. Damp places near the sca. Rare. July to September.
St. Ouen's Pond ("exactly Gmelin's plant," Mr. Arthur Bennett). Hillside at La Pulente, amongst JUNCUS GLAUCUS.
Guernsey. France. 3. O. CROCATA L.

Native. Damp meadows and beside streams. Abundant. May to July.

Guernsey. Alderney? Sark. France. W. Europe.

19. ÆTHUSA L.

1. Æ. CYNAPIUM L.

Colonist? Cultivated fields and waste places. Not common. June to September.

Thinly distributed over the island as a weed in cultivated ground.

Guernsey (rather rare). Sark. France.

20. Feniculum L.

1. F. VULGARE Mill.

Native? Rocks and waste places. Frequent. June to August. Apparently native in the rocky valley behind St. Aubin's and in St. Catharine's Bay: elsewhere an escape. Guernsey (denizen). Alderney. Sark. France.

21. ANGELICA L.

1. A. SILVESTRIS L.

Native. Damp places. Not very common. July to September. Boggy places on the cliffs in the north. Waterworks Valley. Trinity Manor.

France.

22. PASTINACA L.

 P. SATIVA L. (PEUCEDANUM SATIVUM Benth. and Hook.) Native. Waste places near the sea. Rare. July to September. St. Aubin's. Between Pontac and La Rocque. Guernsey. Alderney (? cult.). Sark. Bab. France.

23. Heracleum L.

1. H. Sphondylium L.

Native. Hedges and waste places. Frequent. June to September.

Guernsey. Alderney. Sark. France.

24. DAUCUS L.

1. D. CAROTA L.

Native. Hedge-banks and dry hillsides and sandy fields. Abundant.

Guernsey. Alderney. Sark. France.

Var. GUMMIFER (Lam.) is common on rocks on the coast. I regard it as an extreme maritime form, connected by intermediate forms, which the French botanists group under separate names, with the type. The length of the spines on the fruit, and the extent to which they are attached to one another present all sorts of gradations, and Mr. Marquand remarks that Watson raised D. CAROTA from seeds of D. GUMMIFER brought from Jersey.

### Cornaceæ.

1. Cornus L.

1. C. SANGUINEA L.

Native. Bushy places on the cliffs. Rare. May, June. Near Mt. Mado Quarries and on Le Catel, Grève de Lecq.

J. Piquet.

Common in France.

## Ericaceæ.

1. CALLUNA Salisb.

 C. ERICA DC. (C. VULGARIS Salisb.) Native. Common on cliffs and hillsides. June to August. Guernsey. Alderney. Sark. France.

# 2. Erica L.

1. E. TETRALIX L.

Native. Rough hillsides. Rare. June to September.

Only in the south-west corner of the Island. La Moie. East side of St. Brelade's Bay. Noirmont. J. Piquet. Common in France.

2. E. CINEREA L.

Native. Cliffs and rough hillsides. Common. June to August.

Guernsey. Alderney. Sark. France.

## Primulaceæ.

1. PRIMULA L.

1. P. ACAULIS L. (P. VULGARIS HUds.)

Native. Woods and hedges. Locally abundant. March to May.

Guernsey. Alderney. Sark. France.

2. P. VERIS L. (P. OFFICINALIS Jacq.)

Native. Cliffs in the north-east. Very rare. April, May. In a gully near the ruins of Grosnez Castle, the only locality in the Channel Islands.

France, but almost entirely confined to calcareous soils.

## 2. Samolus L.

1. S. VALERANDI L.

Native. Damp places. Local. June to August.

La Moie Common. St. Ouen's Pond. Canal du Squez. Grosnez. Le Hocq. Giffard Bay. Guernsev. Aldernev. Sark. France.

3. Lysimachia L.

# 1. L. NUMMULARIA L.

Native. Damp meadows. Very rare. July, August. St. Saviour's Valley, Mr. B. Saunders. Bab. Meadow between Longueville and Samarès. 1900. Guernsey (alien, Marquand). France.

4. GLAUX L.

## 1. G. MARITIMA L.

Native. Salt swamps. Very rare, on the way to extinction. June, July.

St. Ouen's Bay. Bab. Samarès Miles. F. Piquet, sp. 1869!: not there now. Still in a small swamp between Samarès and Le Hocq.

Guernsey (rather common). Alderney. France.

## 5. Anagallis L.

1. A. arvensis L. (A. phœnicea Lam.).

Native. Dry places and cultivated fields. Common. May to September.

Guernsey. Alderney. France.

The petals are occasionally salmon-coloured, or more rarely claret-coloured.

Var. CÆRULEA (Schreb.). Rare.

Fields to the east of St. Helier. *Bab.* Still there. "Sandy places. St. Brelade's Bay. Rare." *J. Piquet.* Disused quarry in St. Catharine's Bay. 1900.

Normandy (frequent). W. France (very rare north of the Loire, *i.e.*, on siliceous soils).

2. A. TENELLA L.

Native. Wet places. Locally common. June to August.

St. Brelade's Bay. La Moie Heath. Grand Val. Canal du Squez, &c. Bouley Bay.

Guernsey. Alderney. France.

### 6. Centunculus L.

1. C. MINIMUS L.

Native. Damp roadsides, &c. Rare? July, August.

The Quenvais. Bab. Rediscovered by Mr. J. Piquet at Bouley Bay in 1902! May prove to be not uncommon.

Guernsey (frequent). Alderney. France (local).

#### Plumbaginaceæ.

1. Armeria Willd.

A. MARITIMA Willd.

Native. Rocks and cliffs all round the coast. Common. April to August.

Guernsey. Alderney. Sark. France.

2. A. PLANTAGINEA Willd.

Native. Sand-dunes. Locally abundant. June, July.

Abundant on the Quenvais and in St. Ouen's Bay, forming large sheets of splendid colour.

A plant of S. and W. Europe. Common in W. France as far north as Loire-Infèrieure: absent or very rare in Brittany. Corbière gives 10 stations in Normandy.

# 2. STATICE L.

1. S. BINERVOSA G. E. Smith (*fide Arthur Bennett*). ?= S. AURICULÆFOLIA Vahl. and S. OCCIDENTALIS Lloyd.

Native. Rocks by the sea. Very local. July to September.

La Collette. Abundant near Plémont and close to the Pinnacle Rock at L'Etac. S. Guiton. Mr. Piquet says "all round the Island."

Guernsey (frequent). Alderney. Sark. Normandy (rare). W. France.

For the intensely confusing synonomy sec A. Bennett in the Journal of Botany, 1894, p. 367.

## Oleaceæ.

1. FRAXINUS L.

1. F. EXCELSIOR L.

Native and planted. Woods and hedges. Frequent. April. Guernsey. Alderney. Sark. France.

2. LIGUSTRUM L.

1. L. VULGARE L.

Native on the coast, frequently planted in hedges. June, July.

Southern slopes of St. Ouen's Bay and on L'Ile Agois, Crabbé. Abundant. J. Piquet. Beau Port, St. Brelade's. St. Catharine's Bay.

Guernsey. Alderney (rare). Sark. France.

## Gentianaceæ.

1. MICROCALA Lk. and Hoffm.

1. M. FILIFORMIS L. and H. (CICENDIA Delarb. EXACUM Willd. GENTIANA L.)

Native. Damp, open places. Rare. July, August.

The Quenvais and St. Brelade's. Bab. Le Marais, Noirmont. J. Piquet, sp. 1873! Portelet. F. Piquet, sp. 1871! Bouley Bay, 1901.

Guernsey. France.

2. ERYTHRÆA L. C. Rich.

1. E. CENTAURIUM Pers.

Native. Dry places, especially near the sea. Not uncommon. June, July.

Noirmont. Portelet. The Quenvais. St. Ouen's Pond. St. Laurence Valley. St. Catharine's Bay. Bouley Bay. Samarès.

Guernsey. Alderney. Sark. France.

2. E. PULCHELLA Fr. (E. RAMOSISSIMA Pers.)

Native. Damp meadows. Very rare. June, July.

The Quenvais. Bab. Hollows near St. Ouen's Pond. F. Piquet, sp. 1873!: not there now. Samarès Meadows, 1897, but the field has been ploughed up. Guernsey (rare). France. 3. MENYANTHES L.

1. M. TRIFOLIATA L.

Native. Wet places. Very rare. May.

Moulin de Paul Millpond, St. Saviour's Valley. Mr. J. Piquet tells me that it formerly grew in St. Peter's Marsh. Guernsey (very rare). France.

### Apocynaceæ.

1. VINCA L.

1. V. MINOR L.

Local as a native plant, more frequent as an escape from cultivation. Woods and hedges. March to May.

Abundant and apparently native in a hedge beside the millstream above the Moulin de Paul in St. Saviour's Valley, and in the upper part of St. Saviour's Valley. Native also in St. Peter's Valley, and in a valley near Rozel. S. Guiton.

Native in Normandy and W. France.

2 V. major L.

Garden escape, as also in Guernsey and Alderney.

## Convolvulaceæ.

1. CONVOLVULUS L.

1. C. ARVENSIS L.

Native. Ubiquitous. By far too common. Guernsey. Alderney. Sark. France.

2. Calystegia R. Br.

1. C. SEPIUM R. Br.

Native. Hedges and thickets. Frequent. June to August. Guernsey. Alderney. Sark. France.

Mr. Marquand records for Guernsey "a pretty variety, having the flowers banded with pink," which Mr. S. Guitonhas found at the top of Beaumont Hill. In America the corolla is commonly "light rose-colour" (A. Gray, "Manual of Bot. of U.S."), and this form occasionally occurs in both Normandy and Brittany.

2. C. Soldanella R. Br.

Native. Sandy beaches. Locally common. June to August. St. Aubin's Bay. St. Ouen's Bay. St. Brelade's Bay. Grève de Lecq. Gorey. La Rocque. Pontac. Guernsey. Alderney, France. 3. Cuscuta L.

1. C. Epithymum Murr.

Native. Parasitic on various plants. Common. June to August.

Guernsey. Alderney. Sark. France.

In Jersey most often parasitic upon the Gorse, which it sometimes completely smothers. The colour varies—light green, yellow or red stems with white or pink flowers, but I have never been able to trace any adaptation to the colour of its surroundings. Other plants which it affects are GALIUM VERUM, ERICA CINEREA, and BARTSIA ODONTITES.

2. C. Trifolii Bab.

Casual, if correct. Field at St. Clement's.J. Piquet.

## Borraginaceæ.

1. Cynoglossum L.

1. C. OFFICINALE L.

Native. Dry waste places. Very rare, apparently extinct. May to July.

The Quenvais. *Bab.* and *J. Piquet.* I have seen a Jersey specimen, unlocalised and undated, gathered by *Mr. F. Piquet* years ago.

Guernsey. Alderney. Bab. Herm. Rev. H. J. Summer, sp. 1884! France.

2. Symphytum L.

1. S. officinale L.

Native. Damp hedges and waste places. Not very common. May to July.

St. Ouen's Bay. Bouley Bay. La Saline, St. John's. Samarès. Grand Val.

Guernsey (rare). Alderney (rare). France.

3. Borrago L.

1. B. officinalis L.

Naturalised. Frequent in waste places near houses, on rubbish heaps, &c., sporadic elsewhere. April to August.

Guernsey. Alderney. Sark. France.

I follow the spelling of "Das Ptlanzenfamilien."

4. Anchusa L.

1. A. SEMPERVIRENS L.

Apparently native in at least one locality. Not uncommon in hedges as an escape from cottage gardens. April to Junc. Wood close to the Moulin de Paul Millpond in St. Saviour's Valley, where it is abundant. Valley des Vaux. Waterworks Valley. St. Peter's. Roadsides near Trinity.

Guernsey (very rare and introduced). Normandy (naturalised, Corbière). Brittany (native at Dinan! and elsewhere). W. Europe, from Belgium to Spain.

2. A. italica Retz.

Casual. L'Etac. 1900.

5. LYCOPSIS L.

1. L. ARVENSIS L.

Native or colonist. Cultivated fields. Frequent. April to June.

St. Aubin's Bay. St. Brelade's. Plémont. St. Peter's. La Rocque, &c.

Guernsey, Alderney, Sark, France.

6. Myosotis L.

1. M. PALUSTRIS Roth.

Native. Wet places. Rare. May to August.

Waterworks Valley. Rev. W. M. Rogers. St. Ouen's Pond (absolutely glabrous, ? M. STRIGULOSA Reichb.).

- Var. REPENS (Don.). Common in damp places and beside streams in the valleys. M. REPENS is common in Guernsey, Alderney, and Sark. There is one doubtful record of M. PALUSTRIS for Guernsey. The forms are too much alike to be regarded as separate species, and some glabrous forms approach M. C.E.SPITOSA.
- 2. M. CÆSPITOSA F. Schultz.
  - Native. Damp places. Rare. June, July.

Near La Moie Signal Post and in St. Peter's Marsh. Bab. St. Ouen's Pond. Grouville.

Guernsey (local). France.

### 3. M. ARVENSIS Lam. (M. INTERMEDIA Link.)

Native. Fields and banks. Not common. May to August, St. Brelade's. St. Peter's. Samarès Meadows. Guernsey. Alderney. Sark. France. 4. M. COLLINA Hoffm.

Native. Fields and dry banks. Frequent. March to June. Guernsey. Alderney. Sark. France.

5. M. VERSICOLOR Reichb.

Native. Dry fields and banks. Common. April to June. Guernsey. Alderney. Sark. France.

An albino form, with white flowers and yellowish-green foliage, is common. The French botanists recognise several colour varieties. This seems to correspond with var. PALLIDA Bréb.

7. Lithospermum L.

1. L. arvense L.

Casual. On cultivated land. Bab. St. Ouen's Bay. J. Piquet, 1900!

8. Echinospermum Swartz.

1. E. Lappula L.

Casual.

St. Ouen's Bay. J. Piquet, 1898. Rubbish heap near George Town, 1899.

9. Echium L.

1. E. VULGARE L.

Native. Sandy fields. Very rare. June to August.

"Near St. Brelade and near the First Martello Tower to the west of St. Helier's." *Bab.* Still at First Tower in 1898. Near Plémont, 1900. "Waste sandy ground." *J. Piquet*, *sp.* 1866!

Guernsey (rare). Herm (frequent). Alderney (common). Sark. France.

 E. FLANTAGINEUM L. (E. VIOLACEUM Hook. and Arn., not of L.) Native. Roadsides and dry hillsides. Locally abundant. June, July.

Chiefly in the south and west of the island. St. Aubin's Bay. Portelet. St. Peter's. St. Ouen's Bay. L'Etac.

A handsome plant of the Mediterranean region, extending up the west coast of France as far as the Loire. Abundant and apparently native in Jersey, though not found in Normandy or Brittany. Casual in Guernsey (one plant). Only doubtfully indigenous in Cornwall (Watson). Plentiful about St. Helier's in Dr. Sherard's time.

#### Yerbenaceæ.

1. VERBENA.

1. V. OFFICINALIS L.

Native. Roadsides and dry waste places. Not common. June to September.

St. Helier's. St. Aubin's. St. Peter's. Grand Val. Mt. Orgueil. Rozel. Le Hocq.

Guernsey. Alderney (rare). Sark? France.

#### Labiatæ.

1. TEUCRIUM L.

1. T. SCORODONIA L.

Native. Cliffs and dry hillsides. Abundant. July to September.

Guernsey. Alderney. Sark. France.

2. Scutellaria L.

1. S. GALERICULATA L.

Native. Beside streams. Very rare. July to September. Moulin de Paul Millpond in St. Saviour's Valley.

Guernsey (rare). France.

2. S. MINOR Huds.

Native. Boggy places on the cliffs. Rare. June to August. St. Brelade's. *Bab.* La Moie, near the Quarries. *J. Piquet.* Bonne Nuit Bay. Bouley Bay.
Guernsey (very rare). France.

3. Marrubium L.

1. M. vulgare L.

Alien? Roadsides and waste places. Rare. June to September.

The Quenvais. J. Piquet, sp. 1866! St. Ouen's Bay. Gorey Common.

Guernsey (denizen and rare). Alderney. Sark (rare now, though *Bab.* was told that it was formerly very common). It seems safest to regard it as introduced in the Channel Islands. France.

4. GLECOMA L.

1. G. HEDERACEA L. (NEPETA GLECOMA Benth.) Native. Hedges and waste places. Not very common. April to June. St. Aubin's. St. Peter's. St. Saviour's Valley. Beaumont. Grouville.

Guernsey, Alderney and Sark, but nowhere common. France. Again I follow the spelling of "Das Pflanzenfamilien." The Greek word "glechon," however, which is said to be the derivation and means "Pennyroyal," is spelt by Liddell and Scott with an aspirate.

5. BRUNELLA L.

1. B. VULGARIS L.

Native. Fields, roadsides, and dry waste places. Frequent. June to August.

Guernsey. Alderney. Sark. France.

6. GALEOPSIS L. (Sub-genus TETRAHIT.)

1. G. TETRAHIT L.

Native or colonist. Hedges and cultivated fields. Not common. July to September.

St. Peter's. Bab. Wood near Trinity Manor. Near Giffard Bay. Rozel.

Guernsey (very rare). France.

7. LAMIUM L.

### 1. L. AMPLEXICAULE L.

Native or colonist. A common weed in cultivated ground. April to October.

Guernsey. Alderney. Sark. France.

 L. HYBRIDUM Vill. (L. DISSECTUM With. L. INCISUM Willd.) Native. Fields and banks. Not uncommon. March to July. St. Ouen's Bay. Beaumont. St. Peter's. Millbrook. Waterworks Valley. Gorey. La Rocque. Guernsey. Alderney. Sark. France.

3. L. PURPUREUM L.

Native. Ubiquitous. All the year round. Guernsey. Alderney. Sark. France. Rarely with pure white flowers.

#### 4. L. Album L.

Native. Shady hedges. Very rare. April to June.

St. Saviour's Valley. J. Piquet. "By-path leading to a field in Samarès Lanc: in quantity." J. Piquet, sp. 1898! Common in France.

 L. GALEOBDOLON Crantz. (GALEOBDOLON LUTEUM Huds.) Native. Shady thickets. Not common. May, June. St. Catharine's Bay. J. Piquet, sp. 1873! La Saline, St. John's. Giffard Bay. Frequent in France.

8. Leonurus L.

1. L. Cardiaca L.

Garden escape.

St. Catharine's Bay, Mont Félard, and Samarès Lane. J. Piquet. Rubbish heap at Bouley Bay. C. R. P. Andrews, 1900!

de.

9. BALLOTA L.

1. B. NIGRA L.

Native. Hedges and waste places. Not common. June to September.

St. Peter's. L'Etac. Gorey. Grouville. La Rocque. Bagot.

Guernsey. Alderney. France.

The Jersey plant is B. FETIDA Lam., which is the only form found in France. B. NIGRA L. included B. RUDERALIS Sw. Intermediate forms have been found in England. B. ALBA L. was apparently only a colour variety.

10. STACHYS L.

1. S. BETONICA Benth. (BETONICA OFFICINALIS L.)

Native. Cliffs and heathy hillsides. Rather local. June to September.

Portelet Bay. La Pulente. All along the cliffs in the north. Grand Val. St. Peter's Valley.

Guernsey (??) France.

2. S. palustris L.

Native. Damp, heavy soils. Not very common. July to September.

Five Oaks. St. Saviour's Valley. Waterworks Valley. St. Catharine's. Samarès.

Guernsey. Alderney. Sark. France.

× SILVATICA. (S. AMBIGUA Sm.)

Valley des Vaux. Rev. W. M. Rogers. Five Oaks. St. Saviour's Valley.

Guernsey. France.

3. S. SILVATICA L.

Native. Roadsides and hedges. Frequent all over the interior of the Island. June to September.

Guernsey. Alderney. Sark. France.

4. S. arvensis L.

Native or colonist. A frequent, though not very common, weed in cultivated ground. April to October. Guernsey. Alderney. Sark. France.

11. SALVIA L.

1. S. VERBENACA L.

Native. Sandy fields and dry waste places. Frequent. April to September.

St. Helier's. St. Ouen's Bay. St. Peter's. Gorey. Le Hocq. Guernsey. Alderney. France.

S. CLANDESTINA L. is an obscure plant recorded from near Pontae and St. Clement's by *Bab*. in the "Fl. Sarnica," as also from Guernsey. A specimen sent by Mr. Marquand to Mr. Arthur Bennett from Guernsey was so named by him. In Bentham's "Handbook of the British Flora" it is described as a marked variety or perhaps species "on a smaller scale, with narrower more cut leaves and smaller flowers," which replaces the type in S. Europe. Lloyd ignores it, and Grenier and Godron merge it into S. VER-BENACA. I have not seen any "marked variety" in Jersey, but the leaves are variable.

12. Melissa L.

1. M. officinalis L.

Garden escape. Roadside in the Waterworks Valley.

13. Origanum L.

1. O. vulgare L.

Garden escape? Hillsides and hedges. Rare. July, August. St. Peter's Valley. Bab. St. Brelade's and St. John's. J. Piquet, sp. 18721

Guernsey (denizen and ? extinct). France.

14. THYMUS L.

1. T. SERPYLLUM L.

Native. Dry hillsides and sands on the coast. Common. June to August.

Guernsey. Alderney. Sark. France.

15. LYCOPUS L.

1. L. EUROPÆUS L.

Native. Damp places. Not very common. July to September.

Grand Val. Waterworks Valley. La Saline, St. John's. Guernsey (rare). France.

16. Mentha L.

1. M. ROTUNDIFOLIA Huds.

Native. Damp, low-lying meadows. Local. July to October. La Haule. St. Peter's Valley. Waterworks Valley. Bouley Bay. Grouville. Bagot.

Guernsey. Sark (rare). France.

2. M. Alopecuroides Hull.

Native. Wet places. Very rare. July to October.

Wet place near the railroad, Greenville. Rev. W. M. Rogers, 1897. Roadside near Goose Green. J. Piquet, sp. 1860! labelled M. SILVESTRIS L.

This plant is ignored in the French Floras.

3. M. viridis L.

Garden escape. Near the Old Reservoir in Waterworks Valley.

4. M. AQUATICA L. (M. HIRSUTA Huds.) Native. Wet places. Frequent. July, August. Guernsey. Alderney. Sark. France.

5. M. arvensis L.

Native. Rough fields. Rare in my experience, but Mr. Piquet assures me that he has frequently seen it.

Meadow near Samarès. St. Ouen's. J. Piquet, sp. ! St. Laurence. S. Guiton !

Guernsey (rare). Sark. France.

6. M. Pulegium L.

Native. Damp places. Very rare, apparently extinct. July to September.

St. Peter's Marsh. J. Piquet, sp. ! Gorey Common. J. Piquet, sp. 1872!

Guernsey (one locality). France. Sark. C. P. Hurst.

#### Solanaceæ.

1. Lycium L.

1. L. barbarum L.

Planted in gardens: sometimes semi-naturalised near houses.

2. HYOSCYAMUS L.

1. H. NIGER L.

Native. Sandy waste places. Very rare and decreasing. June to August.

The Quenvais and St. Aubin's Bay. *Bab.* St. Ouen's Bay. J. Piquet, sp. 1866! Near Beaumont Station, 1896. St. Aubin's Road. F. Piquet, sp. 1871! Grève de Lecq. S. Guiton. Guernsey (very rare). Alderney (very rare). France.

3. Solanum L.

1. S. Dulcamara L.

Native. Hedges, thickets, and stony shores. Frequent. May to September.

Guernsey. Alderney. Sark. France.

2. S. NIGRUM L.

Native. Abundant in waste places and in cultivated ground. June to October.

Guernsey. Alderney. Sark. France.

Var. MINIATUM (Bernh.). La Pulente, St. Ouen's Bay, in very small quantity. *Bab.* gives "the Quenvais and other places," on the authority of *Mr. W. Christy*.

Lloyd states that four varieties of this plant come true from seed. (1) S. NIGRUM L., berries black. (2) S. OCHRO-LEUCUM Bast., berries pale yellow or greenish. (3) S. MINIATUM Bernh., berries red. (4) S. VILLOSUM LAM., berries orange-yellow. The leaves of var. MINIATUM are more deeply and acutely cut than those of the type.

#### Datureæ.

1. Datura L.

1. D. Stramonium L.

Casual. Nursery Gardens at Five Oaks. Abundant in a field of roots at Samarès in 1901.

#### Scrophulariaceæ.

1. VERBASCUM L.

1. V. THAPSUS L.

Native. Waste places and sandy fields. Thinly scattered all over the Island. June to August.

St. Aubin's. Portelet Bay. The Quenvais. St. Peter's. St. Ouen's Bay. L'Etac. Le Hocq. Guernsev. Sark. France. 2. V. NIGRUM L.

Native. Hedges and waste places. Not common. July to October.

La Haule Lane. The Quenvais. St. Peter's. Trinity Churchyard. St. Catharine's Bay.

Guernsey (very rare). Alderney. Sark. France.

2. Cymbalaria Baumg.

 C. muralis Fl. Wett. (Linaria Cymbalaria Mill.) Denizen, thoroughly naturalised. Frequent on walls. April to September. Guernsey. Alderney. Sark. France.

3. LINARIA JUSS.

1. L. ELATINE Mill.

Colonist. Cultivated ground. Not common. June to October. Mt. Orgueil Castle. Field near Victoria College. On the line at Pont Marquet.

Guernsey (frequent). Alderney (rare). Sark (" abundant "). France.

2. L. Pelisseriana Mill.

Native. Rough hillsides amongst Gorse. Very rare. June to August.

Still to be found in *Babington's* original locality, near St. Peter's Barracks. *Mr. S. Guiton* has discovered a second station at St. Brelade's where the plant is plentiful.

Brittany (very local and rare). W. France. Continental Europe from Belgium S.

3. L. VULGARIS Mill.

Native. Fields and hedges. Frequent rather than common. June to August.

Guernsey. Alderney (very rare). Sark. France.

4. L. REPENS Ait. (L. STRIATA DC.)

Native? Dry, rocky places. Very local. June to August.

Near Tabor Chapel, on the Quenvais. F. Piquet, sp. 1871! Hillside above Beaumont. Plentiful in a disused quarry in the St. Aubin's Valley.

Guernsey (rare). Sark. Newbould, 1841. France.

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4. ANTIRRHINUM L.

1. A. ORONTIUM L.

Colonist. A frequent weed in cultivated ground. June to September.

Guernsey. Sark. France.

2. A. majus L.

Occasionally semi-naturalised on walls, e.g. at Mt. Orgueil.

5. Scrophularia L.

1. S. AQUATICA L.

Native. Damp places. Very local. June to August.

Cargate Mill in St. Peter's Valley. *Bab.* St. Peter's Marsh. *J. Piquet.* St. Ouen's Pond. Beside the road leading down to L'Etac.

Guernsey (common). Alderney (rare). Sark. France.

2. S. NODOSA L.

Native. Damp, shady places. Rare. June to August.

St. Peter's Valley. J. Piquet, sp. ! Wood near Trinity Manor.

Guernsey (frequent). France.

3. S. Scorodonia L.

Native. Hedges and thickets. Abundant. May to August. Guernsey (Why does Mr. Marquand call it a colonist?). Normandy (local). Brittany (Liègard). W. France. W. and S. Europe, as far north as Kerry, Cornwall, Devon, and Belgium. One of the plants recorded for Jersey in Ray's Synopsis.

6. Sibthorpia L.

1. S. EUROPÆA L.

Native. Damp, shady banks on light soils. Frequent. June to August.

Valley des Vaux. St. Laurence Valley. Grand Val. Valley behind Beaumont. Grève de Lecq. L'Etac. Bonne Nuit Bay. Bouley Bay.

Guernsey (local). Sark. France. W. Europe, Greece, Crete.

1. V. HEDERIFOLIA L.

# 7. VERONICA L.

Native. Fields and roadsides. Abundant. March onwards. Guernsey. Alderney. France.

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2. V. polita Fr.
Native. Fields and banks. Common. March to October.
Guernsey. Alderney. France.
3. V. AGRESTIS L.
Native. Cultivated fields. Far less common than the last.
March to August.
Guernsey. Alderney. Sark. France.
4. V. BUXBAUMII Ten. (V. PERSICA Poir.)
Colonist. Cultivated fields and waste places. Frequent.
All the year.
Guernsey. Alderney. Sark. France.
5. V. ARVENSIS L.
Native. Walls and banks. Abundant. March to June.
Guernsey. Alderney. Sark. France.
6. V. SERPYLLIFOLIA L.
Native Fields, walls, roadsides. Common. April to
October.
Guernsey. Sark. France.
7. V. OFFICINALIS L.
Native. Heathy ground. Rather rare. June, July.
St. Aubin's. Noirmont Warren. Grand Val. Bouley Bay.
Alderney (very rare), Sark. Guernsey (rare). France.
8. V. CHAM.EDRYS L.
Native. Hedges and banks. Common. April to June.
Guernsey. Alderney. Sark. France.
9. V. SCUTELLATA L.
Native. Damp places. Very rare. May to August.
"St. Saviour's. Mr. B. Saunders." Bab. Marsh on
Grouville Common.
Guernsey (extinct). Normandy. W. France.
10. V. ANAGALLIS L.
Native. Wet places. Rare. June to September.
Bogs near Grouville and the Grève d'Azette. Bab. Meadow
near Samarès. St. Ouen's Pond. St. Catharine's Bay.
Guernsey (very rare). Alderney (rare). France.
11. V. BECCABUNGA L.
Native. Wet places. Rather common. May to August.
La Haule. St. Peter's Valley. St. Brelade's. Bellozanne
Valley. Grouville. Bagot, &c.
Guernsey. Alderney. Sark. Bab. France.

12. V. peregrina L.

Casual. Plentiful in the yard of Alphington House, St. Saviour's, and in the lane near. *Miss D. Higginson, sp. !* Probably introduced into the Nursery Gardens close by, where I have seen it. Introduced at Morlaix, in Brittany, and Mont de Maisan, in S.W. France (Lloyd). Grenier and Godron give Rennes, in Brittany, also. "Probably introduced from America" into Europe (Nyman), but Asa Gray says it looks like an introduced weed.

8. DIGITALIS L.

1. D. PURPUREA L.

Native. Woods, hedges, dry hillsides. Common. June to September.

Guernsey. Alderney (not common). Sark. France.

9. EUPHRASIA L.

1. E. OFFICINALIS L.

Native. Dry places and sandy fields. Locally common. June to September.

St. Brelade's Bay. The Quenvais. St. Ouen's Bay. Crabbé. Giffard Bay.

Guernsey. Alderney. Sark. France.

10. PARENTUCELLIA Viv. (EUPHRAGIA Griseb.)

1. P. VISCOSA, Caruel in "Parl. Fl. Ital.," iv. p. 482, 1885. (EUPHRAGIA VISCOSA Benth. TRIXAGO VISCOSA Reichb. BARTSIA VISCOSA L.)

Native. Damp places. Not uncommon. June, July.

St. Peter's. St. Ouen's Bay. Pont Marquet. Bouley Bay. Samarès.

Frequent in Guernsey, Alderney, and Sark. France.

The generic name seems hardly satisfactory. On grounds of priority PARENTUCELLIA Viv. (1824) must yield to TRIXAGO Stev. in "Mem. Soc. Nat. Mosc.," vi. p. 4 (1823), and the specific name will be TRIXAGO VISCOSA Reichb. in "Fl. Germ. Excurs.," p. 360 (1830). I owe this piece of information to Mr. F. N. Williams.

11. Odontites Pers.

1. O. RUBRA Pers. (BARTSIA ODONTITES Huds.) Native. Damp fields. Rare. June to September.

136

Field at St. Clement's. J. Piquet, sp. 1866! North end of St. Ouen's Bay.

Frequent in Guernsey and Alderney. France.

12. Rhinanthus L.

1. R. CRISTA-GALLI L.

Native. Meadows. Very local. May to July. St. Ouen's Pond. Bouley Bay. Samarès Meadows. Guernsey (local). France.

13. Pedicularis L.

1. P. SILVATICA L.

Native. Heathy ground and damp meadows. Not uncommon. April to June.

La Moie. St. Ouen's Pond. Grand Val. Grève de Lecq. Giffard Bay. Bouley Bay. Gorey.

Guernsey. Alderney. Sark. France.

The flowers are sometimes pure white.

#### Orobanchaceæ.

1. OROBANCHE G. Beck.

1. O. CÆRULEA Vill. (O. PURPUREA JACQ. PHELIPÆA TOURNEf.) Native. Parasitic upon Achillea Millefolium. Local. May to August.

Victoria College Cricket Field. Waterworks Valley. The Quenvais. St. Ouen's Bay. St. Catharine's Bay. La Rocque. Guernsey (rare). Alderney (frequent. A. MILLEFOLII Reichb.) France.

O. MILLEFOLII Reich. is given as a *doubtful* variety of O. CÆRULEA Vill. in the "Fl. Germ. Excurs.," of Reichenbach. In some Floras the anthers are said to be bearded at the summit, but bearded and glabrous anthers may be found, not only on the same plant, but in the same flower (!), and the character drawn from the shape of the corolla-lobes is quite unsatisfactory. The Alderney plant, which used to be called O. ARENARIA Walp., has been named O. MILLEFOLII Reich. by *Mr. Arthur Bennett.* O. ARENARIA is not found in Normandy, Brittany, or W. France.

2. O. MAJOR L. (O. RAPUM Thuill.) Native. Parasitic upon ULEX EUROPÆUS and CYTISUS Sco-PARIUS. Local. May to July. First Tower. Waterworks Valley. Bouley Bay. Bab. Abundant on the cliffs near La Moie.

Alderney. France.

3. O. MINOR Sm.

Native. Parasitic upon ERYNGIUM MARITIMUM, TRIFOLIUM STRIATUM, HIERACIUM PILOSELLA, and other plants. Local. June, July.

West Mount. St. Ouen's Bay. The Quenvais.

Guernsey. Alderney. Sark. France.

4. O. HEDERÆ Dubuy.

Native. Parasitic upon HEDERA HELIX. Rare. June, July. Mt. Orgueil Castle. E. D. Marquand! St. Helier's Harbour.

Guernsey. Alderney. Sark. France.

5. O. AMETHYSTEA Thuill. (O. ERYNGII Dubuy.)

Native. On the coast. Parasitic upon DAUCUS as a rule, more rarely upon ERYNGIUM. Local. June, July.

St. Ouen's Bay. Plémont. Pontac. W. M. Rogers. The Corbière. J. W. White.

Guernsey (rare). Alderney. Sark. Normandy (rather rare). W. France.

#### Plantaginaceæ.

1. Plantago L.

1. P. MAJOR L.

Native, Fields and roadsides. Common. May to October. Guernsey. Alderney. Sark. France.

2. P. LANCEOLATA L.

Native. Fields and roadsides. Abundant. April to September.

Guernsey. Alderney. Sark. France.

Var. TIMBALI (Jord.), a tall plant, with long spikes and broad, silvery unargins to the bracts, is common in fields of clover and rye-grass.

A variable species. A plant from St. Laurence had very short scapes and broad white margins to the leaves. In another from the Quenvais the inflorescence took the form of a close, compact panicle, most of the flowers being abortive. Not unfrequently clusters of heads are found in place of the normal spike. 3. P. MARITIMA L.

Native. Cliffs and rocks within reach of the spray. Frequent all round the coast. May to August.

St. Brelade's and Portelet Bays. The Corbière. L'Etac. Vinchelez. Gorey, &c.

Guernsey. Sark. France.

4. P. Coronopus L.

Native. Very abundant all round the coast, and often in the interior. April to October.

Guernsey. Alderney. Sark. France.

Most variable. The "principal named varieties and forms" have been collected by Mr. E. G. Baker in *Journ. Bot.*, 1897, p. 257. In the sands near First Tower there grew, in 1898, a number of plants in which the spike had been transformed into an irregular, shapeless panicle.

5. P. Psyllium L.

Casual. "Ballast hills, Jersey." Appendix to Hooker's "Students' Flora."

6. P. arenaria Waldst and Kit.

"A casual, sand-hills, Jersey." *Ibid.* Occurs in Normandy (Carteret!) and W. France. May possibly be rediscovered.

2. LITTORELLA L.

1. L. LACUSTRIS L. (L. JUNCEA Berg.)

Native. Wet places. Very local. June to August.

St. Peter's Marsh. Bab. Le Marais, Noirmont. J. Piquet, sp. 1872! St. Ouen's Pond.

Frequent in France.

### Rubiaceæ.

1. Sherardia Dill.

1. S. arvensis L.

Native. Fields, roadsides, and dry waste places. Frequent. May to September.

Guernsey. Alderney. Sark. France.

2. Asperula L.

 $1. \ A. \ odorata \ L.$ 

Garden escape. Near Rozel Manor. J. Piquet, sp. !

2. A. CYNANCHICA L.

Native. Sand-dunes. Very rare. July, August.

Alderney (very rare). France. 3. A. arvensis L. Casual. St. Ouen's Bay. J. Piquet, sp. 1898 ! 3. GALIUM L. 1. G. VERUM L. Native. Dry banks, sandy places on the coast. Common. June, July. Guernsey. Alderney. Sark. France. 2. G. Mollugo L. Native. Hedges and banks. Common. June to September. Guernsey. Alderney (very rare). Sark. France. G. MOLLUGO × VERUM. (G. OCHROLEUCUM Syme.) Rare. West Mount. The Quenvais. Portelet Bay. 3. G. SAXATILE L. Native. Dry banks; open, heathy ground. Not uncommon. June, July. Noirmont Warren. Bouley Bay. Waterworks Valley. Grand Val. &c. Guernsey (rare). Alderney (frequent). Sark. France. 4. G. PALUSTRE L. Native. Damp places. Common. May to August. Guernsey. Alderney. France. 5. G. APARINE L. Native. Fields, hedges, and waste places. Common. June to August. Guernsey. Alderney. Sark. France. 4. Rubia L. 1. R. PEREGRINA L. Native. Bushy places near the sea. Local. June to August. Noirmont. The Corbière. The Quenvais. Grève de Lecq.

Normont. The Corbière. The Quenvais. Grève de Lecq. St. Catharine's Bay.

Alderney (very rare). Sark. C. P. Hurst. Normandy (rare). W. Europe, as far north as Wales.

#### Caprifoliaceæ.

1. SAMBUCUS L.

1. S. NIGRA L.

Native on the cliffs, planted in woods and hedges. Frequent. June.

Guernsey. Alderney. Sark. France.

2. LONICERA L.

1. L. Periclymenum L.

Native. Hedges, woods and thickets on the cliffs. Frequent. June to August.

Guernsey. Alderney. Sark. France.

#### Valerianaceæ.

1. VALERIANELLA Haller.

1. V. OLITORIA Poll.

Native. Walls and banks. Frequent. May, June.

Grouville. St. Peter's. L'Etac. St. Clement's, &c.

Guernsey. Alderney (rare). France.

Less common than V. CARINATA, as is the case in Guernsey and Alderney. The two species are sold in the spring in the Jersey market under the name of "boursette," and are an excellent salad.

2. V. CARINATA Loisel.

Native. Walls, dry fields and banks. Common. May, June.

Guernsey. Alderney. Sark. France.

3. V. ERIOCARPA Desv.

Native. Sandy fields and banks. Rare? May, June.

The Quenvais and St. Clement's. Mr. J. W. White.

Alderney (locally plentiful). Normandy (rare). W. France.

2. Centranthus DC.

1. C. ruber DC.

Denizen. Walls and rocks. Locally abundant, forming enormous masses of colour in June. Often with white flowers.

Slopes of Fort Regent. St. Aubin's. Gorey, &c.

Guernsey. Alderney. France. Native in Central and S. Europe.

#### Dipsacaceæ.

1. DIPSACUS L.

1. D. SILVESTRIS Huds.

Native. Banks and waste places. Rare. June to August. Near Grouville. *Bab.* St. Ouen's Bay. Pontac. Samarès. Guernsey (rare). Sark. France.

2. SUCCISA Coult.

1. S. PRATENSIS Moench. (SCABIOSA SUCCISA L.)

Native. Cliffs and rough hillsides. Local. July to October. La Pulente. Grosnez Castle. "Round the north and west coasts." J. Piquet. Common in France.

3. Scabiosa L.

1. S. maritima L.

Naturalised alien. Well established on a dry hillside in St. Ouen's Bay in company with CENTAUREA PANICULATA, where it has been known for many years. Probably introduced long ago with lucerne seed. July, August.

A plant of the Mediterranean region, very local in W. France and not native north of La Gironde (Lloyd): subspontaneous on the coast of Brittany about Brest (Liègard, "Flore de Bretagne," an unreliable book). In the face of these facts as to the distribution, it can hardly be maintained that it is indigenous in Jersey. St. Ouen's Bay is prolific in casuals and more or less naturalised aliens.

Resembles S. COLUMBARIA, but belongs in reality to a different section of the genus (VIDUA Coult.), which contains only 2 species and is thus defined by Lowe ("Flora of Madeira"): "Tube of involucre 8-ribbed throughout from top to bottom : limb short, *spongy*, *inflexed* : calyx-tube sheathed at the base : limb narrow 5-setigerous, *stipitate*." Now united with S. ATROPURPUREA L., a form with larger and deeper-coloured flowers, which is the origin of the annual Garden Scabious. The Jersey plant is var. FALLIDIFLORA Lowe.

#### Campanulaceæ.

1. JASIONE L.

1. J. MONTANA L.

Native. Dry banks and sandy fields. Common. March to August.

Guernsey. Alderney. Sark. France.

#### Compositæ.

1. EUPATORIUM L.

1. E. CANNABINUM L.

Native. Damp places. Frequent. June to September Guernsey. Sark. France.

2. Solidago L.

1. S. VIRGAUREA L.

Native. Rough hillsides on the coast. July, August.

La Moie. Crabbé. La Saline, St. John's. Bouley Bay. Gorey.

Jersey only. Common in France.

3. Bellis L.

1. B. PERENNIS L.

Native. Fields and meadows. Common. February to November.

Guernsey. Alderney. Sark. France.

Abnormal forms sometimes occur, (1) with "fasciated" heads of flowers (in a damp meadow near Grouville), (2) with no ray-florets (on a dry bank in Victoria College grounds).

4. ERIGERON L.

1. E. ACRE L.

Native. Dry, sandy places. Rare. June to September. The Quenvais. St. Ouen's Bay, near the Pond.

Very rare in Guernsey and Alderney. France.

A glabrate form (var. GLABRUM Corb.) occurs on the Quenvais.

2. E. canadense L.

Casual. St. Helier's. J. Piquet and S. Guiton, sp. !

5. Filago L.

1. F. GERMANICA L.

Native. Dry waste places Rare. July to September.

West Mount. The Quenvais. Bab. Sorel Point. Grouville.

Guernsey. Alderney? Sark. France.

2. F. MINIMA Fr.

Native. Dry hillsides and sand-dunes. Common. June, July.

Guernsey. Alderney. Sark. France.

3. F. gallica L.

Casual? Dry sandy fields. Very rare.

Mr. C. R. P. Andrews informs me that there are specimens in Herb. Brit. Mus. from Bouley Bay collected by Dr. Bull in Sept., 1875.

Sark. Mr. C. P. Hurst, 1902! Common in France.

### 6. GNAPHALIUM L.

1. G. ULIGINOSUM L.

Native. Damp places. Frequent. June to October.

St. Ouen's Bay. St. Catharine's Bay. About St. Martin's. Samarès. The Old Reservoir in Waterworks Valley. Bouley Bay.

Alderney (very rare). Sark. Guernsey. France.

Var. PILULARE (Wahl.). Achenes papillose instead of smooth. Waterworks Valley.

Very common in Normandy (Corbière).

2. G. LUTEO-ALBUM L.

Sporadic: possibly native. Damp sandy places. Rare. July, August. Southern extremity of St. Ouen's Bay and roadside near Petit Port. *Bab*. Appears occasionally in gardens in St. Helier's.

Guernsey (rare). Normandy (not common). W. France. Widely distributed over Continental Europe : a weed in "all warm countries" (Hooker).

Cf. Ray's Synopsis, p. 182: "Elichrysum sylvestre latifolium capitulis conglobatis. C. B. Pin. 264. it. Gnaphalium majus lato oblongo folio. Ej. Pin. 263. . . . In the Isle of *Jersey*, on dry banks and walls very common; Dr. Sherard." If G. LUTEO-ALBUM was the plant intended by Ray, it is strange that it should have become so rare. There are plenty of "dry banks and walls" still in Jersey, and G. LUTEO-ALBUM is a plant of *damp* sandy places. On the other hand, it is difficult to see to what other plant he can have referred.

3. G. undulatum L.

Naturalised alien. Rocks and dry sunny places. Locally common. July to September.

West Mount. New road from Beaumont to St. Peter's. La Haule Lane. Valley behind St. Aubin's.

A Cape of Good Hope plant, long naturalised at Cherbourg

and Flamanville, in Normandy (Corbière), and at several places in Brittany (Lloyd). The determination of the plant has been confirmed by Mr. J. G. Baker (Bot. Soc., Edinburgh, Jan., 1895, p. 345), and by Prof. J. Freyn, of Prague (Bot. Exch. Club Report for 1897).

Stems 1-2 feet, erect, subligneous below. Leaves linearlanceolate, green above, cottony beneath, decurrent. Heads of flowers very numerous, agglomerated at the ends of the many branches into which the stem is divided in its upper part, the whole forming a large corymbiform panicle.

### 7. INULA L.

1. I. CONYZA DC. (CONYZA SQUARROSA L.).

Native. Dry banks. Very rare. July to September.

"Lane above Beaumont. Mr. W. Christy." Bab. "St. Saviour and St. Clement: rare." J. Piquet ! sp. 1872.

Guernsey (very rare). Sark. Normandy. W. France.

2. I. CRITHMOIDES L.

Native. Cliffs and rocks by the sea. Rare. July to September.

Near Grosnez Castle. Bouley Bay. Mr. S. Guiton.

Guernsey. Alderney. Sark. Normandy (rare). W. France. W. Europe.

3. I. Helenium L.

Garden escape in the Swiss Valley. Queen's Valley, Grouville. S. Guiton.

8. PULICARIA Gærtn.

1. P. DYSENTERICA Gærtn.

Native. Damp places. Common. July to September. Guernsey. Alderney. Sark. France.

2. P. VULGARIS Gærtn.

Native. Marshy places. Extinct. July to September.

Bog near St. Clement's. Bab. Marshy spot on Gorey Common. J. Piquet, sp. 1862!

Guernsey (extinct). Sark (Dr. Bull). France.

9. BIDENS L.

### 1. B. CERNUA L.

Native. Damp places. Very rare, ? extinct. July to September.

St. Laurence Marsh (Goose Green). J. Piquet, sp ! 1852. France.

2. B. TRIPARTITA L.

Native. Damp places. ? Extinct. July to September.
"St. Saviour's Valley. Mr. B. Saunders." Bab. Le Marais,
St. Ouen's, and marsh at St. Clement's. J. Piquet, sp. 1852!
St. Ouen's Pond. J. Piquet, sp. !
Guernsey (extinct). France.

10. ANTHEMIS L.

1. A COTULA L.

Native or colonist. Cultivated fields. Not common. June to September.

George Town. Bouley Bay. Giffard Bay.

Guernsey. Alderney (one plant). Sark. France.

2. A. nobilis L.

Native. Common in damp, grassy places. June to September.

Guernsey. Alderney. Sark. France. W. Europe.

3. A. arvensis L.

Colonist? Cultivated fields. Very rare. June to August.

St. Ouen's Bay. J. Piquet, sp. 1900! the only specimen I have seen. Babington says "common," and Mr. Piquet says the same, but a specimen of his collecting in the Victoria College Herbarium is A. COTULA. The two plants are often confused.

Guernsey (rare). Alderney (Bab). Sark. France.

### 11. ACHILLEA L.

### 1. A. MILLEFOLIUM L.

Native. Fields, dry banks and waste places. Common. July to September.

Guernsey. Alderney. Sark. France.

#### 12. DIOTIS Desf.

1. D. CANDIDISSIMA Desf.

Native. Sandy sea-shores. Now extinct. August, September.

Formerly grew upon the beach near St. Ouen's Pond: destroyed, according to Mr. Piquet, by the building of the seawall some years ago. "Becoming rare in 1876. J. C. Melvill." Mr. Arthur Bennett in lit. Mr. A. E. Lomax gathered it in 1882.

Alderney. *Bab.* It is hard to see how he could have mistaken it, but it has never been seen by any one else. Rare in Normandy, Brittany, and W. France. A monotypic genus, widely dispersed along the shores of the Mediterranean and the European and African coasts of the Atlantic. Becoming rarer north of the English Channel, and probably doomed to extinction (Watson, Cybele Brit., ii. 95). Still locally plentiful in Ireland. See a Paper on the British distribution, by Mr. C. P. Hurst, in "Memoirs of the Manchester Literary and Philosophical Society, 1901–1902," vol. 46. Pt. 1.

## 13. MATRICARIA L.

- 1. M. INODORA L. (CHRYSANTHEMUM INODORUM L.)
  - Native. Fields and waste places. Frequent. July to October.

Guernsey. Alderney. Sark. France.

- Var. SALINA Bab. (Fide Arthur Bennett.)
  - Native. Rocks, banks, and sandy places on the coast. Abundant. Almost all the year round.

A stout, strong-growing perennial or biennial, with fleshy leaves forming thick tassels when dry, with prominent mid-ribs beneath. Stems stout, shining, ribbed, often reddish-purple. Ray florets shorter and broader, disc broader.

A distinct-looking form, just the same as the plant so common on the coast of W. France, which the French botanists call M. MARITIMA L. *Mr. A. Bennett* informs me that M. MARI-TIMA L. is more woody at the base and has different leaves, and the authorities of the British Museum regard it as a very doubtful plant. Lloyd tested his M. MARITIMA by cultivation and found that it produced ordinary M. INODORA from seed in the second year.

2. M. CHAMOMILLA II

Native. Cultivated fields. Not very common. June to August.

Grouville and St. Catharine's Bay. *Bab.* St. Aubin's Bay. Valley des Vaux. Samarès. Guernsey. Sark. France.

14. CHRYSANTHEMUM L.

- 1. C. SEGETUM L. Colonist? Cultivated fields and waste places. Frequent. June to September. Guernsey. Alderney. Sark. France.
- 2. C. LEUCANTHEMUM L. (LEUCANTHEMUM VULGARE Lam.) Native. Common on the cliffs. May to August. Guernsev. Aldernev. Sark. France.
- 3. C. Parthenium Pers.

Hedges near houses. An occasional garden escape.

4. C. vulgare Bernh. (Tanacetum vulgare L.)

Denizen. Occasionally naturalised in hedges. July to September.

The Quenvais. J. Piquet. Hill above Grouville. St. John's Road.

Guernsey. Sark. France.

Tanacetum L. forms a section of the genus  ${\tt Chrysanthemum}.$ 

15. Artemisia L.

1. A. VULGARIS L.

Native. Hedges and waste places. Common. June to September.

Guernsey. Alderney. Sark. France.

2. A. Absinthium L.

Denizen. Waste places near houses. Very rare. July to September.

St. Helier's. *Bab. Mr. Piquet* says frequent, but I have only seen a single specimen in a quarry close to a house at La Rocque.

Guernsey (denizen). Alderney. Sark (apparently common). Normandy (rare and suspicious). W. France.

16. TUSSILAGO L.

1. T. FARFARA L.

Native. Fields on heavy soils. Rare. February to April.

Field at St. John's. J. Piquet, sp. ! Field near Swiss Valley, 1902. Mont & l'Abbé. S. Guiton. Blanche Pierre, Trinity. S. Guiton !

Guernsey (rare). Rather local in France.

17. PETASITES GÆRTN.

1. P. fragrans Presl. (Nardosmia fragrans Reichb.) Hedges and waste places near houses. Naturalised in many

places. December to March. Naturalised in Guernsey, Alderney, and Sark. Naturalised also in Normandy and W. France. Native in the Mediterranean region.

 P. OFFICINALIS Mœnch. (P. VULGARIS Desf.)
 Native. Sides of brooks. Very local. March, April. Between Longueville and Samarès. Near Rozel. S. Guiton ! Mont au Prêtre. S. Guiton. Very local in Normandy and Brittany, and not common further south.

18. Senecio L.

1. S. VULGARIS L.

Native. A common weed. All the year round.

Guernsey. Alderney. Sark. France.

- Var. RADIATUS Koch. Sand-dunes and sandy fields. Locally abundant. March to June; a true spring plant.
  - The Quenvais. St. Brelade's Bay. St. Ouen's Bay. L'Etac. Pontac.

Guernsey (rare). Normandy (rare). W. France.

In dry seasons numbers of minute seedlings appear, from 1 to 3 inches high, with 1 to 3 heads of flowers.

2. S. SILVATICUS L.

Native. Dry rocks and banks. Very common. June to August.

Guernsey. Alderney. Sark. France.

3. S. JACOBÆA L.

Native. Fields and roadsides. Frequent rather than common. July to September.

Guernsey. Alderney. Sark. France.

19. CARLINA L.

1. C. VULGARIS L.

Native. Hillsides on the coast. Not common. July to September.

The Quenvais. The Corbière. Bonne Nuit Bay. Grosnez Guernsey (rare). Alderney. Sark. France.

20. Arctium L.

1. A. MINUS Bernh.

Native. Hedges and waste places. Scattered all over the Island, but not very common. July to September. Guernsey. Alderney. Sark. France.

### 21. CARDUUS L.

1. C. PYCNOCEPHALUS L. VAR. TENUIFLORUS (Curt.) Native. Dry sandy places. Abundant. June to August. Guernsey. Alderney. Sark. France.

2. C. NUTANS L.

Native or colonist. Fields and waste places. Rather rare. July, August.

St. Aubin's. Portelet Bay. St. Peter's Barracks. L'Etac. Guernsey, Alderney, Sark. France.

22. CIRSIUM Scop.

- 1. C. LANCEOLATUM Scop. (CNICUS LANCEOLATUS Willd.) Native. Fields and waste places. Frequent. June to September. Guernsey. Alderney. Sark. France.
- 2. C. PALUSTRE Scop. (CNICUS PALUSTRIS Willd.) Native. Damp meadows. Very common. June to August. Guernsey. Alderney. Sark. France. Often with white flowers.
- C. ANGLICUM Lobel. (CNICUS PRATENSIS Willd. CARDUUS ANGLICUS Lam.) Native. Damp, marshy places. Very rare. June to July. St. Ouen's Pond (1898). Samarès Miles. J. Piquet, sp. ! 1872.

Normandy. W. France. W. Europe.

- 4. C. ACAULE All. (CNICUS ACAULIS Willd.) Native. Dry hillsides. Very local. July to September. The Quenvais slopes of St. Ouen's Bay. J. Piquet, sp. ! "The Quenvais. Mr. W. Christy." Bab. Alderney (locally abundant). France.
- C. ARVENSE Scop. (CNICUS ARVENSIS Hoffm.) Native. Fields, roadsides, waste places. Common. June to September. Guernsey. Alderney. Sark. France,

Var. SETOSUS (Bieb.). "Cornfields. St. Aubin's Bay. J. Piquet," confirmed by Mr. A. Bennett. "Goose Green. Rare." J. Piquet. Guernsey (very rare).

23. Silybum Gærtn.

1. S. Marianum Gærtn. (Carduus Marianus L. Mariana lactea Hill.)

Denizen. Fields, roadsides, waste places. Rare. June to August.

Abundant at the south-east corner of Mt. Orgueil: sporadic elsewhere, *e.g.*, in St. Ouen's Bay.

Indigenous in the Mediterranean region, introduced elsewhere in Europe. Normandy (rare). W. France (not common). Casual in Guernsey.

24. Serratula L.

1. S. TINCTORIA L.

Native. Cliffs on the north coast. Local. July to September.

La Saline, St. John's. Grève de Lecq. Crabbé. Normandy. W. France.

25. Centaurea L.

1. C. NIGRA L.

Native. Fields, cliffs, and sandy places. Local. June to August.

The Quenvais. St. Ouen's Bay. Frequent in the north of the Island. St. Catharine's Bay. Samarès Meadows. Guernsey. Alderney. Sark.

Very variable. The cliff form is very constant, and very different from the form of open, sandy fields. The bracts vary in colour from almost black to a delicate fawn-colour. The leaves also vary much in breadth. The forms seem inextricable at present, even with the help of Mr. F. N. Williams' elaborate examination in his "Prodromi Floræ Britannicæ Specimen," and I follow Mr. Arthur Bennett's advice and "call them all C. NIGRA for safety."

2. C. Scabiosa L.

Native? perhaps only a casual. Sandy waste places. Very rare. July, August.

The Quenvais. J. Piquet, sp. 1868! North end of St. Ouen's Bay.

Alderney (frequent). France.

3. C. Cyanus L.

An occasional casual since Babington's time.

4. C. paniculata L.

Naturalised alien. Dry, sandy fields. Rare. July, August.

In profusion over a circumscribed area on a hillside in the north of St. Ouen's Bay, where it has been known for over 20 years: probably introduced, as Mr. Piquet suggests, with lucerne seed.

A genuine S. European species, not recorded, even as an introduction, from any locality in Normandy, Brittany, or W. France. In face of this it is impossible to claim it as a native. Not mentioned in the "Flora Sarnica."

5. C. ASPERA L.

Native or completely naturalised. Dry, sandy fields and hillsides. July to September.

St. Ouen's Bay, where it grows in dense masses in the north. L'Etac. La Rocque.

A common S. European species. In W. France it is very common in Charente-Inférieure, frequent in La Vendée, very rare in Loire-Inférieure, beyond which Lloyd regards it as introduced. "Very rare and doubtless introduced in Normandy" (Corbière). In Guernsey Marquand ranks it as a "denizen: local and rare." In Alderney there are "two patches." In the former island it has been known for over a century, and in Smith's "English Flora" (1825) it is recorded (sub C. ISNARDI) on the authority of Dickson from "meadows and pastures in the isle of Jersey," though Babington casts doubt on the record. Just possibly native, but St. Ouen's Bay is prolific in casuals and semi-naturalised aliens.

6. C. Calcitrapa L.

Extinct: probably a naturalised alien, but it is impossible to say now.

Near St. Peter's Marsh. Bab. Near the Second Martello Tower, St. Aubin's Bay. J. Piquet, sp. 1870!

Casual in Guernsey. Common in Normandy and W. France. 7. C. solstitialis L.

Casual, and not seen for many years.

Sands of St. Ouen's Bay, near St. Helier's. Bab. Occasionally in sandy fields on the coast. J. Piquet.

26. CHICHORIUM L.

1. C. INTYBUS L.

Colonist. Cultivated fields and waste places. Rare. June to August.

St. Ouen's Bay. Five Oaks. Samarès.

Rare in Guernsey. Alderney and Sark. France.

27. LAPSANA L.

1. L. COMMUNIS L.

Native. Hedges and roadsides. Common. June to September.

Guernsey. Alderney (one plant). Sark. France.

28. Hypochæris L.

1. H. GLABRA L.

Native. Dry banks and rocky places in the west. May, June. Between St. Aubin's and Portelet Bay. On the cliffs between St. Brelade's and the Corbière. Near St. Peter's Church. L'Etac.

Guernsey. Alderney. Normandy (rather rare). W. France. Var. BALBISII (Loisel), which has *all* the achenes beaked, has been recognised by many authors as a mere figment. Heads representing the type and the variety may be found on the same plant. Lloyd raised the type from seeds of the variety, and even found starved plants on the sands of the west coast of France which had no beaked fruits at all.

2. H. RADICATA L.

Native. Waysides, meadows, sandy fields. Abundant. May to September.

Guernsey. Alderney. Sark. France.

3. H. MACULATA L.

Native. Cliffs on the coast. Very rare. July, August.

Plentiful in a gully leading down to the sea close to Grosnez Castle, where it grows with the Cowslip—the only locality for either plant in the Channel Islands.

One of the three native Jersey plants not found in either Normandy or Brittany. Rare in W. France, and not north of the Loire (Lloyd). A remarkably local plant throughout W.

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Europe, appearing in an inexplicable manner in places widely separated from one another. The locality seems quite beyond suspicion: it is one of the wildest and least frequented spots in the island. Grosnez Castle is a ruin of venerable antiquity, of the history of which nothing is known.

### 29. LEONTODON L.

1. L. HIRTUS L. (THRINCIA HIRTA Roth.)

Native. Roadsides, dry fields, cliffs on the coast. Common. June to September.

Guernsey. Alderney. Sark. France.

### 2. L. AUTUMNALIS L.

Native. Fields, waysides, dry places. Common. July to October.

Guernsey. Alderney. Sark. Bab. France.

30. Picris L.

# 1. P. HIERACIOIDES L.

Native. Dry banks and rocks. Local. July, August.

The Quenvais near Pont Marquet. Hillsides beyond St. Ouen's Pond. J. Piquet. Rozel Bay. St. Catharine's Bay. Samarès Meadows.

Alderney. Herm. Normandy. W. France.

Three to 5 feet on the Quenvais—a handsome plant when the flowers are expanded.

 P. ECHIOIDES L. (HELMINTHIA ECHIOIDES Gærtn.) Native. Heavy soils. Rare. July to September. Samarès Meadow. Le Hocq. Pontac. Guernsey (very local). Alderney. France.

31. Tragopogon L.

1. T. porrifolius L.

Denizen. Naturalised in several places on Fort Regent, and well established in the turf of St. John's Churchyard.

### 32. TARAXACUM Hall.

 T. OFFICINALE Web. (LEONTODON TARAXACUM L.) Native. Fields, meadows, roadsides, &c. Common. Most of the year.

Guernsey. Alderney. Sark. France.

Var. ERYTHROSPERMUM (Andrz). Less robust. Leaves runcinate, deeply pennatifid or pennatipartite, with long narrow segments, the lowest of which are almost setaceous. Fruit brick-red.

Grosnez Castle.

Var. LÆVIGATUM DC. "Plante très-petite, à feuilles courtes, profondément roncinées, pennatifides : les primaires obovales ; écailles de l'involucre le plus souvent chargées, vers la pointe dorsale, d'une petite protubérance calleuse. Fruits brunâtres." (Brébisson.) Perhaps only a state of var. ERYTHROSPERMUM.

A beautiful little plant, common on the sands of the Quenvais and in sandy fields near La Rocque. April to June. Var. PALUSTRE DC. Leaves much less divided, sinuate-dentate or sub-entire. Exterior bracts adpressed.

Common in swampy places. A rather marked form with very narrow leaves and curved, decumbent scapes occurs at St. Ouen's Pond and La Moie. ?T. UDUM Jord.

33. Sonchus L.

1. S. OLERACEUS L.

Native. A common weed. July to November.

Guernsey. Alderney. Sark. France.

2. S. Asper Hoffin.

Native. Cultivated fields and waste places. Common. July to November.

Guernsey. Alderney. Sark. France.

3. S. arvensis L.

Colonist? Frequent on cultivated land. July to September. Guernsey. Alderney. Sark. France.

34. Crepis L.

1. C. TARAXACIFOLIA Thuill. (BARKHAUSIA DC.) Native. Walls, roadsides, and dry pastures. Common. May to July.

Alderney (common). Common all over France.

2. C. VIRENS L.

Native. Fields, roadsides, dry places generally. Very common. June to October.

Guernsey. Alderney. Sark. France.

There are two chief forms: (1) C. DIFFUSA DC., a small, slender plant with decumbent stems, branched from the rootstock, abundant on the sands of the coast. (2) C. AGREȘTIS

W. and Kit., erect and often robust, much resembling C. BLENNIS, common in cultivated fields.

3. C. BIENNIS L.

Colonist? Hedges and waste places. Not common. May to June.

Fort Regent, Gorey, and Anne Port. Mr. J. W. White. St. Brelade's Bay.

Guernsey (very rare). Normandy (frequent). W. France (rare and introduced, *Lloyd*).

#### 35. Hieracium L.

1. H. Pilosella L.

Native. Walls and dry banks. Not very common (the type). May to July.

Bellozanne Valley. La Moie Heath. Grand Val.

Var. PILOSISSIMUM Wallr. (H. PELETERIANUM Mér.) More robust, forming thick tufts: stolons very short: leaves narrower: heads larger: plant covered with long silky hairs. Abundant on dry banks and hillsides, especially in the south and west.

Guernsey. Alderney. Sark. Normandy (rare). W. France. 2. H. RIGIDUM Hartm. (H. TRIDENTATUM Fr.)

Native? Roadsides and thickets. Very rare. July, August. Waterworks Valley, above the Old Reservoir (var. ACRIFOLIUM Dahlst. *Fide Rev. W. M. Rogers.*) Babington's record of "H. LÆVIGATUM Willd. Koch," from the Quenvais may also refer to this plant.

Frequent in France.

- 3. H. UMBELLATUM L.
  - Native. Heathy hillsides. Rare (the type). July, August. Near Portelet Bay. St. Peter's Valley.

Guernsey. Alderney. Sark. France.

Var. LITTORALE Lindeb. (*Fide F. J. Hanbury.*) A subsucculent maritime form, of shorter growth than the type. Leaves very variable, sometimes remarkably broad. Not uncommon on the cliffs in the north and east, and locally abundant, *e.g.*, at Crabbé.

Guernsey (Mr. C. R. P. Andrews). Probably occurs in Alderney and Sark. The French botanists say nothing about it.

# ADDITIONAL CASUALS.

- XANTHIUM STRUMARIUM L. Quarry opposite Tesson Mill, St. Peter's Valley. J. Piquet, 1899 sp. !
- ERYSIMUM STRICTUM DC. ? St. Ouen's Bay. 1900!
- ÆGILOPS CYLINDRICA S. and S. Mr. Dankaster's Farm, St. Ouen's Bay. 1901!
- CARDUUS. Mr. Dankaster's Farm, St. Ouen's Bay. 1900!
- SILENE DICHOTOMA L. Mr. Dankaster's Farm, St. Ouen's Bay. 1901!
- SETARIA GLAUCA Beauv. Among potatoes at La Moie. 1901!

# LIST OF ERRORS, AMBIGUITIES, AND PLANTS RECORDED FOR JERSEY ON INSUFFICIENT AUTHORITY.

NITELLA TRANSLUCENS Ag. Ditches near St. Ouen's Pond and in St. Peter's Marsh. J. Piquet.

CHARA HISPIDA L. Mr. B. Saunders.

C. GRACILIS Sm. "In Sir Phil. Carteret's fish-ponds in the Isle of Jersey, Dr. Sherard," if Smith was right in referring Ray's "Chara minor caulibus et foliis tenuissimis" to this plant.

ASPIDIUM ACULEATUM Sw. Near Grouville. Bab.

"EQUISETUM FLUVIATILE L." Prof. La Gasca.

RUPPIA MARITIMA L. Jersey. Mr. B. Saunders.

SPARGANIUM SIMPLEX Huds. Along streams at St. Clement's, rare. J. Piquet.

PHLEUM BOEHMERI Willd. Jersey. Mr. B. Saunders.

GASTRIDIUM LENDIGERUM Gaud. Ditto.

AVENA PRATENSIS L. The Quenvais. J. Piquet. The Jersey plant is A. PUBESCENS Huds.

A. STRIGOSA Schr. Jersey. Prof. La Gasca.

SPARTINA STRICTA Roth. Jersey. Mr. B. Saunders.

BRIZA MEDIA L. Ditto.

POA MEMORALIS L. Jersey. *Bab.* Mr. Piquet gives "P. NEMOROSA L." as frequent, but his herbarium specimen is a weak form of P. TRIVIALIS L. There is a specimen of P. NEMORALIS at the Maison St. Louis from the grounds of the College.

P. COMPRESSA L. Jersey. Mr. B. Saunders.

GLYCERIA AQUATICA Sm. Jersey. Prof. La Gasca.

SCHLEROCHLOA PROCUMBENS Beauv. Jersey. Mr. B. Saunders.

S. BORRERI Bab. Marshy places, St. Clement's Bay: rare. J. Piquet.

FESTUCA LOLIACEA Huds. Meadows. Bab.

BROMUS ERECTUS Huds. Le Bourg, Grouville, rare. J. Piquet.

B. ARVENSIS L. St. Peter's Marsh. J. Piquet.

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- B. RACEMOSUS L. Common. Bab.
- ELYMUS ARENARIUS L. "Jersey, Mr. W. Christy." Bab.
- CYPERUS FUSCUS L. Jersey. Prof. La Gasca.
- ELEOCHARIS ACICULARIS R. Br. Ditto.
- SCIRPUS PAUCIFLORUS Lightf. St. Ouen's Pond. Bab. and Piquet. I have searched for it there in vain.
- S. HOLOSCHENUS L. St. Ouen's Bay. Mr. B. Saunders.
- S. LACUSTRIS L. St. Clement's. *Bab.* Samarès Miles and St. Ouen's Pond. *J. Piquet.* I should place the Jersey plant under S. TABERNÆMONTANI Gmel.
- CAREX DIVULSA Good. Near La Moie Signal Post. Bab.
- "C. CÆSPITOSA L." Jersey. Mr. B. Saunders.
- C. PALLESCENS L. Ditto.
- JUNCUS COMPRESSUS Jacq. Marshes near the Grève d'Azette. *Bab.* Marsh at St. Clement. *J. Piquet.* These probably refer to the same locality, between Samarès and Le Hocq, where J. GERARDI still grows.
- ORNITHOGALUM UMBELLATUM L. One single plant, on the Quenvais. J. Piquet.
- SALIX CAPREA L. Jersey, Mr. W. C. Trevelyan. Bab.
- POLYGONUM MARITIMUM L. St. Aubin's Bay, very rare. J. Piquet. Mr. C. E. Salmon informs me that it is recorded in the third edition of Sowerby as having been found in St. Ouen's Bay by Mr. W. Newbould. Mr. Piquet's own specimen seems to me to be nearer P. RAII. The Guernsey plant is more like real P. MARITIMUM.
- P. LAXUM Reich. Near St. Brelade's. Bab.
- CHENOPODIUM HYBRIDUM L. Trinity, rare. J. Piquet, 1898.
- C. RUBRUM L. Jersey. Prof. La Gasca.
- SALICORNIA HERBACEA L. Jersey. Mr. B. Saunders.
- SUÆDA FRUTICOSA Forsk. Waste ground at Havre de Pas. J. Piquet, 1898.
- STELLARIA NEMORUM L. Mr. B. Saunders.
- S. GLAUCA With. St. Peter's Marsh. Mr. B. Saunders.
- HOLOSTEUM UMBELLATUM L. Prof. La Gasca.
- ARENARIA TENUIFOLIA L. Near Petit Port. Bab.
- ILLECEBRUM VERTICILLATUM L. Mr. B. Saunders.
- SILENE NOCTIFLORA L. La Haule. Bab.
- CUCUBALUS BACCIFER L. Heights above Bouley Bay. J. Piquet.

- DIANTHUS DELTOIDES L. Near Bouley Bay. J. Piquet.
- D. CÆSIUS Sm. J. Piquet, 1898. The plant afterwards proved to be D. GALLICUS DC.
- CERATOPHYLLUM DEMERSUM L. Marsh near the Grève d'Azette. Bab.
- MYOSURUS MINIMUS L. In fields at St. Saviour's. Mr. B. Saunders.
- RANUNCULUS TRICHOPHYLLUS Chaix. Common in running streams. J. Piquet. The Jersey plant is R. DROUETH Godr.
- R. TRIPARTITUS DC. In shallow ditches. J. Piquet.
- R. LINGUA L. St. Peter's Marsh and a marsh near the Grève d'Azette. *Bab.*
- R. AURICOMUS L. Woods in Jersey. Mr. B. Saunders.
- R. ARVENSIS L. In cornfields. Ditto.
- BERBERIS VULGARIS L. I have never seen it even in a garden.
- LEPIDIUM LATIFOLIUM L. Mr. B. Saunders.
- COCHLEARIA OFFICINALIS L. Ditto.
- C. ANGLICA L. Ditto.
- BRASSICA OLERACEA L. Ditto.
- CHRYSOSPLENIUM ALTERNIFOLIUM L. Mr. B. Saunders and Prof. La Gasca.
- ALCHEMILLA VULGARIS L. St. Laurence Valley. Bab.
- SANGUISORBA OFFICINALIS L. St. Saviour's Valley. Mr. B. Saunders and J. Piquet.
- PRUNUS INSTITUTIA L. Mr. B. Saunders.
- ULEX NANUS Forst. "Frequent." Bab. and Piquet. See U. GALLII.
- TRIFOLIUM OCHROLEUCUM Huds. St. Saviour's Valley. Mr. B. Saunders.
- GERANIUM COLUMBINUM L. Mr. B. Saunders.
- POLYGALA VULGARIS L. Bab. and Piquet. ? P. SERPYLLACEA Weihe, which they do not mention.
- EUPHORBIA ESULA L. Prof. La Gasca. In the "Student's Flora" this plant is said to be "native in Jersey." Certainly an error.
- MALVA PARVIFLORA L. St. Peter's Common. J. Piquet, 1898.
- HYPERICUM MONTANUM L. Prof. La Gasca.
- VIOLA CANINA L. Bab. and Piquet. V. SILVATICA Fr., which they do not mention.
- V. LACTEA Sm. Mr. B. Saunders.
- V. TRICOLOR L. Frequent. *Bab.* and *Piquet.* Probably degraded forms of the Garden Pansy.

- EPILOBIUM PALUSTRE L. Grouville. Bab. and Piquet.
- MYRIOPHYLLUM VERTICILLATUM L. St. Saviour's Valley. Mr. B. Saunders. Pond near Noirmont Point and in running streams,
- St. Peter's. J. Piquet. The Noirmont plant is M. Alterniflorum. Eryngium campestre L. Prof. La Gasca.
- CORIANDRUM SATIVUM L. Ditto.
- SISON AMOMUM L. Mr. B. Saunders.
- CICUTA VIROSA L. St. Saviour's Valley. Mr. B. Saunders.
- PIMPINELLA SAXIFRAGA L. Near the Grève d'Azette. Mr. B. Saunders.
- SIUM LATIFOLIUM L. St. Saviour's Valley. Mr. B. Saunders.
- S. ANGUSTIFOLIUM L. Gorey and St. Saviour's. Bab.
- ENANTHE PHELLANDRIUM Lam. Marais à la Cocq, Grouville. J. Piquet.
- PEUCEDANUM OFFICINALE L. Mr. B. Saunders.
- STATICE LIMONIUM L. Ditto.
- "ERYTHRÆA LINARIFOLIA Pers. Griseb." St. Catharine's Bay. Bab. E. LATIFOLIA Sm. Jersey. Bab.
- MYOSOTIS SILVATICA Hoffm. Near St. Helier's. Bab.
- AJUGA REPTANS L. St. Saviour's Valley. Mr. B. Saunders.
- TEUCRIUM SCORDIUM L. Prof. La Gasca.
- NEPETA CATARIA L. St. Brelade's. Bab.
- GALEOPSIS VERSICOLOR Curt. Mr. B. Saunders.
- "MELISSA ACINOS Benth." On hillsides by the road to St. Peter's. Mr. B. Saunders.
- "CALAMINTHA NEPETA Clairv." Near L'Etac. J. Piquet.
- ATROPA BELLADONNA L. Mr. Piquet tells me there used to be one fine plant in a lane near the house called Maitlands, St. Clement's.
- VERBASCUM BLATTARIA L. St. Saviour's. J. Piquet.
- LINARIA SPURIA Mill. Near St. Ouen's Pond. Bab.
- L. MINOR Desf. The Quenvais. J. Piquet, who, however, tells me that he has never seen it.
- PEDICULARIS PALUSTRIS L. St. Laurence Valley. Bab.
- PINGUICULA LUSITANICA L. Mr. B. Saunders.
- UTRICULARIA VULGARIS L. Ditto.
- OROBANCHE PICRIDIS F. Schultz. Sandhills. St. Ouen's Bay. H. F. Parsons.
- PLANTAGO MEDIA L. "Common." Bab. Never seen by any one else.
- GALIUM ULIGINOSUM L. St. Saviour's Valley. Mr. B. Saunders.

- SAMBUCUS EBULUS L. St. Saviour's Valley. Mr. B. Saunders.
- VIBURNUM OPULUS L. Prof. La. Gasca.
- V. LANTANA L. Ditto.
- "FEDIA DENTATA Vahl." St. Laurence Valley. Bab.
- "F. AURICULA Gaud. B. TRIDENTATA Woods." Ditto.
- VALERIANA OFFICINALIS L. Prof. La Gasca and Mr. B. Saunders. SCABIOSA ARVENSIS L. St. Ouen's. Mr. B. Saunders.
- S. COLUMBARIA L. Frequent. Bab. St. Clement's, rare. J. Piquet.
- BRYONIA DIOICA Jacq. Near Bagatelle. Mr. B. Saunders. Hedge at Trinity. J. Piquet, 1898.
- WAHLENBERGIA HEDERACEA Reich. "Bog in the upper part of St. Peter's Valley, Mr. W. C. Trevelyan." Bab.
- ASTER TRIPOLIUM L. St. Clement's. Mr. B. Saunders.
- GNAPHALIUM SILVATICUM L. Mr. B. Saunders.
- ARTEMISIA MARITIMA L. Mr. B. Saunders.
- SENECIO AQUATICUS Huds. Prof. La Gasca.
- S. ERRATICUS Bert. Ditto.
- CARDUUS ACANTHOIDES L. Mr. W. C. Trevelyan. Bab.
- ONOPORDON ACANTHIUM L. Grouville. Bab. St. Aubin's Bay. J. Piquet.

CENTAUREA SALMANTICA L. and C. LEUCOPHÆA Jord. are said to

have been found in Jersey." Appendix to the "Student's Flora." ARNOSERIS PUSILLA Gærtn. Gravelly places, Grouville. J. Piquet. TRAGOPOGON FRATENSIS L. In fields near St. Saviour's Church.

- Mr. B. Saunders.
- LACTUCA VIROSA L. Mr. B. Saunders.
- 'HIERACIUM LÆVIGATUM Willd. Koch." The Quenvais. Bab.
- LEONTODON HISPIDUS L. "Common." Bab. "Frequent." J. Piquet. I have searched for it in vain, and suspect some confusion with L. HIRTUS. Mr. Piquet has no specimen in his herbarium.

# THE FLORA OF THE CHANNEL ISLANDS.

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# THE FLORA OF THE CHANNEL ISLANDS, WITH REMARKS UPON THE GEOGRAPHICAL DISTRI-BUTION AND AFFINITIES OF THE SPECIES.

- I. LIST OF SPECIES.
- II. COMPARISON OF THE ISLANDS.
- III. Relation of the Channel Islands Flora to the Flora of Europe in general.
- IV. RELATION TO THE FLORA OF THE COASTS OF FRANCE.
- V. NATURALISED ALIENS AND CASUALS.
- VI. LOSS TO THE INDIGENOUS FLORA.
- VII. MINOR POINTS OF INTEREST.

THE following list of plants is intended to represent as far as possible the indigenous Flora of the Channel Islands, including "colonists," *i.e.*, well - established weeds of cultivation, but excluding such as are certainly of foreign extraction, however abundant and widely diffused they may have become. The records for the other Islands have been taken from Mr. Marguand's "Flora of Guernsey," \* but I have used my own judgment with the utmost freedom as to what plants should and what should not be included, especially in the case of Alderney and Sark, where Mr. Marquand seldom distinguishes natives from introduced aliens. I have also ruthlessly eliminated, as far as possible, all uncertainties and ambiguities, and in computing the various totals have taken no notice of the sign (?), which appears, even as it is, only too frequently. The standard of "species" adopted is approximately that of the species and sub-species of Hooker's "Students' Flora," and of Corbière's "Nouvelle Flore de Normandie," a most useful book. For purposes of comparison it is useless to go lower down the scale.

\* Mr. C. P. Hurst has very kindly sent me a list of species which he has either discovered or rediscovered in Sark and Brechou. Eleven of these are included in the list; also Juncus capitatus, new to Alderney. A list such as this is necessarily to some extent dependent upon the judgment of the individual who compiles it. Questions will arise, for instance, as to whether a plant is a colonist or only a frequent casual. In the Jersey list Setaria viridis and Panicum Crus-galli are included, but not Lepidium Draba and Amarantus retroflexus. Another botanist might include, or exclude, all four. Again, it is difficult to know how to deal with such plants as Smyrnium Olusatrum and Egopodium Podagraria, which are certainly relics of cultivation as a rule, but may well have been native once within the area. In such cases I have taken the Continental distribution as the best guide. No plant has been included, or excluded, without a deliberate consideration of its claims. Plants which were undoubtedly native once but have become extinct are included, as they form part of the indigenous vegetation.

The first column is devoted to Jersey, the second to Guernsey (including the smaller islands of Herm and Jethou), the third to Alderney, the fourth to Sark (including Brechou). The last column indicates the European distribution. Where nothing is said the plant in question is found all over Europe, exclusive of the Arctic Circle. Plants marked "Arctic" penetrate within the Circle. The other notes explain themselves.

Considering the size of the area, the list is a long one, especially if the scant courtesy which segregate species and ambiguous records have received is taken into account.

# I. LIST OF CHANNEL ISLANDS PLANTS ("NATIVES" AND "COLONISTS").

	J.	G.	А.	s.	European Distribution.
CHARACEÆ. NITELLA TRANSLUCENS Agardh N. FLEXILIS Agardh. CHARA FRAGILIS Desv. C. ASPERA Willd. C. BALTICA BRUZ. C. VULGARIS L.	*	* * *	• •	•••	
POLYPODIACEÆ. GYMNOGRAMME LEPTOPHYLLA DESV POLYPODIUM VULGARE L. PTERIS AQUILINA L ADIANTUM CAPILLUS-VENERIS L. BLECHNUM SPICANT Roth. ASPLENIUM LANCEOLATUM HUds A. ADIANTUM-NIGRUM L. A. ADIANTUM-NIGRUM L. A. MRINUM L. A. TRICHOMANES L. A. TRICHOMANES L. A. CETERACH L. SCOLOPENDRIUM VULGARE SYMONS ATHYRIUM FILIX-FEMINA Roth. ASPIDIUM FILIX-FEMINA Roth. A. DILATATUM SW. A. ANGULARE Willd.	************	* * * * * * * * * * * *	* * * * * * * * * * * *	* * * * * * * * * * *	S. Europe. Arctic. S. and W. Arctic. S. and W. W. Europe. Arctic. Mid. and S. Mid. and S. Arctic. Mid. and S.
OSMUNDACEÆ. Osmunda regalis L MARSILIACEÆ. Pilularia globulifera L	*	*		*	
OPHIOGLOSSACEÆ. Ophioglossum vulgatum L O. lusitanicum L. Botrychium Lunaria L.	*	· * *	•••	*	S. and W. Arctic.
EQUISETACEÆ. EQUISETUM MAXIMUM LAM. E. ARVENSE L. E. PALUSTRE L. E. LIMOSUM SM.	 * * *	* * *	* *	** * *	Mid. and S. Arctic.

#### FLORA OF JERSEY.

	J.	G.	A.	S.	European Distribution.
ISOËTACEÆ. †Isoëtes Hystrix Dur		*	*		S. Europe.
TYPHACEÆ. Typha latifolia L.	*	*			
SPARGANIACEÆ. Sparganium ramosum Huds	*	*	*		
POTAMOGETONACEÆ. Zostera marina L. Z. nana Roth. Potamogeton natans L. P. polygonifolius Pour. P. plantagineus Ducroz P. crispus L.	* * * *	* * *	*	*	Arctic.
P. PECTINATUS L. RUPPIA ROSTELLATA Koch. ZANNICHELLIA PALUSTRIS L	*	* * *	•••	•••	Arctic.
JUNCAGINACEÆ. Triglochin palustre L T. maritimum L	* *	*	*	•••	Arctic. Arctic.
ALISMACEÆ. Alisma Plantago L A. ranunculoides L	*	*	• •	••	Arctic. Mid. and S.
GRAMINEÆ. Panicum sanguinale L. P. Crus-galli L	₩ *	?	•••	•••	Mid. and S.
SETARIA VIRIDIS BEAUV. PHALARIS MINOR Retz. ANTHOXANTHUM ODORATUM L. MILIUM EFFUSUM L. M. SCABRUM Merl. PHLEUM PRATENSE L. P. ARENARIUM L.	* * * * *	? * * * *	**	**	S. and W. Arctic. Arctic. S. and W.
ALOPECURUS GENICULATUS L. A. PRATENSIS L. MIBORA VERNA Adans. POLYPOGON MONSPELIENSIS Desf AGROSTIS CANINA L. A. VULGARIS With. A. ALBA L.	* * * * * *	* * * *	* * *	* * * * * *	W. & W. Central. Mid. and S. Arctic. Arctic.

<sup>+</sup> Mr. C. P. Hurst tells me that Isoëtes Hystrix has quite recently been discovered in some plenty in Alderney by Mr. E. D. Marquand.

	J.	G.	A.	s.	European Distribution.
GASTRIDIUM LENDIGERUM Gaud CALAMAGROSTIS EPIGEIOS Roth	*	*		*	Mid. and S. Arctic.
Ammophila arundinacea Host Lagurus ovatus L Holcus mollis L	* ? *	* *	*		S. and W.
H. LANATUS L. AIRA CARYOPHYLLEA L. A. PRÆCOX L. CORYNEPHORUS CANESCENS P. Beauv. DESCHAMPSIA FLEXUOSA TTIN. TRISETUM FLAVESCENS, Beauv. AVENA PUBESCENS Huds. A. FATUA L.	* * * = * * *	* * *	* * * * * * *	* *	Arctic.
Arrhenatherum avenaceum Beauv. Cynodon Dactylon Pers Phragmites communis Trin	*	* * *	*	* • • *	Mid. and S. Arctic.
TRIODIA DECUMBENS Beauv. Molinia cærulea Mænch. Kæleria cristata Pers. Catabrosa aquatica Beauv.	* *	* * *	* * *	*	Arctic.
BRIZA MEDIA L. B. MINOR L. DACTYLIS GLOMERATA L. CYNOSURUS CRISTATUS L.	* *	*	* * * *	••• * *	S. and W. Arctic.
C. echinatus L. Poa annua L. P. pratensis L.	* *	* *	* *	*	Mid. and S. Arctic. Arctic.
P. TRIVIALIS L. GLYCERIA FLUITANS R. Br. (Ag.) ATROPIS DISTANS GRIS. A. MARITIMA GRIS. FESTUCA ELATIOR L. F. ARUNDINACEA Schreb. F. OVINA L.	* * * * *	* * * * *	* * * * *	* * * * * * * * * *	Arctic.
F. RUBRA L F. ORARIA DUMORT F. UNIGLUMIS Soland F. SCIUROIDES Roth	* * *	* * *	* * *	*   *   *	S. and W.
F. MYURUS L. CATAPODIUM LOLIACEUM Link. SCLEROPOA RIGIDA Gris. BROMUS MADRITENSIS L. B. MAXIMUS Desf.	* * *	* * * ?	* * *	*	S. and W. S. and W. S. and W. S. and W.
B. STERILIS L B. COMMUTATUS Schrad.(+ RACEMOSUS) B. MOLLIS L BRACHYPODIUM SILVATICUM R. & S	* ? * *	* * *	* * *	* ? *	

#### FLORA OF JERSEY.

				_	
	J.	G.	А.	S.	European Distribution.
Nardus stricta L	*				Arctic.
Lolium perenne L	*	1 *	*	*	
L. TEMULENTUM L	*	?	?	*	
Lepturus filiformis Trin	*	*			Mid. and S.
AGROPYRUM REPENS Beauv	*	*	*	*	
A. PUNGENS R. and S		*	*	•••	
A. ACUTUM R. and S	*		?		
A. JUNCEUM Beauv.	*	*	*		
Hordeum murinum L	*	*	*	*	Mid. and S.
H. MARITIMUM With	• •	*	• •	••	Mid. and S.
CYPERACE Æ.					201 10
CYPERUS LONGUS L	*	*	*	*	Mid. and S.
ERIOPHORUM ANGUSTIFOLIUM Roth	*	*			Arctic.
SCIRPUS PAUCIFLORUS Lightf	?	*		•••	Arctic.
S. FLUITANS L	*			• • •	Mid. and S.
S. SAVII Seb. and Maur	*	*	*	*	S. and W.
S. setaceus L	*	*	*	*	
S. TABERNÆMONTANI Gmel	*	*	*		
S. PUNGENS Vahl.	*	· • •	· · ·	• •	W. & W. Central.
S. MARITIMUS L.	*	*	*		Arctic.
Heleocharis palustris R. Br	*	; *	*	*	Arctic.
H. MULTICAULIS Sm	*	*	*		
Scheenus nigricans L	-	*	*		
CLADIUM MARISCUS R. Br	*				Mid. and S.
CAREX PULICARIS L	*	*	*		Arctic.
C. DIVISA Huds	*				Mid. and S.
C. ARENARIA L.	*	*	*	*	
C. PANICULATA L	*	*	*		
C. VULPINA L.	*	*			
C. MURICATA L	*	*	*	*	
C. DIVULSA Good		*	*	*	
C. ECHINATA Murr.	*	*	*	• •	Arctic.
С. кемота Ц	*	*		1	
C. OVALIS Good.	*	*	1	*	Arctic.
C. GOODENOWII J. Gay	*	*			Arctic.
C. GLAUCA Murr	*	*	*		
C. PILULIFERA L	*	*		*	Arctic.
C. PRÆCOX Jacq	*	*	*	*	
C. PANICEA L.	*	*	*		Arctic.
C. PENDULA Huds	*	?			Mid. and S.
C. Lævigata Sm	*	*			Mid. and S.
C. BINERVIS Sm	*				W. & W. Central.
C. DISTANS L	*	*			
C. PUNCTATA Gaud	*	*		*	W. & W. Central.
C. EXTENSA Good	*	*	*		
С. FLAVA L. (Ag.)	*	*	*	*	Arctic.
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### LIST OF CHANNEL ISLANDS PLANTS. 171

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		G.	А.	s.	European Distribution.
C. HIRTA L. C. PSEUDO-CYPERUS L. C. RIPARIA CURT.		* * *	*		\$
ARACE Æ. Arun maculatum L. A. italicum Mill	*	*	•••	*	Mid. and S. S. and W.
LEMNACEÆ. Lenna trisulca L. L. minor L. L. gibba L. L. polyrrhiza L.	* * *	••• * *	*	* * • •	
JUNCACEÆ. JUNCUS BUFONIUS L. J. GERARDI Loisel. J. GLAUCUS Leers J. EFFUSUS L. (+CONGLOMERATUS)	* * *	* *	*	*   - • • •	1
J. MARITIMUS Lam. J. ACUTUS L. J. SUPINUS Mœnch.	* * *	* * *	* * *	••• ••• *	S. and W.
J. OBTUSIFLORUS Ehrh. J. LAMPROCARPUS Ehrh. J. ACUTIFLORUS Ehrh. J. CAPITATUS Weigel. LUZULA FORSTERI DC. L. MAXIMA DC. L. CAMPESTRIS DC. L. ERECTA DESV.	* * * * *	* * * * * *	* * *	* * *	Mid. and S. Mid. and S. Arctic.
LILIACE Æ. Allium sphærocephalum L. A. vineale L. Scilla autumnalis L. S. festalis Salisb. Asparagus maritmus L. Ruscus aculeatus L.	* * *	* * *	*	* *	Mid. and S. S. and W. W. & W. Central. Mid. and S. S. and W.
AMARYLLIDACEÆ. Narcissus Pseudo-Narcissus L	*	.   • •			Mid. and S.
DIOSCOREACEÆ. Tamus communis L	*	*			Mid. and S.
IRIDACE Æ. Romulea Columnæ Seb. and Maur.	*	*	*	' *	S. and W.

	J.	G.	А.	s.	European Distribution.
IRIS PSEUD-ACORUS L I. FŒTIDISSIMA L	* *	*	*	*	S. and W.
ORCHIDACEÆ. Ophrys apifera Huds. Orchis Morio L.	*	*	•		Mid. and S.
O. mascula L. O. laxiflora Lam. O. maculata L.	* *	* *	••• ••	*	Mid. and S. Arctic.
O. LATIFOLIA L. (+INCARNATA) ANACAMPTIS PYRAMIDALIS Rich EPIPACTIS PALUSTRIS CRANTZ SPIRANTHES AUTUMNALIS Rich	* * *	* * *	* * * *	•••	Mid. and S.
S. æstivalis Rich Listera ovata R. Br	*	*	••	•••	Mid. and S. Arctic.
SALICACEÆ. Populus tremula L. Salix cinerea L. S. Caprea L. S. Aurita L. S. repens L.	* *	* *	* * *	*	Arctic.
BETULACEÆ. Corylus Avellana L. Alnus glutinosa Gærtn.	*	*		• •	
FAGACEÆ. Fagus silvatica L. Quercus Robur L.	*	*	*	*	
MORACEÆ. Humulus Lupulus L.	*	*	*	*	
URTICACE Æ. Urtica dioica L U. urens L. Parietaria officinalis L.	*	* *	* *	*	Arctic. Arctic.
SANTALACEÆ. Thesium humifusum DC	*		*	•••	Mid. and S.
POLYGONACEÆ. Rumex conglomeratus Murr R. nemorosus Schrad	*	*	*	*	
R. MARITIMUS L R. pulcher L	* *	*	*	*	Mid. and S.
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R. OBTUSIFOLIUS L R. CRISPUS L				-	Distribution.
R. CRISPUS L.	*	l E *	*	*	
	*	. *	*	*	
R. HYDROLAPATHUM Huds	*	*			
R. Acetosa L.	*	` *	*	*	Arctic.
R. Acetosella L.	*	*	*	*	Arctic.
POLYGONUM CONVOLVULUS L	*	*	*	*	Arctic.
P. AVICULARE L.	*	*	*	*	Arctic.
P. RAII Bab.	*	*	*	*	S. and W.
P. MARITIMUM L.	?	*			S. and W.
P. Hydropiper L.	*	*	*	*	
P. PERSICARIA L.	*	! *	*	<b>*</b>	Arctic.
P. MINUS Huds.	*				
P. LAPATHIFOLIUM L. (+MACULATUM)	*	*	*	*	
P. AMPHIBIUM L.	*	*	*		Arctic.
CHENOPODIACEÆ.			1		2012 10
Beta maritima L	*	) *	*	*	Mid. and S.
CHENOPODIUM POLYSPERMUM L	*	*		*	
C. VULVARIA L	*	*			
C. Album L	· *	*	*	*	Arctic.
C. FICIFOLIUM Sm.	• •	*		1	1
C. MURALE L.	*	*	*	*	
C. RUBRUM L. (+BOTRYOIDES)	1	*		*	,
ATRIPLEX LITTORALIS L.	۱.,	. *	*		
A. PATULA L	, *	' *	*	*	Arctic.
A. HASTATA L. (+ DELTOIDEA)	*	*	*	• *	Arctic.
A. BABINGTONII Woods	*	*	*	*	
A. FARINOSA Dum	*	*	*	*	
A. PORTULACOIDES L.	*	*			Mid. and S.
Salicornia herbacea L	1	*			
SUÆDA FRUTICOSA FORSK	1	`*	1		S. and W.
S. MARITIMA Dum.	*	*			Arctic.
Salsola Kali L.	*	*	*	?	
PORTULACACEÆ.		ł		1	
Montia fontana L.	*	*	*	*	Arctic.
CARYOPHYLLACEÆ.					1
STELLARIA MEDIA L	*	*	*	*	Arctic.
SIPLEI	*	1	+		1110010.
S. HOLOSTEA L.	*	· • •			Arctic.
S. GRAMINEA L.	*	*			Arctic.
S. ULIGINOSA Murr	*	*	*	*	W. & W. Central
CERASTIUM TETRANDRUM Curt	*	1	*		W. C. W. CEIDIAL
C. SEMIDECANDRUM L.	*	*			Arctic.
C. GLOMERATUM Thuill.	*	*	*	*	Arctic.
C. TRIVIALE Link.	*	*	*	*	W. & W. Central
Mœnchia erecta Ehrh	*	*	*	*	W. & W. Central

	J.	G.	А.	s.	European Distribution.
SAGINA MARITIMA DOD.					
	*	*	•••		
S. APETALA L.	*	*	*		
S. CILIATA Fr.	*	*	*	*	
S. PROCUMBENS L.	*	*	1.1	*	Arctic.
S. SUBULATA Presl.	*	*	*	• •	
S. NODOSA Fenzl.	*	*	*	*	Arctic.
ALSINA PEPLOIDES Wahl	*	*	*	*	W. Europe.
Arenaria serpyllifolia L	*	*	*		Arctic.
Mœrhingia trinervia Clairv	*		*	*	Arctic.
Spergula arvensis L.	*	*	*	*	Arctic.
Spergularia rubra Pers	*	*	*	*	
S. SALINA Presl.	*	*	*		
S. RUPESTRIS Lebel.	*	*	*	*	W. and S.
POLYCARPON TETRAPHYLLUM L	*	*		*	Mid. and S.
HERNIARIA GLABRA L. (+ CILIATA Bab.)	*	*	*		Lifte, ond o.
Scleranthus annuus L.	*	*	*	*	
Agrostemma Githago L.	*	*	*	*	
SILENE CUCUBALUS Webel.	*	2	*		Amobio
	*	*		••	Arctic.
			*	*	Arctic.
S. CONICA L.	*	*	*	•••	
S. ANGLICA L. $(+$ QUINQUEVULNERA)	*	*	*	*	
S. NUTANS L.	*	Herm	*	• •	Arctic.
Lychnis Flos-Cuculi L	*	*	*		Arctic.
Melandryum silvestre Roehl	*	*	*	*	Arctic.
M. pratense Roehl.	*	*	*	*	
Dianthus prolifer L.	*				
D. Armeria L.			*	*	
D. GALLICUS Pers.	*				W. Europe.
RANUNCULACEÆ.					
RANUNCULUS TRICHOPHYLLUS Chaix)					
R. DROUETH Godr.	*	*	*	*	
R. PELTATUS Schrank.			(		
R. HETEROPHYLLUS Fr.	*	*	••	• • •	
R. BAUDOTII Godr.	*				
R. HEDERACEUS L.	*	*	*	• •	
R. SCELERATUS L.	*	*	*	*	Anotio
R. OPHIOGLOSSIFOLIUS Vill.		*		* *	Arctic.
	*	•••		•••	S. Europe.
R. FLAMMULA L	*	*	*	* j	Arctic.
R. LINGUA L.	••	?	*	•••	
R. ACRIS L.	*	*	* '	*	Arctic.
R. REPENS L.	*	*	*	*	Arctic.
R. BULBOSUS L.	*	*	*	*	
R. HIRSUTUS Curt.	*	*		*	
R. parviflorus L.	*	*	*	*	Mid. and S.
R. CHÆROPHYLLOS L.	*				S. and W.
R. FICARIA L.	*	*	*	*	Arctic.
			,		

		-	,		
	J.	G.	А.	s.	European Distribution.
PAPAVERACEÆ.					
GLAUCIUM LUTEUM Scop	*	*	*	• •	
PAPAVER REÆAS L.	*	*	*	*	
P. DUBIUM L.	*	*	. * I	*	
P. ARGEMONE L.	*	• •			I
P. HYBRIDUM L.	*	*	*	• •	IV. C. XII. Charles I
CORYDALIS CLAVICULATA DC FUMARIA PALLIDIFLORA JORD	*		•••		W. & W. Central.
F. BORÆI JORD		*	*	• •	
F. CONFUSA Jord. (+MURALIS)	*	· *	*	*	l.
F. OFFICINALIS L	*	*	*	*	
E. OFFICINALIS L	*	*	- *î	• •	
CRUCIFERÆ.	1		,	1	
TEESDALIA NUDICAULIS R. Br.					
LEPIDIUM LATIFOLIUM L.	*		*	*	Mid. and S.
L. SMITHII Hooker	· ·	*	?	*	W. Europe.
CORONOPUS DIDYMUS Sm.	*	÷	-	*	W. Europe.
C. RUELLII All.	*	*	÷	1	
THLASPI ARVENSE L.	*	*	, <b>T</b>	*	1
Cochlearia Danica L.	*	. ×	*	-	Arctic.
C. OFFICINALIS L.	1 .		ļ		Arctic.
Alliaria officinalis Andrz.	*		*		112 00101
SISYMBRIUM THALIANUM J. Gay	*	-		l ÷	Arctic.
S. OFFICINALE Scop.	*	*	*	*	
CAKILE MARITIMA Scop	*	*	*	2	
SINAPIS NIGRA L	*	*			
S. ARVENSIS L.	*	*	*	' *	
DIPLOTAXIS TENUIFOLIA DC	*	*	*		
D. MURALIS DC	*	*	*		W. & W. Central.
ERUCASTRUM INCANUM Koch	*	! *	*		Mid. and S.
BRASSICA CHEIRANTHUS Villars	*	2		2	S. and W.
RHAPHANUS RHAPHANISTRUM L	*	*	*	*	Arctic.
R. MARITIMUS Sm	*	*	*	*	W. Europe.
CRAMBE MARITIMA L	*	*	*		
BARBAREA VULGARIS R. Br	*	*	; · ·	*	Arctic.
B. INTERMEDIA Br	*	' *	• •		
NASTURTIUM OFFICINALE R. Br	*	*	*	*	
N. SILVESTRE R. Br.	*	*	• •	i	
N. palustre DC	*				Arctic.
Cardamine pratensis L	*	*		*	Arctic.
C. HIRSUTA L.	*	*	*	*	Arctic.
C. FLEXUOSA With.	*		к	*	
HUTCHINSIA PETRÆA R. Br.	*	• • •	<b>-</b>	• •	
CAPSELLA BURSA-PASTORIS Mœnch	*	*	*	*	
DRABA VERNA L.	*	*	*	• •	
Arabis Hirsuta R. Br.	· • •	*	*	• •	
MATTHIOLA SINUATA R. Br	*	*	••	· •	S. and W.

#### FLORA OF JERSEY.

RESEDACEÆ.         RESEDALUTEAL.         RESEDALUTEOLAL.         RESEDALUTEOLAL.         BROSERACEÆ.         DROSERAROTUNDIFOLIAL.         CRASSULACEÆ.         Sedum Anglicum Huds.         S. ACREL.         S. REFLEXUML.         COTYLEDON UMBILICUS L.         S. REFLEXUML.         S. REFLEXUML.         COTYLEDON UMBILICUS L.         S. REFLEXUML.         S. REFLEXUML.         COTYLEDON UMBILICUS L.         K         S. REFLEXUML.         S. REFLEXUML.         COTYLEDON UMBILICUS L.         K         S. REFLEXUML.         S. REFLEXUML.         S. REFLEXUML.         S. REFLEXUML.         K. S. and W.         Cerassula Tillæa Lester         S. AXIFRAGACEÆ.         SAXIFRAGATENDA CPOSITIFOLIUM L.         *       *         ROSACEÆ.         Pirco MALUS L.         *       *         Pirco MALUS L.         *       *         *       *         *       *         *       *         *       *         *		J.	G.	A.	s.	European Distribution.
RESEDA LUTEA L.       *       ·       ·         RESEDA LUTEOLA L.       *       ·       ·       ·         RESEDA LUTEOLA L.       *       *       *       *       *         DROSERA ROTUNDIFOLIA L.       *       *       *       *       ·         CRASSULACEÆ.       *       *       ·       ·       ·       ·         S. REFLEXUM L.       *       *       *       ·	RESEDACE Æ					
RESEDA LUTEOLA L			]			
DROSERACE Æ. DROSERA ROTUNDIFOLIA L			*	*	*	
DROSEBA ROTUNDIFOLIA L						
CRASSULACEÆ. SEDUM ANGLICUM Huds	DROSERACE Æ.	I			ĺ	
SEDUM ANGLICUM Huds.       * * * * * W. Europe.         S. ACRE L.       * * * * * W. Europe.         S. ACRE L.       * * * * * *         S. REFLEXUM L.       * * * * *         COTYLEDON UMBILICUS L.       * * * * *         COTYLEDON UMBILICUS L.       * * * * *         CASSULA TILLÆA Lester       * * * * *         SAXIFRAGA TRIDACTYLITES L.       * * * * *         CHRYSOSPLENIUM OPPOSITIFOLIUM L.       * * * * *         ROSACEÆ.       * * * * *         SPIRÆA ULMARIA L.       * * * * *         PRUS MALUS L.       * * * * *         MESPILUS OXYACANTHOIDES DC.       * * * *         MESPILUS OXYACANTHOIDES DC.       * * * *         R. DÆUS FRUTICOSUS L.       * * * *         R. DEÆUS L.       * * * *         R. DÆUS L.       * * * *         R. DÆUS L.       * * * *         P. SILVESTRIS Neck.       * * * *         P. REPTANS L.       * * * *         P. REPTANS L.       * * * *         P. ARSERINA L.       * * * *         P. ARGENTEA L.	Drosera rotundifolia L	*		• •	• •	Arctic.
SEDUM ANGLICUM Huds.       * * * * * W. Europe.         S. ACRE L.       * * * * * W. Europe.         S. ACRE L.       * * * * * *         S. REFLEXUM L.       * * * * *         COTYLEDON UMBILICUS L.       * * * * *         COTYLEDON UMBILICUS L.       * * * * *         CASSULA TILLÆA Lester       * * * * *         SAXIFRAGA TRIDACTYLITES L.       * * * * *         CHRYSOSPLENIUM OPPOSITIFOLIUM L.       * * * * *         ROSACEÆ.       * * * * *         SPIRÆA ULMARIA L.       * * * * *         PRUS MALUS L.       * * * * *         MESPILUS OXYACANTHOIDES DC.       * * * *         MESPILUS OXYACANTHOIDES DC.       * * * *         R. DÆUS FRUTICOSUS L.       * * * *         R. DEÆUS L.       * * * *         R. DÆUS L.       * * * *         R. DÆUS L.       * * * *         P. SILVESTRIS Neck.       * * * *         P. REPTANS L.       * * * *         P. REPTANS L.       * * * *         P. ARSERINA L.       * * * *         P. ARGENTEA L.	OD ACCUT ACT 25					
S. ACRE L		*	*	*	*	W Europe
S. REFLEXUM L. * * * S. and W. COTYLEDON UMBILICUS L. * * * * * S. and W. CRASSULA TILLÆA Lester * * * * * * * * * * * * * * * * * * *			1	, î		W. Europe.
Cotyledon Umbilicus L				î		i
CRASSULA TILLÆA LØSTER       *       *       *       *       W. & W. & W. & Central.         SAXIFRAGA TRIDACTYLITES L.       *						S and W
SAXIFRAGA TRIDACTYLITES L.       *		1	*	· .		
SAXIFRAGA TRIDACTYLITES L.       *	Chassella Hillara Hester			•••		m. a m. continui.
CHRYSOSPLENIUM OPPOSITIFOLIUM L.       *       *       *          ROSACEÆ.       SPIRÆA ULMARIA L.       *       *        Arctic.         PIRUS MALUS L.       *       *       *        Arctic.         PIRUS MALUS L.       *       *       *       *       *       *         MESPILUS OXYACANTHOIDES DC.       *       *       *       *       *       *         MESPILUS OXYACANTHOIDES DC.       *       *       *       *       *       *       *         "RUBUS FUTICOSUS L."*.       *	SAXIFRAGACE Æ.		1			
ROSACEÆ.       *	SAXIFRAGA TRIDACTYLITES L	*	*	*		1
SPIRÆA ULMARIA L.       *        Arctic.         PrAUS MALUS L.       *       *       *       *         P. COMMUNIS L.       *       *       *       *         MESPILUS OXXACANTHOIDES DC.       *       *       *       *         "RUBUS FRUTICOSUS L."*.       *       *       *       *         "RUBUS FRUTICOSUS L."*.       *       *       *       *         R. CÆSIUS L.       *       *       *       *       *         R. IDÆUS L.       *       *       *       *       *       *         P. DECUMBENS L.       *	CHRYSOSPLENIUM OPPOSITIFOLIUM L.	*	*	1	• •	
SPIRÆA ULMARIA L.       *        Arctic.         PrAUS MALUS L.       *       *       *       *         P. COMMUNIS L.       *       *       *       *         MESPILUS OXXACANTHOIDES DC.       *       *       *       *         "RUBUS FRUTICOSUS L."*.       *       *       *       *         "RUBUS FRUTICOSUS L."*.       *       *       *       *         R. CÆSIUS L.       *       *       *       *       *         R. IDÆUS L.       *       *       *       *       *       *         P. DECUMBENS L.       *					ļ	
PIRUS MALUS L.       *		ŀ				
P. COMMUNIS L. * * * * * Arctic. MESPILUS OXYACANTHOIDES DC. * * * * * Arctic. R. CÆSIUS L. * * * * * Arctic. FRAGARIA VESCA L. * * * * Arctic. FRAGARIA VESCA L. * * * * Arctic. POTENTILLA FRAGARIASTRUM L. * * * * Arctic. P. SILVESTRIS Neck. * * * * Arctic. P. REPTANS L. * * * * Mid. and S. P. ANSERINA L. * * * * Arctic. P. COMARUM Nestl. * * * * Arctic. Arctic. P. COMARUM Nestl. * * * * Arctic. Arctic. GEUM URBANUM L. * * * * Arctic. Acctic. Acctic. * * * * Arctic. Arctic. P. ARGENTEA L. * * * * Arctic. Acctic. R. DMBANUM L. * * * * Arctic. Acctic. Acctic. * * * * Arctic. Arctic. Acctic. * * * * Arctic. * * * * Arctic. Arctic. Bubliginosa L. * * * * Arctic. R. MICRANTHA SM. * * * * R. STYLOSA Desv. * * * * Mid. and S. PRUNUS SPINOSA L. * * * * Mid. and S.		*		• •		Arctic.
MESPILUS OXYACANTHOIDES DC.       *       *       *       *         "RUBUS FRUTICOSUS L."*       *       *       *       *         R. LOÆUS L.       *       *       *       *       *         R. IDÆUS L.       *       *       *       *       *       *         R. IDÆUS L.       *       *       *       *       *       *       *         PAGUMBENS L.       *       *       *       *       *       *       *       *         POTENTILLA FRAGARIASTRUM L.       *       *       *       *       *       *       *         P. REPTANS L.       * <td></td> <td>*</td> <td>*</td> <td>*</td> <td>*</td> <td></td>		*	*	*	*	
"RUBUS FRUTICOSUS L."*       * * * * * Arctic.         R. LDÆUS L.       * * * *         R. IDÆUS L.       * * * *         P. Arctic.       * * * *         Potentilla Fragariastrum L.       * * * *         P. REPTANS L.       * * * *         P. REFTANS L.       * * * *         P. ARGENTEA L.       * * * *         P. ARGENTEA L.       * * * *         P. COMARUM Nestl.       * * * *         Actic.       * * *         Actic.       * * * *         Actic.       * * * *         Actic.       * * * *		*			*	
R. CÆSIUS L. * * * Arctic. R. LDÆUS L. Arctic. FRAGARIA VESCA L. * * * Arctic. POTENTILLA FRAGARIASTRUM L. * * * * P. SILVESTRIS Neck. * * * * Arctic. P. PROCUMBENS Sibth. * * * * Arctic. P. REPTANS L. * * * * Mid. and S. P. ANSERINA L. * * * * Arctic. P. ARGENTEA L. * Arctic. P. COMARUM Nestl. * * * * Arctic. P. COMARUM Nestl. * * * * Arctic. GEUM URBANUM L. * * * * Arctic. ACRIMONIA EUPATORIA L. (+ ODORATA) SANGUISOBBA MINOR Scop. * * * * Arctic. R. RUBIGINOSA L. * * * * Arctic. R. STYLOSA Desv. * * * * * Mid. and S. PRUNCE SPINOSA L. * * * * * Mid. and S.		1	*	*	1	1 1 *
R. IDZUS L		1	*	ж	*	Arctic.
FRAGARIA VESCA L.       *        Arctic.         POTENTILLA FRAGARIASTRUM L.       *       *       *       *         P. SILVESTRIS Neck.       *       *       *       *       *         P. REPTANS L.       *       *       *       *       *       *         P. REPTANS L.       *       *       *       *       *       *         P. ARGENTAS L.       *       *       *       *       *       *       *         P. ARGENTA L.       *       *       *       *       *       *       Arctic.         P. ARGENTEA L.       *       *       *       *       *       Arctic.         P. COMARUM Nestl.       *       *       *       *       *       Arctic.         GEUM URBANUM L.       *       *       *       *       *       *       *         Alctiemilla ARVENSIS L.       *       *       *       *       *       *       *         SANGUISORBA MINOR Scop.       *       *       *       *       *       *       *       *         R. BUBIGINOSA L.       *       *       *       *       *       *       * </td <td></td> <td>*</td> <td>*</td> <td>*</td> <td>• •</td> <td>A 1*</td>		*	*	*	• •	A 1*
POTENTILLA FRAGARIASTRUM L.       *		• •		*	••	
P. SILVESTRIS Neck. * * * * Arctic. P. PROCUMBENS Sibth. * * * * Mid. and S. P. REPTANS L. * * * * Mid. and S. P. ANSERINA L. * * * * Arctic. P. ARGENTEA L. * * * * Arctic. P. COMARUM Nestl. Arctic. P. COMARUM Nestl. * * * * Arctic. GEUM URBANUM L. * * * * Arctic. ALCHEMILLA ARVENSIS L. * * * * Arctic. ROSA PIMPINELLIFOLIA L. * * * * Arctic. R. RUBIGINOSA L. * * * * Arctic. R. STYLOSA Desv. * * * * * Mid. and S. PRUNUS SPINOSA L. * * * * *				• •		Arctic.
P. PROCUMBENS Sibth			*			A
P. REPTANS L.       * * * *       Mid. and S.         P. ANSERINA L.       * * * *       Arctic.         P. ARGENTEA L.       * * * *       Arctic.         P. COMARUM Nestl.       * * * *       Arctic.         GEUM URBANUM L.       * * * *       Arctic.         ALCHEMILLA ARVENSIS L.       * * * *       Arctic.         ALCHEMILLA ARVENSIS L.       * * * *       Arctic.         RAGINONIA EUPATORIA L. (+ODORATA)       * * * *       Arctic.         Rosa PIMPINELLIFOLIA L.       * * * *       Arctic.         R. MUGRANTHA SM.       * * * *       *         R. STYLOSA Desv.       * * * *       Mid. and S.         PRUNUS SPINOSA L.       * * *       *			*	*		Arcuic.
P. ANSERINA L		*	*	• •		DEan SIM
P. ARGENTEA L		*	*		*	
P. COMARUM Nestl			*	*	*	
GEUM URBANUM L.       * * * * *       Arctic.         ALCHEMILLA ARVENSIS L.       * * * *       *         AGRIMONIA EUPATORIA L. (+ ODORATA)       * * * *       *         SANGUISORBA MINOR SCOP.       * * * *       *         ROSA FIMPINELLIFOLIA L.       * * * *       *         R. RUBIGINOSA L.       * * * *       *         R. GRANTHA SM.       * * * *       *         R. STYLOSA Desv.       * * *       *         PRUNUS SPINOSA L.       * * *       *		*	• •	• •		
ALCHEMILLA ARVENSIS L.       * * * * *         AGRIMONIA EUPATORIA L. (+ODORATA)       * * * *         SANGUISORBA MINOR Scop.       * * * *         Rosa PIMPINELLIFOLIA L.       * * * *         R. RUBIGINOSA L.       * * * *         R. CANINA L.       * * * *         R. STYLOSA Desv.       * * * *         PRUNUS SPINOSA L.       * * * *		1		• •		
AGRIMONIA EUPATORIA L. (+ ODORATA)       *		1		*	1 *	Arctic.
SANGUISORBA MINOR Scop.       * * *         ROSA PIMPINELLIFOLIA L.       * * *         R. RUBIGINOSA L.       * * * *         R. MICRANTHA SM.       * * *         R. CANINA L.       * * *         R. STYLOSA Desv.			1.	*	*	
Rosa PIMPINELLIFOLIA L.       * * * * * Arctic.         R. RUBIGINOSA L.       * * * *         R. MICRANTHA SM.       * * * *         R. CANINA L.       * * * *         R. STILOSA Desv.       * *         PRUNUS SPINOSA L.       * * *		Ł	*	, *	*	
R. RUBIGINOSA L				• •	1	Arotio
R. MICRANTHA Sm.       *       *       *       *         R. CANINA L.       *       *       *       *       *         R. STYLOSA Desv.         *       *       *       *         PRUNUS SPINOSA L.       *       *       *       *       *       *				~		Aroue.
R. CANINA L		1	; * ; *	.,	1	
R. STYLOSA Desv			1 1			
PRUNUS SPINOSA L * * * * *		1			1	Mid. and S
		۰.	1.		1 "	manus dirte ka
			, *			
		1	1		1	

\* As there are no Rubus records available for Alderney, I have recurred, for purposes of comparison of the Islands, to the old "aggregate" of Linnæus.

### LIST OF CHANNEL ISLANDS PLANTS.

	J.	G.	A.	S.	European Distribution.
	1-				
LEGUMINOSÆ. Genista tinctoria L	: *	, 			Mid. and S.
ULEX EUROPÆUS L	*	*	1 *	*	W. & W. Central.
U. GALLII Planch.	*	*	*		W. Europe.
U. NANUS Forst Cystisus scoparius Link		*	*		W. Europe.
-	*	*	*	*	Mid. and S.
Ononis repens L O. reclinata L	*		*	*	S. and W.
TRIGONELLA ORNITHOPODIOIDES		*	*	•••	, s. ада үү.
DC.			; *	*	W. Europe.
MEDICAGO LUPULINA L.	*	*	*	) <del>*</del>	w. Burope.
M. DENTICULATA Willd. (+ APICU-	1	*	~	• •	
LATA)	i _		1 *	2	Mid. and S.
M. MACULATA Willd.	ž	, î	*	1	
M. MINIMA Desr.	*	^			Mid. and S.
TRIFOLIUM SUBTERRANEUM L	*	*	*	*	Mid. and S.
T. pratense L.	*	*	. *	۱ *	
T. MARITIMUM Huds.	*	*			S. and W.
T. Molinerii Balb	*			1 ••	S. and W.
T. ARVENSE L	, *	*	*	ж	
T. STRIATUM L	*	*	*	*	Mid. and S.
T. SCABRUM L.	*	*	*	*	Mid. and S.
T. GLOMERATUM L.	*	*	*	*	and W.
T. SUFFOCATUM L	*	*	*	*	S. and W.
T. STRICTUM L	*		• •	••	S. and W.
T. REPENS L.	*	*	*	*	Arctic.
T. FRAGIFERUM L.	*	*	¥	••	
T. PROCUMBENS L T. DUBIUM Sibth	*	*	*	*	
T. FILIFORME L.	*	*	*	*	
ANTHYLLIS VULNERARIA L.	*	*	*	*	Arctic.
LOTUS CORNICULATUS L	*	*	*	*	Arctic.
L. TENUIS Waldst. and Kit.	*	*	*	î	1110010.
L. ULIGINOSUS Schkr.	**	*	*	*	
L. HISPIDUS Desf	*	*	*	*	S. and W.
L. ANGUSTISSIMUS L.	*	*	*	*	S. and W.
Ornithopus perpusillus L	*	×	*	*	
O. EBRACTEATUS Brot.		*	*	*	S. and W.
HIPPOCREPIS COMOSA L.	*				W & W. Central.
VICIA HIRSUTA Koch.	*	*	×	*	Arctic.
V. TETRASPERMA Mœnch.	*	*	*	*	
V. CRACCA L	×	*	*	<u></u>	Arctic.
V. SEPIUM L.	*	*		Brechou	Arctic.
V. LUTEA L.	*		• •		Mid. and S.
V. ANGUSTIFOLIA L	* :	*	*	*	
V. LATHYROIDES L.	*	*	• •	• •	
LATHYRUS PRATENSIS L	*	*	*	••	Arctic.
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177

	J.	G.	А.	s.	European Distribution.
GERANIACEÆ. GERANIUM MOLLE L. G. PUSILLUM L. G. ROTUNDIFOLIUM L. G. DISSECTUM L. G. COLUMBINUM L. G. LUCIDUM L. G. ROBERTIANUM L. ERODIUM CICUTARIUM L'Hérit. E. MOSCHATUM L'Hérit. E. MARITIMUM L'Hérit.	* * * * * * *	* * * * * * *	* * * * * * * *	*	Arctic. S. and W.
Oxalis Acetosella L O. corniculata L	*	•••	••	*	Arctic.
LINACEÆ. RADIOLA LINOIDES Roth. LINUM CATHARTICUM L. L. ANGUSTIFOLIUM Huds. POLYGALACEÆ. POLYGALA SERPYLLACEA Weihe	* * *	* * *	* *	*	Arctic. S. and W.
P. VULGARIS L EUPHORBIACEÆ. MERCURIALIS PERENNIS L	••• • *	?	?	?	
M. ANNUA L. EUPHORBIA PEPLIS L. E. HELIOSCOPIA L. E. AMYGDALOIDES L. E. PARALIAS L. E. PORTLANDICA L. E. PEPLUS L. E. EXIGUA L.	* * * * * *	* * * * * *	* * *	* ? * * *	S. and W. Mid. and S. Mid. and S. W. Europe.
CALLITRICHACEÆ. CALLITRICHE VERNA L. C. STAGNALIS SCOP. C. HAMULATA KUZZ. C. OBTUSANGULA LE GAIL. C. AUTUMNALIS L. (+TRUNCATA)	* * *	? * * *	?	*   * '	Arctic. Arctic.
MALVACEÆ. Lavatera arborea L Althæa officinalis L Malva moschata L	* *	* ?	* ••• *	*	S. and W. Mid and S.

	J.	G.	A.	S.	European Distribution.
M. silvestris L M. rotundifolia L	*	*	*	*	
GUTTIFERÆ. Hypericum Androsæmum L. H. perforatum L. H. tetrapterum Fr. H. humifusum L. H. Linarifolium Vahl. H. pulchrum L. H. elodes L.	* * * * *	* * * * *	• • • • • • • • • • • • • • • • • • •	*	Mid. and S. Arctic. Mid. and S. S. W. Europe. W. &.W. Central. W. & W. Central.
ELATINACEÆ. Elatine hexandra DC	*				
FRANKENIACEÆ. Frankenia lævis L	. *	×		•••	S. and W.
CISTACEÆ. Helianthemum guttatum Mill	; *		*	••	Mid. and S.
VIOLACEÆ. Viola Riviniana Reich. V. tricolor L V. arvensis Murr.	* *	* *	* ••• *	* *	Arctic.
THYMELÆACEÆ. Daphne Laureola L.	*			1	Mid. and S.
LYTHRACEÆ. Peplis Portula L. Lythrum Salicaria L. L. hyssopifolia L.	* * *	* *	•••	*	Arctic. Mid. and S.
ONAGRACEÆ. Ludwigia apetala Wallr Epilobium hirsutum L.	*. *			: ••• *	Mid. and S.
E PARVIFLORUM Schreb E. MONTANUM L E. LANCEOLATUM Seb. and Maur E. TETRAGONUM L. (+OBSCURUM) CIRCÆA LUTETIANA L	* * *	* * *	*   * *	* * * *	Arctic. Mid. and S. Arctic.
HALORRHAGIDACE.E. Myriophyllum alterniflorum DC. M. spicatum L. Hippuris vulgaris L.	*	* * * *	*	•••	Arctic. Arctic. 'Arctic.

	J.	G.	A.	s.	European Distribution.
ARALIACEÆ. Hedera Helix L	*	*	*	*	
UMBELLIFERÆ. Hydrocotyle vulgaris L		*	*	*	
ERVIGIUM MARITIMUM L.	*	*	*	?	
CHÆROPHYLLUM TEMULUM L	*	?	?		
ANTHRISCUS VULGARIS Bernh	*	*	*		
A. SILVESTRIS Hoffm.	••	?	* 9	••	Arctic.
TORILIS ANTHRISCUS Gmel T. NODOSA Gærtn	*	*	*	*	Mid. and S.
SMYRNIUM OLUSATRUM L.	*	*	*	*	Mid. and S.
CONIUM MACULATUM L.	*	*	*	*	
BUPLEURUM ARISTATUM Bartl	*	*	*		Mid. and S.
APIUM GRAVEOLENS L.	*	*		••	
A. NODIFLORUM Reichb.	*	*	*	¥	Mid. and S. Mid. and S.
A. INUNDATUM Reichb CARUM VERTICILLATUM Koch	*	*	•••	* *	W. & W. Central.
CONOPODIUM DENUDATUM Koch	*	*	••	••	W. Europe.
Egopodium Podagraria L	*	*			
CRITHMUM MARITIMUM L	*	*	*	*	
ŒNANTHE FISTULOSA L	*	*	• •	••	2012 20
Œ. LACHENALII Gmel	*	*	• •	••	Mid. and S. S. and W.
E. crocata L Æthusa Cynapium L.	*	*	*	*	S. and W.
Fœniculum vulgare L.	*	*	**	*	Mid. and S.
ANGELICA SILVESTRIS L	*				Arctic.
PASTINACA SATIVA L.	*	*	*	?	
HERACLEUM SPHONDYLIUM L	=	*	*	*	
DAUCUS CAROTA L. (incl. GUMMIFER)	*	*	*	*	l.
CORNACE Æ.					
CORNUS SANGUINEA L	*				
PIROLAÇEÆ.					
PIROLA ROTUNDIFOLIA L	••	*	••	• •	Arctic.
ERICACEÆ.					
CALLUNA ERICA DC.	*	*	*	*	Arctic.
Erica Tetralix L.	*				
E. CINEREA L	ж	*	*	*	
TATA TATATA A CURA TA					
PRIMULACEÆ. Primula acaulis L.	*			*	
P. VERIS L.	*	*	*	*	
Samolus Valerandi L.	*	*	*	*	
Lysimachia <sup>.</sup> Nummularia L	я	?			

	J.	G.	А.	S.	European Distribution.
7. <i>4</i> 7					
L. NEMORUM <sup>*</sup> L.	••		• •	*	
GLAUX MARITIMA L	*	*	*		Arctic.
ANAGALLIS ARVENSIS L.	*	*	*	*	201 10
A. TENELLA L.	*	*	*	*	Mid. and S.
CENTUNCULUS MINIMUS L	*	*	*	•••	
PLUMBAGINACEÆ.		i -			
ARMERIA MARITIMA Willd.	*	*	*	*	Arctic.
A. PLANTAGINEA Willd.	*				S. and W.
STATICE LIMONIUM L	1	*			
S. BINERVOSA G. E. Sm	*	*	. *	*	S. and W.
S. LYCHNIDIFOLIA De Gir.			*		W. Europe.
OLEACE Æ.					
FRAXINUS EXCELSIOR L	*	. *	*	*	
LIGUSTRUM VULGARE L	*	*	*	*	
				1	
GENTIANACEÆ.					
MICROCALA FILIFORMIS L. and H	*	×		11	Mid. and S.
CICENDIA PUSILLA Griseb.		*		1	S. and W.
ERYTHRÆA CENTAURIUM Pers	*	*	*	*	
E. PULCHELLA Fr.	*	*			
Menyanthes trifoliata L	*	*			Arctic.
APOCYNACEÆ.					
VINCA MINOR L	*		••		Mid. and S.
CONVOLVULACEÆ.					
CONVOLVULUS ARVENSIS L.	*		*	*	
CALYSTEGIA SEPIUM R. Br.	1		*	÷.	
C. SOLDANELLA R. Br.		*	*		Mid. and S.
CUSCUTA EPITHYMUM Murr.		*	÷	*	Mid. and S.
BORRAGINACE Æ.				, '	
CYNOGLOSSUM OFFICINALE L	*	*			
Symphytum officinale L.	*	*	*		
ANCHUSA SEMPERVIRENS L	*			!	S. and W.
LYCOPSIS ARVENSIS L	*	*	*	*	
Myosotis palustris L. (+repens)	*	*	*	*	Arctic.
M. CÆSPITOSA F. Schultz	*	*			Arctic.
M. ARVENSIS Lam.	*	*	*	*	Arctic.
M. COLLINA Hoffm,	*	*	*	*	
M. VERSICOLOR Reichb.	*	*	• *	*	
LITHOSPERMUM OFFICINALE L.		*			
ECHIUM VULGARE L.	*	*	[ *	*	
E. PLANTAGINEUM L.	*				S. and W.
· · · · · · · · · · · · · · · · · · ·					

	J.	G.	А.	S.	European Distribution.
VERBENACEÆ.		-			
Verbena officinalis L	*	*	*	*	Mid. and S.
LABIATÆ.					
Ajuga reptans L.		*			
TEUCRIUM SCORODONIA L.	*	*	*	*	
T. SCORDIUM L.		*	• •	•••	Arctic.
Scutellaria galericulata L S. MINOR Huds.	*	*	. · ·		W. & W. Central.
S. MINOR Huds GLECOMA HEDERACEA L		*	*	*	Arctic.
BRUNELLA VULGARIS L.		1 *	*	*	Arctic.
GALEOPSIS TETRAHIT L	*	*			Arctic.
LAMIUM AMPLEXICAULE L	*	*	*	*	
L. HYBRIDUM Vill	*	*	*	*	
L. PURPUREUM Vill	*	*	*	*	
L. ALBUM L	*				
L. GALEOBDOLON Crantz	*			• •	
Ballota NIGRA L.	*	*	'*	• •	
STACHYS BETONICA Benth	*	•••	•••	•••	Arctic.
S. PALUSTRIS L.	*	*	*	*	Arctic.
S. SILVATICA L S. ARVENSIS L	*	*	*	*	AICHO.
SALVIA VERBENACA L.	*	*	*		Mid. and S.
CALAMINTHA OFFICINALIS Moench		*	1		Mid. and S.
C. CLINOPODIUM Spenn.		1	*		
THYMUS SERPYLLUM L	*	*	*	*	Arctic.
Lycopus Europæus L	*	*	1		
Mentha rotundifolia L	*	*	• •	*	Mid. and S.
M. AQUATICA L.	*	*	*	*	
M. ALOPECUROIDES Hull	*	••	• •	••	
M. PUBESCENS Willd.		*	•••	•••	Arctic.
M. ARVENSIS L.	*	*		*	Arctic.
M. Pulegium L	7	*	•••	-	
SOLANACEÆ.				l	
HYOSCYANUS NIGER L.	*	*	*		
Solanum Dulcamara L.	*	*	*	*	
S. NIGRUM L	*	*	*	*	1
SCROPHULARIACEÆ.					
VERBASCUM THAPSUS L	*	*		*	
V. NIGRUM L.	*	*	*	*	Mid. and S.
V. VIRGATUM With LINARIA ELATINE Mill.		*	• •		Mid. and S.
L. Pelisseriana Mill.	*	*	*	*	S. and W.
L. VULGARIS Mill.	*		*	*	Arctic.
L. REPENS Ait.	*	*	l	*	Mid. and S.

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	J.	G.	А.	s.	European Distribution.
ANTIRRHINUM ORONTIUM L Scrophularia aquatica L	. *	*	 	*	Mid. and S. Mid. and S.
S. NODOSA L S. SCORODONIA L SIBTHORPIA EUROPÆA L. VERONICA HEDERÆFOLIA L.	. *	* * #	•••	* ,	S. and W. S. and W.
V. POLITA Fr.	. *	*	*		
V. AGRESTIS L V. BUXBAUMII Ten V. ARVENSIS L	• *	*	*	* *	Mid. and S.
V. SERPYLLIFOLIA L V. OFFICINALIS L.	. *	*		*	Arctic.
V. CHAMÆDRYS L. V. SCUTELLATA L. V. ANAGALLIS L.	••• *	*	*	*	Arctic. Arctic.
V. BECCABUNGA L DIGITALIS PURPUREA L EUPHRASIA OFFICINALIS L PARENTUCELLIA VISCOSA CATUEL	••• * ••• * ••• *	* *	* * *	* * *	Arctic. S. and W.
Odontites rubra Pers Rhinanthus Crista-galli L Pedicularis silvatica L		*	*	*	Arctic.
LENTIBULARIACEÆ. Utricularia minor L.				1	
		. *	• •	1	
OROBANCHACE Æ. Orobanche cærulea Vill. O. major L. O. rubra Sm. O. Hederæ Dubuy O. minor Sm. O. Amethystea Thuill.	· · · · · · · · · · · · · · · · · · ·	*	* * * *	* * *	Mid. and S. Mid. and S. Mid. and S. Mid. and S. Mid. and S. Mid. and S.
PLANTAGINACEÆ.			1	1	
Plantago major L P. lanceolata L. P. maritima L. P. Coronopus L. Littorella lacustris L.	••• * ••• *	* * * *	*   • •   • •	*	Arctic. Arctic.
RUBIACEÆ. Sherardia arvensis L Asperula cynanchica L Galium verum L. G. Mollugo L. G. saxatile L.	••• *	* * * *	* * * *	*   *   *   *   *	Mid. and S. Arctic.
	1	1	- L		

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	J.	G.	А.	s.	European Distribution.
G. PALUSTRE L.	*	*	*		Arctic.
G. APARINE L.	*	*	*	*	Arctic.
RUBIA PEREGRINA L.	*		*	*	S. and W.
					or wirde fri.
CAPRIFOLIACEÆ.				1	
SAMBUCUS NIGRA L	*	*	*	*	1
Lonicera Periclymemum L	*	*	¥-	*	
VALERIANACEÆ.					\$
VALERIANELLA OLITORIA Mœnch	*	*			
V. CARINATA LOISel	*	*	*	*	Mid. and S.
V. ERIOCARPA Desv.	*		*		Mid. and S.
V. DENTATA Poll.		*	*		Mid. and S.
					Linder white to.
DIPSACE Æ.					
DIPSACUS SILVESTRIS Huds	*	*	••	*	Mid. and S.
SUCCISA PRATENSIS Mœnch.	*	• •	• •	• •	Arctic.
KNAUTIA ARVENSIS Coult	• •	*	*	• •	Arctic.
CAMPANULACEÆ.	i I i				
JASIONE MONTANA L.		×	*		
	*	*	*	*	1
COMPOSITÆ.					,
EUPATORIUM CANNABINUM L	*	4		*	
SOLIDAGO VIRGAUREA L	*	•••	•••	• •	Arctic.
Bellis perennis L	×	*	*	¥	
	•••	*	•••	• •	Arctic.
Erigeron acre L	*	*	*	• •	Arctic.
F. MINIMA Fr.	*	*	*	*	Mid. and S.
F. GALLICA L.	*	*		*	Mid. and S.
GNAPHALIUM ULIGINOSUM L	*	*	?	*	Arctic.
G. LUTEO-ALBUM L	*	¥		*	Mid. and S.
INULA CONYZA DC.	*	*		*	Mid. and S.
I. CRITHMOIDES L	*	*	*	*	S. and W.
Pulicaria dysenterica L.	*	*	*		Mid. and S.
P. VULGARIS Gærtn.	÷	*		?	Mid. and S.
BIDENS CERNUA L	*				
B. TRIPARTITA L.	*	*			Arctic.
ANTHEMIS COTULA L	*	*	?	*	
A. NOBILIS L.	*	*	*	*	W. and W. Central
A. ARVENSIS L.	*	* '	•••	*	
ACHILLEA MILLEFOLIUM L	*	*	*	*	Arctic.
DIOTIS CANDIDISSIMA Desf.	*	• •	?	• •	S. and W.
Matricaria inodora L M. Chamomilla L.	*	*	*	*	Arctic.
CHRYSANTHEMUM SEGETUM L.	*	*	• •	*	1
CHATCHICHTER SEGETUM L	*	*	*	*	

J. G A. S.European Distribution.C. LEUCANTHENIUN L.****ARTEMISIA VULGARIS L.****A. ABSINTHIUM L.?***TUSSILAGO FARFARA L.****PETASTRES OFFICINALIS MCench.****S. SILVATIOUS L.****S. SILVATIOUS L.****S. AQUATCUS Huds.****CARDUUS TENUIFLORUS Curt.****Anctic.****CARDUUS TENUIFLORUS Curt.****C. CRISPUS L.****C. RAUCUS TENUIFLORUS Curt.****C. RAUCUS LANCOROLATUM Scop.*****C. ANCLICUM Lobbel.*****C. AAULE All.*****C. SALICUM LObbel.*****C. SALICUM LObbel.*****C. SALICUM LObbel.********C. SALICUM LObbel.*********C. ANCLICUM LObbel.*********************************						
ARTEMISIA VULGARIS L.       *       *       Arctic.         A. ABSINTHIUM L.       ?       *       *       Arctic.         TUSSILAGO FARFARA L.       ?       *       *       Arctic.         SENECIO VULGARIS L.       *       *       *       Arctic.         S. SILVATICUS L.       *       *       *       *       *         S. JACOBÆA L.       *       *       *       *       *       *         Carlina VULGARIS L.       *		J.	G	A.	s. '	
ARTEMISIA VULGARIS L.       *       *       Arctic.         A. ABSINTHIUM L.       ?       *       *       Arctic.         TUSSILAGO FARFARA L.       ?       *       *       Arctic.         SENECIO VULGARIS L.       *       *       *       Arctic.         S. SILVATICUS L.       *       *       *       *       *         S. JACOBÆA L.       *       *       *       *       *       *         Carlina VULGARIS L.       *				-		
ARTEMISIA VULGARIS L.       *       *       Arctic.         A. ABSINTHIUM L.       ?       *       *       Arctic.         TUSSILAGO FARFARA L.       ?       *       *       Arctic.         SENECIO VULGARIS L.       *       *       *       Arctic.         S. SILVATICUS L.       *       *       *       *       *         S. JACOBÆA L.       *       *       *       *       *       *         Carlina VULGARIS L.       *	C. LEUCANTHEMUM L.	*	1			Aratio
A. ABSINTHIUM L					*	
TUSSILAGO FARFARA L.       * * * * * * * * * * * * * * * * * * *		2	*	*	•••	ATCHC,
PTTASITES OFFICINALIS Mœnch		•	R.	*	*	Amedia
SENECIO VULGARIS L Arctic. S. SLVATICUS L		*	*	• •	• •	Arcure,
S. SILVATICUS L				• •	••	Aughte
S. JACOBÆA L. S. AQUATICUS Huds. CARLINA VULGARIS L. ARCTIUM MINUS Bernh. * * * * * ARCTIUM MINUS Bernh. * * * * * CARDUUS TENUIFLORUS Curt. C. NUTANS L. C. CRISFUS L. C. CRISFUS L. C. CRISFUS L. C. CRISFUS L. C. ANGLICUM LOBEL. C. ACAULE ALL. C. AARUENSE Scop. * * * * * C. ACAULE ALL. C. ACAULE ALL		*		*	*	Arctic.
S. AQUATICUS Huds. CARLINA VULGARIS L. ARCTIUM MINUS Bernh. * * * A. NEMOROSUM Léj. CARDUUS TENUIFLORUS Curt. C. ANDIANS L. C. CRISPUS L. C. CRISPUS L. C. CRISPUS L. C. ANGLICUM LOBEL. C. ANGLICUM LINTYBUS L. LAUTUMNALIS L. H. RADICATA L. L. HISPIDUS L. L. HISPIDUS L. L. HISPIDUS L. L. HISPIDUS L. L. AUTUMNALIS L. P. ECHIOIDES L. TARAGORGON MINOR Fr. TARAXACUM OFFICINALE Web. S. ANVERNIS L. S. ANPER HOffm. S.			*		*	
CARLINA VULGARIS L. * * * * * * * * * * * * * * * * * *			*	*	¥	
ARCTIUM MINUS Bernh		*			• •	
*A. NEMOROSUM Léj * * * * Mid. and S. CARDUUS TENUIFLORUS Curt. * * * * * Mid. and S. C. NUTANS L. C. CRISFUS L. CIRSIUM LANCEOLATUM Scop. * * * * Arctic. CIRSIUM LANCEOLATUM Scop. * * * * Arctic. C. ANGLICUM Lobel. * W. Europe. C. ACAULE All. * W. Europe. C. ACAULE All. * W. Europe. C. ACAULE All. * * * * SERRATULA TINCTORIA L. * * * * * C. SCABIOSA L. * * * * * C. ASPERA L. * * * * * S. and W. CHICHORIUM INTYBUS L. * * * * Mid. and S. H. RADICATA L. * * * * Mid. and S. H. RADICATA L. * * * * Mid. and S. L. HISPIDUS L. * * * * Mid. and S. L. HISPIDUS L. * * * * Mid. and S. L. HISPIDUS L. * * * * Mid. and S. L. AUTUMNALIS L. * * * * Mid. and S. L. AUTUMNALIS L. * * * * Mid. and S. S. ARVENSIS L. * * * * Mid. and S. S. ARVENSIS L. * * * Mid. and S. C. CREPIS TARAXACIFOLIA Thuill. * * Mid. and S. C. VIEENS L. * * * Mid. and S. C. VIEENS L. * * * Mid. and S. Mid. and S. H. RIGIDUM Hartm. * * * * Mid. and S. Mid. and S.		*	*	*	*	
CARDUUS TENUIFLORUS Curt.       * * * * *       Mid. and S.         C. NUTANS L.       * * * * *       Arctic.         C. CRISPUS L.       * * * * *       Arctic.         CIRSIUM LANCEOLATUM Scop.       * * * * *       Arctic.         C. PALUSTRE Scop.       * * * * *       Arctic.         C. ANGLICUM Lobel.       * * * *       Mid. and S.         C. ACAULE All.       * * * *       Mid. and S.         C. ACAULE All.       * * * *       Mid. and S.         C. ARVENSE Scop.       * * * *       Mid. and S.         C. ARVENSE Scop.       * * * *       Mid. and S.         C. ASPERA L.       * * * *       Mid. and S.         C. ASPERA L.       * * * *       *         C. ASPERA L.       * * * *       Mid. and S.         C. ASPERA L.       * * * *       Mid. and S.         HYPOCHÆRIS GLABRA L.       * * * *       Mid. and S.         HYPOCHÆRIS GLABRA L.       * * * *       Mid. and S.         L. HISPIDUS L.       * * * *       Mid. and S.         L. HISPIDUS L.       * * * *       Mid. and S.         L. HISPIDUS L.       * * * *       Mid. and S.         TRAGOPOGON MINOR Fr.       * * * *       Mid. and S.         S. ARVENSIS			*	*	••	
C. NUTANS L	CARDUUS TENUIFLOBUS Curt	•••		*		Mid and S
C. CRISPUS L				1	*	mind, and B.
CIRSIUM LANCEOLATUM Scop. C. PALUSTRE Scop. C. AANGLICUM Lobel. C. ACAULE All. C. ACAULE All. C. ACAULE ALL. C. ARVENSE Scop. SERRATULA TINCTORIA L. CENTAUREA NIGRA L. C. SCABIOSA L. C. SCABIOSA L. C. ASPERA L. C. SCABIOSA L. C. ASPERA COMMUNIS L		*	*	1 *	*	Arotio
C. PALUSTRE Scop	CIESTUM LANCEOLATUM Scon	• •	*		••	AICUIC.
C. ANGLICUM Lobel	C PALUSTRE Scop			*	*	Aratio
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C. SCABIOSA L			*	*	• •	
C. ASPERA L		*		*	· ·	
CHICHORIUM INTYBUS L		*	*	*		S. and W.
LAPSANA COMMUNIS L		*	*	*		
HYPOCHÆRIS GLABRA L.       *       *       *       *       Mid. and S.         H. RADICATA L.       *       *       *       *       *       *         LEONTODON HIRTUS L.       *       *       *       *       *       *       Mid. and S.         L. HISPIDUS L.       *       *       *       *       *       *       Mid. and S.         L. HISPIDUS L.       *       *       *       *       *       *       *         PICRIS HIERACIOIDES L.       *       *       *       *       *       Mid. and S.         P. ECHIODES L.       *       *       *       *       *       Mid. and S.         TRAGOPOGON MINOR Fr.       *       *       *       *       *       *         Child and S.       *       *       *       *       *       *       *         Sonchus Oleraceus L.       * </td <td></td> <td>*</td> <td>*</td> <td>*</td> <td></td> <td>Arctic.</td>		*	*	*		Arctic.
H. MACULATA L		*	*	*	*	Mid. and S.
H. MACULATA L	H. RADICATA L.	*	*	*	*	
LEONTODON HIRTUS L		*			. 1	
L. HISPIDUS L		*	*	*	* .	Mid. and S.
L. AUTUMNALIS L			*	*	*	
P. ECHIOIDES L	L. AUTUMNALIS L.	*	*	*		Arctic.
TRAGOPOGON MINOR Fr.        *       *       *          TARAXACUM OFFICINALE Web.       *       *       *       *       Arctic.         SONCHUS OLERACEUS L.       *       *       *       *       *       *         S. ASPER Hoffm.       *       *       *       *       *       *       *         S. ASPER Hoffm.       *       *       *       *       *       *       *         S. ARVENSIS L.       * <td>PICRIS HIERACIOIDES L.</td> <td>*</td> <td>Herm</td> <td>*  </td> <td></td> <td></td>	PICRIS HIERACIOIDES L.	*	Herm	*		
TARAXACUM OFFICINALE Web.       *<	P. ECHIOIDES L	*	*	*	*	Mid. and S.
Sonchus oleraceus L.       *	TRAGOPOGON MINOR Fr.			*		
S. ASPER Hoffm	TARAXACUM OFFICINALE Web	*	*	*	*	Arctic.
S. ARVENSIS L	SONCHUS OLERACEUS L.	*	*	*	*	
S. ARVENSIS L	S. ASPER Hoffm	*	*	*	*	
C. VIRENS L		*	*	*	*	Arctic.
C. BIENNIS L	CREPIS TARAXACIFOLIA Thuill	*		*		Mid. and S.
C. BIENNIS L	C. VIRENS L.	*	*	*	*	Mid. and S.
H. RIGIDUM Hartm *		*	*			
	HIERACIUM PILOSELLA L.	*	*	*	*	
H. UMBELLATUM L * * * Arctic.	H. RIGIDUM Hartm	*				
	H. UMBELLATUM L.	*	*	*	*	Arctic.
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\* This plant is included, not as a good "species," but as representing A. MAJUS,

II. THE DISTRIBUTION OF THE SPECIES AMONG THE VARIOUS Islands of the Archipelago will be seen from the following Table.

Total nu	umber o	f Channel Islands species	696
• •	,,	Jersey species	649
,,	,,	Guernsey and Herm species	593
• •	,,	Alderney species	442
,,	,,	Sark and Brechou species	375
Number	of spec	ies common to all four Islands	309
,,	,	, peculiar to Jersey	81
,,	,	, ,, Guernsey	35
,,	,	, ,, Alderney	11
,,	,	, ,, Sark	<b>2</b>

The species peculiar to Jersey are: Nitella flexilis Ag., Adiantum Capillus-Veneris L., Pilularia globulifera L., Zostera nana Roth., Potamogeton natans L., Panicum sanguinale L., P. Crus-galli L., Setaria viridis Beauv., Milium effusum L., Corynephorus canescens P. Beauv., Deschampsia flexuosa Trin., Nardus stricta L., Agropyrum acutum R. & S., Scirpus fluitans L., S. pungens Vahl, Cladium Mariscus R. Br., Carex divisa Huds., C. pendula Huds., C. binervis Sm., C. Pseudo-Cyperus L., Juncus obtusiflorus Ehrh., Luzula Forsteri DC., Allium sphærocephalum L., Narcissus Pseudo-Narcissus L., Rumex maritimus L., Polygonum minus Huds., Stellaria Holostea L., Mærhingia trinervia Clairv., Dianthus prolifer L., D. gallicus L., Ranunculus ophioglossifolius Vill., R. chærophyllus L., Papaver Argemone L., Corydalis claviculata DC., Brassica Cheiranthus Vill., Nasturtium palustre DC., Hutchinsia petræa R. Br., Reseda lutea L., Drosera rotundifolia L., Spiræa Ulmaria L., Fragaria vesca L., Potentilla argentea L., Genista tinctoria L., Medicago minima Desv., Trifolium Molinerii Balb., T. strictum L., Hippocrepis comosa L., Geranium pusillum L., G. lucidum L., Oxalis Acetosella L., Mercurialis perennis L., Althæa officinalis L., Elatine hexandra DC., Daphne Laureola L., Ludwigia apetala Wallr., Chærophyllum temulum L., Carum verticillatum Koch, Angelica silvestris L., Cornus sanguinea L., Erica Tetralix L., Primula veris L., Lysimachia Nummularia L., Armeria plantaginea Willd., Vinca minor L., Anchusa sempervirens L., Echium plantagineum L., Lamium album L., L. Galeobdolon Crantz, Stachys Betonica L., Mentha alopecuroides Hull, Linaria Pelisseriana Mill., Littorella lacustris L., Succisa pratensis Mœnch., Solidago Virgaurea L., Bidens cernua L., Diotis candidissima Desf., Petasites officinalis Mœnch., Cirsium anglicum Lobel, Serratula tinctoria L., Hypochæris maculata L., Hieracium rigidum Hartm.

Many of these are abundant and characteristic Jersey species.

The species peculiar to Guernsey are: Nitella translucens Ag., Chara baltica Bruz., Ophioglossum lusitanicum L., Botrychium Lunaria L., Ruppia rostellata Koch., Milium scabrum Merl., Polypogon monspeliensis Desf., Lagurus ovatus L., Cynodon Dactylon Pers., Bromus commutatus Schrad., Hordeum maritimum With., Carex riparia Curt., Scirpus pauciflorus Lightf., Salicornia herbacea L., Suæda fruticosa Forsk., Chenopodium ficifolium Sm., Polygonum maritimum L., Lepidium latifolium L., Potentilla Comarum Nestl., Prunus instititia L., Lotus tenuis W. & K., Callitriche truncata Guss., Pirola rotundifolia L., Statice Limonium L., Cicendia pusilla Griseb., Lithospermum officinale L., Ajuga reptans L., Teucrium Scordium L., Calamintha officinalis Mœnch., Mentha pubescens Willd., Verbascum virgatum With., Utricularia minor L., Aster Tripolium L., Senecio aquaticus Huds., Carduus crispus L.

The species peculiar to Alderney are: Equisetum maximum Lam., Briza media L., Salix aurita L., Ranunculus Lingua L., Cochlearia officinalis L., Rubus Idæus L., Anthriscus silvestris Hoffm., Statice lychnidifolia De Gir., Calamintha Clinopodium Spenn., Arctium nemorosum Léj., Tragopogon minor Fr.

The species peculiar to Sark are: Lysimachia nemorum L., and Orobanche rubra Sm.

It will be seen that the difference between the floras of the various Islands is far greater than might have been expected. The islands are probably all of the same geological age. They are all excressences upon the same submerged platform which projects from the coast of France and fills up the angle between the coasts of Normandy and Brittany. The geological features are the same in all, the bulk of the islands consisting of crystalline and metamorphic rocks of great antiquity, overlaid in places with Quaternary deposits of gravel and clay, with low-lying sandy tracts on portions of the coasts. Limestone and chalk are entirely absent. The

general character of all the islands is that of flat or sloping tablelands, intersected by valleys to a greater or less extent. Nor does there seem to be anything in the differences of climate, so far as reliable data exist for ascertaining them, which can account for such differences in the vegetation. Over a comparatively restricted area, where more or less uniform conditions prevail, a much more uniform flora might have been expected, and there can be little doubt that at some remote period, when a far larger land surface was exposed, the flora was much more uniform. Whether the whole of the submerged platform was ever elevated above the surface of the sea since the arrival of our present species of plants it is impossible to say, but there is conclusive evidence of variations of level sufficient to cause a very great increase (and also decrease) of the present land surface. The islands were doubtless at some former period much more nearly connected with one another and with France, and may well have been covered with a more or less uniform vegetation of the Continental type. The result of subsequent oscillations would be to destroy some of the rarer plants of the district by submergence, and to render others still more local than they were before. As the land area contracted the struggle for existence would become more intense, and the preservation of rare or delicate species more and more problematical, and these are just the conditions under which plants would tend to become local.

If, in addition to this, it is supposed that the South European species which form the most interesting portion of the Channel Islands Flora, particularly in Jersey, were subsequent arrivals, the differences in the indigenous vegetation of the various islands seems to be to a certain extent accounted for.

The presence of one or two of the maritime species peculiar to Guernsey may be explained by the fact that there are still salt marshes in that island, while in Jersey they have been drained and cultivated, and in Alderney and Sark they apparently never existed.

## III. Relation of the Channel Islands Flora to the Flora of Europe in general.

The Channel Islands plants may be grouped as follows from the point of view of their European distribution;—

1. Plants which extend all over Europe, exclusive of	
the Arctic Regions	340
2. Plants which penetrate into the Arctic Circle	
3. Plants of Central and South Europe	102
4. Plants of North Europe	4
5. Plants of West and West Central Europe	29
6. Plants of South and West Europe	59

Of the three first groups not much need be said. They represent three plant-waves, as it were, which inundated Europe from the south-east after the close of the last Glacial Period, and their northern limit is simply fixed by the varying capacity of the species to withstand a decreasing temperature. They form the bulk of the Channel Islands Flora, and all belong to the main body of the Flora of Europe.

The fourth group consists of those plants which have their home on the coasts and the moors of North Europe, and whose progress south is limited by the increase of temperature. This group, as was to be expected, is very poorly represented in Jersey, which enjoys a milder climate than its latitude would seem to entitle it to, owing to the benevolent influence of the Atlantic Ocean. The plants which may possibly be considered to belong to it are: Carex pulicaris L., Alsine peploides Wahl., Cochlearia officinalis L., C. danica L. These are to be regarded as related to the Arctic Circumpolar Flora.

The fifth group may conveniently be subdivided into two.

a. Plants of West Europe proper.—Asplenium marinum L., Dianthus gallicus Pers., Lepidium Smithii Hooker, Rhaphanus maritimus Sm., Sedum anglicum Huds., Ulex Gallii Planch., U. nanus Forst., Trigonella ornithopodioides DC., Euphorbia Portlandica L., Conopodium denudatum Koch., Statice lychnidifolia De Gir., Cirsium anglicum Lobel.

b. Plants of West and West-Central Europe.—Mibora verna Adans., Scirpus pungens Vahl., Carex binervis Sm., C. punctata Gaud., Scilla festalis Salisb., Cerastium tetrandrum Curt., Mœnchia erecta Ehrh., Corydalis claviculata DC., Diplotaxis muralis DC., Crassula Tillæa, Ulex europæus L., Hippocrepis comosa L., Hypericum pulchrum L., H. elodes L., Carum verticillatum Koch., Scutellaria minor Huds., Anthemis nobilis L.

The origin of this group of plants is very doubtful. Some of

them, e.g., Lepidium Smithii and Rhaphanus maritimus, are apparently only specialised forms of species which belong to the general European Flora. Others, e.g., the three species of Ulex, suggest a connection with the so-called \* "Atlantic" Flora of South-west Europe and the Islands of the Western Atlantic, which is better represented in the south of Ireland by Erica ciliaris L., E. vagans L., E. mediterranea L., and Dabœcia polifolia Don. All are species which are most at home on the Atlantic seabord, and thin out more or less rapidly as you advance eastwards.

The sixth group is by far the most interesting, and deserves special consideration. The plants which it includes are : Gymnogramme leptophylla Desv., Adiantum Capillus-Veneris L., Asplenium lanceolatum Huds., Ophioglossum lusitanicum L., Isoëtes Hustrix Dur., Phalaris minor Retz., Milium scabrum Merl., Lagurus ovatus L., Briza minor L., Festuca uniglumis Soland., Catapodium loliaceum Link., Scleropoa rigida Gris., Bromus madritensis L., B. maximus Desf., Scirpus Savii Seb. & Maur., Arum italicum Mill., Juncus acutus L., Scilla autumnalis L., Ruscus aculeatus L., Romulea Columnæ Seb. & Maur., Iris fœtidissima L., Polygonum Raii Bab., P. maritimum L., Suæda fruticosa Forsk., Spergularia rupestris Lebel, Ranunculus ophioglossifolius Vill., R. chærophyllus L., Brassica Cheiranthus Vill., Matthiola sinuata R. Br., Cotyledon Umbilicus L., Ononis reclinata L., Trifolium maritimum L., T. Molinerii Balb., T. glomeratum L., T. suffocatum L., T. strictum L., Lotus hispidus Desf., L. angustissimus L., Ornithopus ebracteatus Brot., Erodium maritimum L'Herit., Linum angustifolium Huds., Euphorbia Peplis L., Lavatera arborea L., Frankenia lævis L., Hypericum linarifolium Vahl, Œnanthe crocata L., Armeria plantaginca Willd., Statice binervosa G. E. Smith, Ciccodia pusilla Griseb., Anchusa sempervirens L., Echium plantagincum L., Linaria Pelisseriana Mill., Scrophularia Scorodonia L., Sibthorpia europæa L., Parentucellia viscosa Caruel, Rubia peregrina L.,

<sup>\*</sup> I do not use the term "Atlantic" in Watson's sense. He only took into account the *British* distribution of the plants in the formulation of his "*types*," and though it was a great step at the time to emphasise the importance of geographical distribution within the area he was considering, his divisions have done much to limit the views of British botanists, and to encourage them to be content to neglect everything that lay outside. We want a new set of types, based on the general European distribution of the plants.

Inula crithmoides L., Diotis candidissima Desf., Centaurea aspera L.

In this list are many species which are abundant in W. Europe. Many of them reach the southern counties of England, a few get as far as Wales, one or two as far as S. Scotland, yet the base from which they spread is S. Europe. But besides them, there is a considerable number of plants whose proper home is on the shores of the Mediterranean, and which straggle up the west coast of France, becoming rarer as they advance towards the north. The names of these are printed in italics, and they constitute the most interesting element in the Channel Islands Flora. It is not difficult to explain their presence. It was to be expected à priori that the mildness of the maritime climate of W. Europe would enable some of the southern plants to advance much farther north than is possible in the interior of the Continent, and experience has proved that this expectation has been justified; but few botanists would have expected to find so bright a gleam of the sunshine of the Mediterranean so far north. This feature is emphasised by the presence of one or two naturalised aliens which have come from the south-Centaurea paniculata L., Scabiosa maritima L., Allium triquetrum L., Briza maxima L., and Silene quinquevulnera L.

The attention of an English botanist cannot fail to be immediately attracted by this Mediterranean element, which is certainly most conspicuous in Jersey. Some of the plants are abundant. Romulea Columnæ covers the short turf all round the island in the spring, and Armeria plantaginea and Echium plantagineum form enormous sheets of colour in June and July. The abundance of the last-named plant is remarkable. It does not occur in the other islands, or in Normandy or Brittany, and is very rare north of the Gironde, but it must be regarded as native, for it was plentiful about St. Helier's in Dr. Sherard's day. Many of the other plants are plentiful enough in the localities in which they occur. Others, again, which are found in the southern counties of England begin to assume a southern look. The small species of Trifolium, for instance, grow far larger, and there is a form of Ranunculus Ficaria which is about half-way between the English plant and the S. European var. grandifiora.

Another interesting point is that the Channel Islands are apparently the extreme northern limit to which some of the plants of this group have been able to attain. They have travelled up the coast of France so far, but been unable to cross the Channel. They are Gymnogramme leptophylla (Jersey and perhaps Guernsey), Ophioglossum lusitanicum (Guernsey), Isoëtes Hystrix (Guernsey), Phalaris minor Retz. (if native in Guernsey), Milium scabrum Merl. (Guernsey), Lagarus ovatus (Guernsey), Bronus maximus (Jersey and Normandy), Dianthus gallicus (Jersey), Ranunculus chærophyllus L. (Jersey), Ononis reclinata (Guernsey and Alderney: alien in S. Scotland), Ornithopus ebracteatus (Guernsey, Alderney, and Scilly Islands), Statice lychnidifolia (Alderney), Armeria plantaginea (Jersey and Normandy), Cicendia pusilla (Guernsey and Normandy), Echium plantagineum (Jersey), Centaurea aspera (Jersey).

#### IV. Relation of the Channel Islands Flora to that of the Neighbouring Parts of France.

All the Channel Islands plants occur in either Normandy or Brittany with the exception of Hypocheris maculata (Jersey), the newly discovered Milium scabrum (Guernsey), Echium plantagineum (Jersey), and perhaps Centaurea aspera, which appears to be possibly native in Jersey, but is introduced in both Normandy and Brittany. With these three exceptions the whole Channel Islands Flora reappears in Brittany, but there are several plants, all belonging to the S. European group, which are not found in Normandy. They are Gynnogramme leptophylla, Adiantum Capillus-Veneris, Ophioglossum lusitanicum, Isoëtes Hystrix, Dianthus gallicus, Ononis reclinata, Ornithopus ebracteatus, and Linaria Pelisseriana. This fact seems to indicate that the southern species have reached the Channel Islands by some land connection existing in former times with the coast of Brittany.

#### V. NATURALISED ALIENS AND CASUALS.

Thanks to the mildness of the winters and the large number of hours of sunshine, there are many interesting Naturalised Aliens in the Channel Islands, some of which could not possibly be distinguished from the native flora apart from a knowledge of their origin. I will mention some of the more remarkable. Allium triquetrum L. (S.W. Europe) is abundant in the hedges in Guernsey, and is spreading in Jersey.

Silene quinquevulnera L. (a southern variety of S. gallica) is locally plentiful in Jersey and Guernsey.

Scabiosa maritima L. (S. Europe) is well established in Jersey.

Centaurea paniculata L. (S. Europe) covers a small area in St. Ouen's Bay, Jersey, to the exclusion of everything else.

A very interesting Guernsey alien is Gunnera scabra Ruiz. & Pav., a gigantic Chilian plant.

Erigeron mucronatum DC. (Mexico) is well established on old walls in Guernsey.

Centranthus ruber DC. grows in enormous masses on the slopes of Fort Regent in Jersey, and is common elsewhere both in Jersey and Guernsey.

Gnaphalium undulatum L. (S. Africa) is common in dry, rocky places in the south-west of Jersey.

Enothera odorata Jacq. (Patagonia) is abundant in sandy places in some parts of Jersey and Guernsey.

Portulaca oleracea L. (Europe) is a common garden weed in St. Helier's.

The number of Casuals is also very large. Much seed is imported every year from the Continent into Jersey, and the great, bare, semi-cultivated stretch of sand in St. Ouen's Bay, where the crops are not thick enough to stiffe the weeds, often provides a congenial home for introduced species for a year or two. I have included in the Flora those plants of the occurrence of which I had tolerably conclusive evidence, but there must have been many more, and every year one or two fresh species are discovered.

#### VI. EXTINCTIONS.

The progress of cultivation has had its inevitable effect upon the flora of these small Islands. In Jersey in particular, considerable salt marshes have been drained and cultivated. In a meadow near Samarès, in which a trench had been opened for the purpose of laying a drain, and which looked on the surface like an ordinary, natural field, I came upon the following interesting geological section. (a) An excellent thick turf. (b) A few inches of very good soil. (c) About six inches of broken crockery and glass. It was all "made ' land. Again, elaborate and costly sea-walls are being built all round the low-lying parts of the coast, and the botanical features of the foreshore entirely obliterated. In the case of Alderney and Sark it seems impossible to tell what plants have become extinct, as no early records exist which can be relied on. The "Flora Sarnica" records, when unconfirmed, are absolutely unreliable. <sup>1</sup>In Jersey and Guernsey the following once native plants have almost certainly disappeared :—

(1) Jersey.—Pilularia globulifera, Triglochin maritimum, Catabrosa aquatica, Milium effusum, Polygonum minus, Rumex maritimus, Atriplex portulacoides, Sagina nodosa, Ranunculus ophioglossifolius, Nasturtium palustre, Euphorbia Peplis, Ludwigia apetata, Cynoglossum officinale, Mentha Pulegium, Bidens cernua, B. tripartita, Diotis candidissima.

(2) Guernsey.—Botrychium Lunaria, Typha latifolia, Suæda fruticosa, Hippuris vulgaris, Euphorbia Peplis, Althæa officinalis, Frankenia lævis, Statice Limonium, Utricularia minor, Veronica scutellata, Pulicaria vulgaris, Bidens tripartita.

# VII. Attention may perhaps be drawn to the following Points of Interest.

(a) The preponderance of small Leguminosæ belonging to the genera Trifolium, Lotus, Vicia, Medicago, Ornithopus and Trigonella is a very marked feature.

(b) The genera containing the greatest number of species are Carex (25), Juncus (11), Rumex (9), Polygonum (9), Ranunculus (15), Trifolium (15), Veronica (11).

(c) The wealth of colour of the Jersey plants in particular is very striking. Besides the ordinary species of Gorse, Broom, Heather, and Poppy, which make a great show anywhere in W. Europe, there are acres of Armeria plantaginea and huge masses of Echium plantagineum and Centranthus ruber, and on the sandy ground in the west of the Island Erucastrum incanum, Brassica Cheiranthus, and Rhaphanus maritimus are most conspicuous. The colours of the various species of Orchis which adorn the damp meadows are wonderfully rich, and there is abundance of the beautiful Matthiola sinuata on the coast of St. Ouen's Bay.

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Generic names not adopted in Engler's system are printed in Italics.

Acer, 16, 107	Ammi, 18
Aceras, 9	Ammophila, 6, 39
Achillea, 24, 146	Anacamptis, 9, 61
Aconitum, 12	Anagallis, 20, 120
Acorus, 7, 54	Anaphalis, 24
Actæa, 12	Anchusa, 20, 125
Actinocarpus, see Damasonium	Andromeda, 19
Adiantum, 3, 30	Androsæmum, see Hypericum
Adonis, 13	Anemone, 12
Adoxa, 23	Angelica, 18, 118
Ægilops, 157	Antennaria, 24
Ægopodium, 18, 117	Anthemis, 24, 146
Æthusa, 18, 118	Anthoxanthum, 5, 38
Agraphis, see Scilla	Anthriscus, 18, 114
Agrimonia, 15, 92	Anthyllis, 15, 99
Agropyrum, 7, 47	Antirrhinum, 22, 134
Agrostemma, 12, 73	Apargia, see Leontodon
Agrostis, 6, 39	Apera, 6
Aira, 6, 40	Apium, 18, 116
Ajuga, 21, 161, 182	Aquilegia, 12
Alchemilla, 15, 92, 160	Arabis, 14
Alisma, 5, 36	Arbutus, 19
Alliaria, 13, 81	Archangelica, see Angelica
Allium, 8, 57	Arctium, 24, 150
Allosurus, see Cryptogramme	Arctostaphylos, 19
Alnus, 10, 63	Arenaria, 11, 72, 159
Alopecurus, 6, 38	Aristolochia, 10
Alsine, 11, 72	Armeria, 20, 121
Althæa, 17, 108	Armoracia, see Cochlearia
Alyssum, 14, 85, 86	Arnoseris, 24, 162
Amarantus, 11, 69	Arrhenatherum, 6, 41

Artemisia, 24, 148, 162 Arthrolobium, see Ornithopus Arum, 7, 54 Arundo, see Phragmites Asarum, 10 Asparagus, 8, 58 Asperugo, 20 Asperula, 22, 139 Aspidium, 4, 32, 158 Asplenium, 3, 31 Aster, 23, 162, 184 Astragalus, 15 Astrantia, 18 Athamanta, see Seseli Athyrium, 3, 32 Atriplex, 11, 68 Atropa, 21, 161 Atropis, 6, 43 Avena, 6, 40, 158 Azalea, see Loiseleuria

#### в

Ballota, 21, 129 Barbarea, 13, 83 Barkhausia, see Crepis Bartschia, 22, 136 Batrachium, see Ranunculus Bellis, 23, 143 Berberis, 13, 160 Berteroa, 14, 86 Beta, 11, 67 Betonica, see Stachys Betula, 10, 62 Bidens, 24, 145 Blackstonia, see Chlora Blechnum, 3, 31 Blysmus, see Scirpus Boretta, see Dabœcia Borrago, 20, 124 Botrychium, 4, 167 Brachypodium, 7, 46 Brassica, 13, 82, 160

Briza, 6, 42, 158 Bromus, 7, 45, 158 Brunella, 21, 128 Bryanthus, see Phyllodoce Bryonia, 23, 162 Buda, see Lepigonum Bunias, 14, 86 Bunium, 18, 117 Bupleurum, 18, 116 Bursa, see Capsella Butomus, 5 Buxus, 16

# С

Cakile, 13, 81 Calamagrostis, 6, 39 Calamintha, 21, 161, 182 Callitriche, 16, 106 Calluna, 19, 119 Caltha, 12, 75 Calystegia, 20, 123 Camelina, 14 Campanula, 23 Cannabis, 64 Capsella, 14, 85 Cardamine, 14, 84 Carduus, 24, 150, 162 Carex, 7, 50, 159 Carlina, 24, 149 Carpinus, 10, 62 Carum, 18, 117 Castanea, 10, 63 Castalia, see Nymphæa Catabrosa, 6, 42 Catapodium, 6, 45 Caucalis (cf. Torilis), 18, 115 Centaurea, 24, 151, 162 Centranthus, 23, 141 Centunculus, 20, 121 Cephalanthera, 9 Cerastium, 11, 70 Ceratophyllum, 12, 160

Ceterach, see Asplenium Chærophyllum, 18, 114 Chamagrostis, see Mibora Chara, 3, 29, 158 Cheiranthus, 14, 85 Chelidonium, 13, 78 Chenopodium, 11, 67, 159 Chlora, 20 Chrysanthemum, 24, 148 Chrysosplenium, 14, 88, 160 Cicendia, 20, 181 Cichorium, 24, 153 Cicuta, 18, 161 Circæa, 17, 113 Cirsium, 24, 150 Cladium, 7, 50 Claytonia, 11 Clematis, 12, 76 Clinopodium, see Satureia Cnicus, see Cirsium Cochlearia, 13, 80, 160 Colchicum, 8 Comarum, see Potentilla Conium, 18, 115 Conopodium, 18, 117 Conringia, 14, 86 Convallaria, 8 Convolvulus, 20, 123 Conyza see Inula Coralliorrhiza, 9 Coriandrum, 18, 161 Cornus, 19, 119 Coronopus, 13, 80 Corrigiola, 12 Corydalis, 13, 79 Corylus, 10, 62 Corynephorus, 6, 40 Cotoneaster, 15 Cotyledon, 14, 87 Cotula, 24 Crambe, 13, 83 Crassula, 14, 87

Cratægus, see Mespilus Crepis, 25, 155 Crithmum, 18, 117 Crocus, 8 Cryptogramme, 3 Cucubalus, 12, 159 Cuscuta, 20, 124 Cyclamen, 20 Cymbalaria, 22, 133 Cynodon, 6, 169 Cynoglossum, 20, 124 Cynosurus, 6, 42 Cyperus, 7, 48, 159 Cypripedilum, 9 Cystopteris, 4 Cytisus, 15, 94

# D

Dabœcia, 19 Dactylis, 6, 42 Damasonium, 5 Danthonia, see Triodia Daphne, 17, 111 Datura, 22, 132 Daucus, 19, 118 Delphinium, 12, 76 Dentaria, 14 Deschampsia, 6, 40 Deyeuxia, see Calamagrostis Dianthus, 12, 75, 160 Digitalis, 22, 136 Digitaria, see Panicum Diotis, 24, 146 Diplotaxis, 13, 82 Dipsacus, 23, 142 Doronicum, 24 Draba, 14, 85 Drosera, 14, 86 Dryas, 15 E Echinochloa, see Panicum

Echinospermum, 126

Echium, 21, 126 Elatine, 17, 109 Eleocharis, see Heleocharis Elisma, 5 Elodea, 5, 36 Elymus, 7 Empetrum, 16 Endymion, see Scilla, Epilobium, 17, 112, 161 Epimedium, 13 Epipactis, 9, 61 Epipogon (Epipogum), 9 Equisetum, 4, 33, 158 Eranthis, 12 Erica, 19, 119 Erigeron, 23, 143 Eriocaulon, 7 Eriophorum, 7, 48 Erodium, 16, 103 Erophila, see Draba Erucastrum, 13, 82 Ervum, see Vicia Eryngium, 18, 114, 161 Erysimum, 14 Erythræa, 80, 122, 161 Eufragia, see Parentucellia Euonymus, 16 Eupatorium, 23, 143 Euphorbia, 16, 105, 160 Euphrasia, 22, 136

#### $\mathbf{F}$

Fagopyrum, 11, 67 Fagus, 10, 63 Falcaria, 18, 117 Fedia, see Valerianella Festuca, 6, 43, 158 Fibichia, see Cynodon Ficaria, see Ranunculus Filago, 24, 143 Fistularia, 22, 187 Fœniculum, 18, 118 Fragaria, 15, 90 Frankenia, 17, 110 Fraxinus, 20, 122 Fritillaria, 8 Fumaria, 13, 79

#### G

Gagea, 8 Galanthus, 8, 58 Galeobdolon, see Lamium Galeopsis, 21, 128, 161 Galinsoga, 24 Galium, 23, 140, 161 Gastridium, 6, 158 Genista, 15, 93 Gentiana, 20 Geranium, 16, 102, 160 Geum, 15, 91 Githago, see Agrostemma Gladiolus, 9 Glaucium, 13, 78 Glaux, 19, 120 Glecoma, 21, 127 Glyceria, 6, 43, 158 Gnaphalium, 24, 144, 162 Goodyera, 9 Grammitis, see Gymnogramme Gunnera, 193 Gymnadenia, 9 Gymnogramme, 3, 30

#### н

Habenaria, 9 Halimus, see Atriplex Hedera, 17, 114 Heleocharis, 7, 50 Heleogiton, see Scirpus Helianthemum, 17 Helleborus, 12 Helminthia, see Picris Helosciadium, see Apium Heracleum, 19, 118

Herminium, 9 Herniaria, 12, 73 Hesperis, 14 Hieracium, 25, 156, 162 Hierochloe, 5 Hippocrepis, 15, 100 Hippophaë, 17 Hippuris, 17 *Hirschfeldia*, see Erucastrum Holcus, 6, 39 Holosteum, 11, 159 Homalocenchrus, see Leersia Honckenia, see Alsine Hordeum, 7, 48 Hottonia, 19 Humulus, 10, 63 Hutchinsia, 14, 85 Hyacinthus, see Scilla Hydrocharis, 5 Hydrocotyle, 17, 114 Hymenophyllum, 3 Hyoscyamus, 21, 132 Hypericum, 17, 108, 160 Hypochæris, 25, 153 Hypopitus, see Monotropa

# Ι

Iberis, 13, 80 Ilex, 16, 107 Illecebrum, 12, 159 Impatiens, 16 Inula, 24, 145 Iris, 8, 59 Isatis, 13 Isnardia, see Ludwigia Isoëtes, 4 Isolepis, see Scirpus

#### J

Jasione, 23, 142 Juncus, 7, 55, 159 Juniperus, 4

#### Κ

Knappia, see Mibora Knautia, 23 Kobresia, 7 Kœleria, 6, 41 Koniga, see Lobularia

# $\mathbf{L}$

Lactuca, 25, 162 Lagurus, 6, 39 Lamium, 21, 128 Lamprothamnus, 3 Lapsana, 24, 153 Lappa, see Arctium Lastrea, see Aspidium Lathræa, 22 Lathyrus, 16, 101 Lavatera, 17, 107 Leersia, 5 Lemna, 7, 54 Leontodon, 25, 154, 162 Leonurus, 21, 129 Lepidium, 13, 79, 160 Lepigonum, see Spergularia Lepturus, 7, 47 Leucanthemum, see Chrysanthe mum Leucoium, 8 Ligusticum, 18 Ligustrum, 20, 122 Lilium, 8 Limnanthemum, 20 Limosella, 22 Linaria, 22, 133, 161 Linnæa, 23 Linosyris, see Aster Linum, 16, 104 Liparis, 9 Listera, 9, 61 Lithospermum, 21, 126, 181 Littorella, 22, 139 Lloydia, 8

Lobelia, 23 Lobularia, 14, 85 Loiseleuria, 19 Lolium, 7, 47 Lonicera, 23, 141 Lotus, 15, 99 Ludwigia, 17, 112 Luzula, 7, 56 Lychnis, 12, 74 Lychnothamnus, 3 Lycium, 21, 131 Lycopodium, 4 Lycopsis, 20, 125 Lycopus, 21, 131 Lysimachia, 19, 120 Lythrum, 17, 111

#### Μ

Maianthemum, 8 Malachium, see Stellaria Malaxis, 9 Malva, 17, 108, 160 Mariana, see Silybum Marrubium 21, 127 Matricaria, 24, 147 Matthiola, 14, 86 Meconopsis, 13 Medicago, 15, 95 Melampyrum, 22 Melandryum, 12, 74 Melica, 6 Melilotus, 15, 95 Melissa, 21, 130 Melittis, 21 Mentha, 21, 131 Menyanthes, 20, 123 Menziesia, see Phyllodoce Mercurialis, 16, 105 Mertensia, 21 Mespilus, 15, 89 Meum, 18 Mibora, 6, 39

Mierocala, 20, 122 Milium, 6, 38 Mimulus, 22 Mærhingia, 11, 72 Mænchia, 11, 71 Molinia, 6, 41 Moneses, see Pirola Monotropa, 19 Montia, 11, 69 Muscari, 8, 58 Myosotis, 21, 125, 161 Myosurus, 12, 160 Myrica, 9 Myriophyllum, 17, 113, 161 Myrrhis, 18

#### Ν

Naias, 5 Narcissus, 8, 59 Nardosmia, see Petasites Nardus, 7, 47 Narthecium, 7 Nasturtium, 13, 84 Neckeria, see Corydalis Neotinea, 9 Neottia, 9 Nepeta, 21, 161 Nephrodium, see Aspidium Nitella, 3, 29, 158 Nuphar, 12 Nymphæa, 12, 75

# 0

Obione, see Atriplex Odontites, 22, 136 Enanthe, 18, 117, 161 Enothera, 17, 118 Onobrychis, 15 Ononis, 15, 94 Onopordon, 24, 162 Ophioglossum, 4, 33 Ophrys, 9, 60

Orchis, 9, 60 Origanum, 21, 130 Ornithogalum, 8, 159 Ornithopus, 15, 100 Orobanche, 22, 137, 161 Osmunda, 4, 32 Oxalis, 16, 104 Oxyria, 10 Oxytropis, 15

#### Ρ

Pæonia, 12 Panicum, 5, 37 Papaver, 13, 78 Parentucellia, 22, 136 Parietaria, 10, 64 Paris, 8 Parnassia, 14 Pastinaca, 19, 118 Pedicularis, 22, 137, 161 Peplis, 17, 111 Petasites, 24, 149 Petroselinum, 18, 116 Peucedanum, 18, 118, 161 Phalaris, 5, 37 Phegopteris, 4 Phleum, 6, 38, 158 Phragmites, 6, 41 Phyllodoce, 19 Physospermum, 18 Phyteuma, 23 Picris, 25, 154 Pilularia, 4, 33 Pimpinella, 18, 161 Pinguicula, 22, 161 Pinus, 4, 34 Pirola, 19, 180 Pirus, 15, 88 Plantago, 22, 138, 161 Platanthera, 9 Pneumaria, see Mertensia Poa, 6, 43, 158

Polemonium, 20 Polycarpon, 11, 73 Polygala, 16, 105, 160 Polygonatum, 8 Polygonum, 11, 65, 159 Polypodium, 3, 30 Polypogon, 6, 168 Polystichum, see Aspidium Populus, 9, 61 Portulaca, 11, 70 Potamogeton, 5, 35 Potentilla, 15, 91 Poterium, see Sanguisorba Prenanthes, 25 Primula, 19, 119 Prunella, see Brunella Prunus, 15, 93, 160 Psamma, see Ammophila Pteris, 3, 30 Pulicaria, 24, 145 Pulmonaria, 20 Pyrola, see Pirola

# Q

Quercus, 10, 63

# R

Radiola, 16, 104 Ranunculus, 13, 76, 160 Reseda, 14, 86 Rhanmus, 16 Rhaphanus, 16 Rhinanthus, 22, 137 Rhynchospora, 7 Ribes, 14 Ræmeria, 13 Romulea, 8, 59 *Roripa, see* Nasturtium Rosa, 15, 92 Rubia, 23, 140 Rubus, 15, 89 Rumex, 10, 64

Ruppia, 5, 158, 168 Ruscus, 8, 58

#### S

Sagina, 11, 71 Sagittaria, 5 Salicornia, 11, 159, 173 Salix, 9, 62, 159 Salsola, 11, 69 Salvia, 21, 130 Sambucus, 23, 141, 162 Samolus, 19, 120 Sanguisorba, 15, 92, 160 Sanicula, 18 Saponaria, 12, 75 Sarothamnus, see Cytisus Satureia, 21 Saussurea, 24 Saxifraga, 14, 88 Scabiosa, 23, 142, 162 Scandix, 18, 115 Scheuchzeria, 5 Scheenus, 7, 50 Schollera, see Vaccinium Scilla, 8, 57 Scirpus, 7, 49, 159 Scleranthus, 12, 73 Sclerochloa, Reichb., see Scleropoa Scleropoa, 6, 45, 158 Scolopendrium, 3, 32 Scrophularia, 22, 134 Scutellaria, 21, 127 Sedum, 14, 87 Selaginella, 4 Selinum, 18 Sempervivum, 14, 87 Senebiera, see Coronopus Senecio, 24, 149, 162 Serrafalcus, see Bromus Serratula, 24, 151 Seseli, 18

Sesleria, 6 Setaria, 5, 37, 157 Sherardia, 22, 139 Sibbaldia, 15 Sibthorpia, 22, 134 Sieglingia, see Triodia Silaus, 18 Silene, 12, 74, 157, 159 Siler, 19 Silvbum, 24, 151 Simethis, 8 Sinapis, 13, 81 Sison, 18, 161 Sisymbrium, 13, 81 Sisyrinchium, 9 Sium, 18, 161 Smyrnium, 18, 115 Solanum, 21, 132 Solidago, 23, 143 Sonchus, 25, 155 Sorbus, see Pirus Sparganium, 5, 34, 158 Spartina, 6, 158 Specularia, 23 Spergula, 11, 72 Spergularia, 11, 72 Spiræa, 14, 88 Spiranthes, 9, 61 Stachys, 21, 129 Statice, 20, 121, 161 Stellaria, 11, 70, 159 Stratiotes, 5 Sturmia, see Liparis Suæda, 11, 69, 159 Subularia, 13 Succisa, 23, 142 Symphytum, 20, 124

# Т

Tamarix, 17, 110 Tamus, 8, 59

Tanacetum, see Chrysanthemum Taraxacum, 25, 154 Taxus, 4 Teesdalia, 13, 79 Teucrium, 21, 127, 161, 182 Thalictrum, 13 Thesium, 10, 64 Thlaspi, 13, 80 Thrincia. see Leontodon Thymus, 21, 130 Tilia, 16, 107 Tillien, see Crassula Tofieldia, 7 Tolypella, 3 Tordylium, 19 Torilis, 18, 115 Tormentilla, see Potentilla Tragopogon, 25, 154, 162, 185 Trichomanes, 3 Trichonema, see Romulea Trientalis, 19 Trifolium, 15, 96, 160 Triglochin, 5, 35 Trigonella, 15, 94 Trinia, 18 Triodia, 6, 41 Trisetum, 6, 40 Triticum, see Agropyrum Trixago, see Parentucellia Trollius, 12 Tulipa, 8 Turritis, 14 Tussilago, 24, 148 Typha, 5, 34

# U

Ulex, 15, 94, 160 Ulmus, 10, 63 *Umbilicus, see* Cotyledon Urtica, 10, 64 Utricularia, 22, 161, 183

#### V

Vaccinium, 19 Valeriana, 23, 162 Valerianella, 23, 141, 162 Verbascum, 22, 132, 161 Verbena, 21, 127 Veronica, 22, 134 Viburnum, 23, 162 Vicia, 16, 100 Villarsia, see Limnanthemum Vinca, 20, 123 Viola, 17, 110, 160 Viscaria, 12 Viscum, 10 Volvulus, see Calystegia Vulpia, see Festuca

# W

Wahlenbergia, 23, 162 Weingærtneria, see Corynephorus Wolffia, 7 Woodsia, 4 X Xanthium, 24, 157

Z Zannichellia, 5, 35 Zostera, 5, 34

# ERRATA.

On page 4, line 9, for PILULIFERA read PILULARIA.

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# **Missing Page**