## A SUPPLEMENT

TO THE

# FLORA OF SOMERSET

BY

EDWARD SHEARBURN MARSHALL, M.A., F.L.S.

RECTOR OF WEST MONKTON.



## Taunton:

PUBLISHED BY THE

SOMERSETSHIRE ARCHÆOLOGICAL AND NATURAL HISTORY SOCIETY.

1914



## PREFACE.

In these pages I have tried to record the various additions or corrections since the publication of Mr. Murray's book; which, though dated 1896, was not (I believe) issued until early in the following year. There is a certain fitness in my continuing his work; for we were intimate friends from the autumn of 1882 until his death, and I had a small share in his Somerset explorations: he was also my first real helper in the study of critical plants. I have generally followed the London Catalogue names and standard of species, which is somewhat more liberal than that of Fl. Som.; Mr. Murray was accustomed to deal with larger areas, and his point of view was synthetical, rather than analytical.

Researches have been carried on for many years in the north-west; the results are embodied in Mr. J. W. White's Flora of Bristol, in my opinion quite the best and most thorough book of its kind, which appeared in 1912. He has most generously allowed me to make full use of it; and—as the reader cannot fail to see—it has been my mainstay. Our friend Dr. C. E. Moss has written an important work on the plant-associations of the county; and I wish to thank my numerous correspondents for their cordial help. The time has not yet come for a new edition of the Somerset Flora; several districts still need much closer investigation, and my own scanty leisure is so much occupied by other matters that I have been un-

able to devote a great deal of it to local excursions. Any further information will be welcome.

It should be added that, being personally unacquainted with the boundaries of districts 9 and 10, I have not always been able to decide with certainty in which of them a given locality should be placed. The map in Fl. Som. is on too small a scale, and the excellent one in Mr. White's book does not mark our divisions; so that some errors are probable, though care has been taken to avoid them. For records without a name I am responsible (or Mr. White, in quotations from Fl. Bristol).

Mr. W. D. Miller has very kindly undertaken the troublesome task of preparing the Index.

EDWARD S. MARSHALL.

West Monkton Rectory, Taunton, March, 1914.

#### ERRATA.

p. 38, after MONTIA insert M. FONTANA, L.

p. 70, for Eupatorium read Eupatoria.

p. 84, after BRYONIA insert B. DIOICA, L.

p. 106, after SERRATULA insert S. TINCTORIA, L.

#### A

## SUPPLEMENT TO THE FLORA OF SOMERSET.

#### RANUNCULACEAE.

## THALICTRUM, L.

T. FLAVUM. L.

3. Between North Newton and Athelney.

Godney Moor, R. Troup, sp. Wedmore to the peat moors, Fl. Bristol.

9. Ditch-banks in the marshes here and there from Yatton across to Kewstoke; Claverham; Max Bog, Winscombe, in plenty, Fl. Bristol.

10. Portbury (D. Williams); in several spots between Keyn-

sham and Bristol, Fl. Bristol.

## ADONIS, L.

A. ANNUA, L (autumnalis, L.).

9. Portishead Station-yard, 1907 (Miss Roper) and 1909.

Fl. Bristol.

10. Several plants on cultivated land above Arno's Vale, 1907 (Miss Edmonds); West Hill, Wraxall, 1909 (J. W. Eves and Miss Agnes Fry), Fl. Bristol.

## MYOSURUS, L.

M. MINIMUS, L.

3. Near Taunton; only once seen, W. Watson.

10. Large cornfield on alluvial clay, Portbury (Misses Hill and Peacock), 1908 to 1911, Fl. Bristol.

## RANUNCULUS, L.

R. CIRCINATUS, Sibth.

8. Wedmore, Fl. Bristol.

9. Nailsea; Tickenham; in the Cheddar Water at Hythe (Dr. C. E. Moss), Fl. Bristol.

R. TRICHOPHYLLUS, Chaix.

8. Bruton, W. Watson. Between South Brent and Burnham, Fl. Bristol.

9. Kewstoke (Mrs. Gregory); between Brean Down and Burnham; Cheddar Valley near Draycott, and towards Wells; ditches along the Channel shore between the Avon and Portishead, Fl. Bristol.

10. Brook, Long Ashton; ponds between Knowle and Whit-

church, Fl. Bristol.

R. DROUETH, F. Schultz.

2. Minehead. Stolford.

3. Bridgwater, Herb. Clark (H. S. Thompson). Plentiful on West Sedgmoor and on Northmoor.

Othery. Pitney.
 Bruton, W. Watson. Shapwick Moor. Highbridge.

9. Marsh ditches near Weston-in-Gordano; ditch on Draycott Moor; Nailsea Moor (D. Fry), Fl. Bristol. Near Worle Station. Ditches, south of Brean Down. Between Bleadon and Uphill.

10. Portbury (C. Bucknall), Fl. Bristol.

Var. Godronii (Gren.).

9. Drain in the moor between Yatton and Kenn, Fl. Bristol. The stations given on my own authority are, I think, correct; but the line between this and the previous species is not always easy to draw.

R. HETEROPHYLLUS, Weber.

2. Ditches near the Decoy, Porlock Weir.

3. Taunton, W. Watson. West Monkton. Northmoor, near Maunsel.

- Langport, W. Watson. Dunball.
   Bruton, W. Watson. Near Glastonbury (D. Fry), Fl. Bristol.
- 9. Ditches on Kenn Moor, and on other moors about Nailsea, Claverham, and Yatton; pond on Dial Hill, Clevedon (Miss Livett), Fl. Bristol.

Var. triphyllus (Hiern).

9. Marsh ditch between Clapton and Portishead, Fl. Bristol.

Var. submersus (Hiern).

9. Between Portbury and the Channel towards Portishead; Kenn Moor, Fl. Bristol (confirmed by H. and J. Groves).

I understand from Professor Hugo Glück, of Heidelberg, that what we call R. heterophyllus is named R. radians, Revel, by most German botanists.

#### R. PELTATUS, Schrank.

8. Edington Burtle (Herb. Clark, 1845), Fl. Bristol.

9. In three pools on the high ground (Potter's Hill, 600-650ft.) between Barrow Hill and Brockley Combe; pond on Mendip near Priddy Nine Barrows, at 1,000ft., Fl. Bristol.

Var. floribundus (Bab.).

8. South Brent, Fl. Bristol.

Flax Bourton; Nailsea Moor; Loxton; Clevedon (D. Fry), Fl. Bristol.

10. Between Pill and Portbury; Emborrow (Miss Livett),

Fl. Bristol.

Var. penicillatus (Hiern), including R. pseudo-fluitans, Hiern.

1. I think that the River Barle plant, referred to var. elon-

gatus in Fl. Som., should be placed here.

9. The Cheddar mill-pond form was in good flower and fruit on Sept. 19th, 1913; even in still, shallow water the leaves were flaccid and collapsing, and I could see little divergence from the ordinary penicillatus of swift streams.

#### R. BAUDOTH, Godr.

4. A small form is plentiful in Chard Reservoir.

 Uphill. Blean. Rhines near Weston-super-Mare (Mrs. Gregory); ditches between Portbury and the Channel shore, and along the sea-bank towards Portishead, Fl. Bristol.

Var. confusus (Godr.).

8. Near South Brent (D. Fry), Fl. Bristol.

 Weston-super-Mare (Babington, 1855; Mrs. Gregory, 1890), Fl. Bristol.

R. LENORMANDI, F. Schultz.

 Near Exford, W. Watson. Between East Anstey and Brushford.

2. Dunkery, W. Watson. Crowcombe Heathfield.

3. Near Taunton and Crowcombe, W. Watson. Clean Moor, between Wiveliscombe and Bathealton.

4. Curland. Staple Common.

R. HEDERACEUS, L.

"Not noticed on any of the calcareous soils of the county." Dr. C. E. Moss. My own experience is the same.

## R. SCELERATUS, L.

2. Minchead.

 West Monkton. Cheddon Fitzpaine. Kingston. Wiveliscombe. Stoke St. Mary. West Sedgemoor. Durston, W. Watson.

5. Othery. Chedzoy.

8. Common about Highbridge.

9. Uphill.

 About the Malago-stream near Lock's Mills, and in Bedminster Meads; here and there along the course of the Ayon between Hanham and Twerton, Fl. Bristol.

"Not noticed on any of the calcareous soils of the county."

Dr. C. E. Moss.

R. FLAMMULA, L.

I have seen this in districts 5 and 6, for which notes were lacking.

'Var. pseudo-reptans, Syme.'

10. Well marked in a swamp by the Chew a little way above Pensford (D. Fry), Fl. Bristol. I doubt whether we have Syme's plant (var. radicans, Nolte) in southern England; he describes the flowers as being nearly solitary, but what I have seen, so called, from Kent, etc., only differed from the type in being prostrate and rooting, and hardly deserved a special name.

R. LINGUA, L.

8. Witham, W. Watson.

 Churchill (Herb. Lawrence, 1852); still there in 1910, Fl. Bristol.

R. AURICOMUS, L.

3. West Monkton. Hatch Beauchamp. Stoke St. Mary. Corfe. Quite local, I believe, in the south-west.

8, 9, 10. More common in N. Somerset than on the Gloucester side of the district, Fl. Bristol. Neither Dr. Moss nor Mr. Watson mentions it as occurring near Bruton.

R. ACRIS, L.

An excellent account of the forms which grow around Bristol, based on his own and Mr. Cedric Bucknall's observations, is given by Mr. White in Fl. Bristol, pp. 121-5. I have not paid special attention to those of the southern districts; but R. Boraeanus, Jord. (including R. tomophyllus, Jord., which is very near it) appears to be by far the most general. The N. Somerset stations given by Mr. White are appended.

Var. Friesianus (Jord.), or vulgatus (Jord.).

Peat moor, Shapwick.
 Clapton. Rodney Stoke.

Markham Bottom. Keynsham, Saltford meadows (D. Fry).

Var. Boraeanus (Jord.).

9. Roadsides near Congresbury and Churchill. Clapton Moor. Cheddar Gorge. Roadside waste near Charlton

Lodge, and about Tickenham Hill.

 Beggars' Bush Lane. Lane to the Ferry, and the Avonside meadows at St. Anne's Brislington. Saltford (D. Fry). Hedgebanks, etc., between Priston and Combe Hay.

Var. tomophyllus (Jord.).

8. Peat moor, Shapwick.

- Near Charlton Lodge and thence to Tickenham Hill by the roadside, Meadows and salt-marsh between Portbury and Portishead. Naish Hill. Clapton-in-Gordano. Winscombe, Wavering Down. Churchill Batch. Cross. Axbridge, Cheddar Gorge. The Mineries on Mendip.
- 10. Keynsham. Beggars' Bush Lane.

Var. pumilus, Rouy & Foucaud.

8. The Mineries and Shipham on Mendip, locally plentiful. "In long, moist herbage this passes into tomophyllus."

Var. Steveni (Andrz.).

9. Rodney Stoke. Uphill! Sand-hills near Berrow. Weston-super-Mare (Mrs. Gregory).

10. Keynsham.

Var. rectus (Boreau).

8. Peat moors south of Edington and Shapwick Stations.

Clevedon (Miss Livett). Clapton. Roadsides, Congresbury. Churchill Batch. Axbridge. Laneside and meadows at Cross. Winscombe. Max and Compton Bishop. Rodney Stoke. Uphill.

 Avonside meadows at St. Anne's, Brislington. Beggars' Bush Lane. Markham Bottom. Keynsham Hams.

Meadows at Saltford.

R. SARDOUS, Crantz (hirsutus, Curt.).

2. Moist meadows near the coast, Porlock Weir and Stolford.

Alcombe marshes, H. W. Pugsley.

9. Waste ground near the bank of Portishead Pill; [also formerly behind Portishead Esplanade], Fl. Bristol.

- 10. Embankment of the new road across Ashton Fields, Fl. Bristol.
- R. PARVIFLORUS, L.

2. Minehead. Williton, towards St. Audries.

In profusion on Stoke St. Mary Hill. A garden weed at West Monkton Rectory. Pitminster. Corfe.

5. Pitney. Aller. High Ham. Dunball.

8. Bruton, W. Walson.

9. Walton-in-Gordano (D. Fry); Sand Bay, Kewstoke; near Hale Well, Winscombe (Mrs. Gregory), Fl. Bristol.
This species is especially partial to bare banks and hillsides on

the Lias limestone.

R. ARVENSIS, L.

- 5. Near Piper's Inn, Herb. Clark. High Ham, W. Watson. Compton Dundon.
- R. FICARIA, L. (Ficaria verna, Huds.), var. incumbens, F. Schultz. 9. Lane leading from the Bourton Road to Backwell; Bar-

row Gurney; Ubley, Fl. Bristol.

10. Coppices in Ashton Park; Norton Malreward; Whitchurch; Yanley Lane; Saltford (D. Fry), Fl. Bristol.

## CALTHA, L.

C. Palustris, L., var. Guerangerii (Boreau).

8. Near Wells (Miss Livett), Fl. Bristol. 10. Botlands, Chew Magna, Fl. Bristol.

## HELLEBORUS, L.

H. VIRIDIS, L. (the British plant is H. occidentalis, Reuter).

2. Seven Wells Coombe, 1840, Herb. Clark (H. S. Thompson).

3. West Hatch, W. Watson.

8. Shepton Montague, W. Watson.

9. Bourton-a few plants in a large pasture below Belmont Hill towards Bourton Batch; orchard at Sandford, Fl.

10. Steep overgrown bank of a stream on a wood-border above Portbury, fine and plentiful [also, formerly, in the angle of a lane leading from Portbury to Upper Failand, but now eradicated]; in the north-western portion of Ashton Court Park, abundant (A. E. G. Way); open field behind Publow Leigh near Pensford (Miss Roper), Fl. Bristol.

H. FOETIDUS, L.

2. Luxborough Valley, above Langridge Mill; two or three plants, not far from a cottage, H. Slater.

3. Orchard Portman, W. B. Butler. Hatch Beauchamp;

one fine plant, 1910.

- Rocky bank, towards the bottom of Tickenham Hill; Wraxall Woods (J. W. Eves); Chelvey Batch (Miss Roper); hillside near Rowberrow (J. H. Cundall, 1851); to the south-west of the camp on Dolebury (F. A. Knight); about Hutton, and near the old church at Uphill, not truly wild (St. Brody, Fl. Weston, 1856), Fl. Bristol.
- Ham Green (Herb. Powell); formerly abundant, but now scarce, Fl. Bristol.

## AQUILEGIA, L.

A. VULGARIS, L.

- 3. In fair quantity and native on wet moors between Wiveliscombe and Milverton, both among bushes and in the open. North Newton and Stoke St. Mary, only as garden strays. Buncombe, near Kingston; an escape?, W. Watson.
- 5. Aller Wood, W. D. Miller, sp. 8. Milton Clevedon, W. Watson.
- Freeman's Farm, Barrow Common; border of wood above Portbury, and along the limestone ridge by Clapton and Cadbury to Clevedon; about Wraxall (F. Samson); Backwell Hill, abundant; woods at Portishead (Misses Cundall); woods at Congresbury; Sandford Hill, with white flowers (H. S. Thompson); Hutton Combe (Mrs. Gregory); Burrington Combe; Cheddar Gorge, Fl. Bristol.

10. Houndstreet (D. Fry); wood near Fortnight (Misses

Cundall), Fl. Bristol.

## DELPHINIUM, L.

- [D. AJACIS, L. 8. Burnham; 9. Brean Down (Mrs. Gregory), Fl. Bristol—casuals].
- [D. CONSOLIDA, L. 9. Weston-super-Mare (Herb. Lawrence, 1850), Fl. Bristol].

## ACONITUM, L.

A. NAPELLUS, L.

1. By the Exe, above Winsford, 1911, W. D. Miller.

- The Croford station in Fl. Som. is covered by the one mentioned previously, which extends for a considerable distance below Milverton; Mr. H. S. Thompson mentions a specimen in Herb. Clark, collected thereabouts in 1825.
- 8. Frequent by the River Alham, from Westcombe (Batcombe parish) downwards; this includes Murray's locality at Spargrove. "In great abundance in Park Wood, Redlynch. In June, 1902, there were thousands of flowering spikes. The wood is in a watershed, 300-400 feet in altitude; and a stream takes its rise here in Redlynch Pond . . . Near Cole and Bruton, as a streamside plant, with Senecio sarracenicus." C. E. Moss in litt.

10. Edford Wood, associated with the Snowdrop and Daffodil, 1883! This appears to be the station mentioned in Fl. Bristol, p. 130:—" on both banks of a stream skirting the southern edge of Downside Common, near Edford."

I am satisfied that this is a true native in Somerset, and in several other western counties. Dr. O. Stapf, of Kew, who has made a special study of the genus, told me (May, 1913) that he had been unable to meet with exactly our English plant, on the Continent.

## BERBERIDACEAE.

## BERBERIS, L.

B. VULGARIS, L.

This occurs in a wood above Bossington, as well as in neighbouring hedges.

3. Halse, H. S. Thompson; "seems quite naturalised,"

W. Watson.

- 9. One bush, near the high road on the Bristol side of Bourton Batch; hedgerow, Clapton-in-Gordano; two bushes in a hedge close to Banwell village; for a yard or two by the side of a stream below Rowberrow (D. Fry), Fl. Bristol.
- 10. A fine clump in Markham Bottom, above Haberfield Bridge (L. W. Rogers); one tree, east of Portbury, associated with Horse-chestnut and Laburnum; St. Anne's Wood, Brislington (Herb. Cundall, 1849); hedges on the Hallatrow Court Estate (R. V. Sherring); Nunney (Rev. S. Laing); for some yards in a pasture hedge by the way going down into Combe Hay from the old canal, Fl. Bristol.

Mr. White classes this as a native or denizen; the latter is I believe, its lowest probable status. As he points out, it has been largely rooted out by agriculturists; and hedges used to be made up with the most suitable wild plants that could be had. My own impression is rather in favour of its being aboriginal, in the neighbourhood of Minehead and Porlock.

[B. ARISTATA, DC., a native of Nepaul, etc., grows for about thirty yards in the hedge of a narrow lane, between Bossington and Hurlstone Point, dis. 2; it is not likely to have been planted, but was probably bird-sown, many years ago, from the Dyke-Acland gardens at Holnicote. I erroneously thought it to be a hybrid between B. Aquifolium and B. vulgaris; but it was identified as above at Kew for Mr. A. Bruce Jackson].

#### NYMPHAEACEAE.

## NUPHAR, Sm.

N. LUTEUM, Sm. (Nymphaea lutea, L.).
3. Near North Newton, W. Watson

3. Near North Newton, W. Watson.
10. In the river Chew at Compton Dando and Chewton Keyn-

sham; Ham Green, Fl. Bristol.

Dr. C. E. Moss tells me that our former generic names for the Water-lilies must be restored, in accordance with the Rules of the Vienna Botanical Congress.

## NYMPHAEA, L.

N. ALBA, L.

In a large pool near the railway below Brent Knoll Station!
 and one or two similar pools nearer Highbridge, Fl.

Bristol.

10. Pond by Ham Green; in the river Chew, just above the old mill at Compton Dando, with small flowers, perhaps the var. minor DC. (D. Fry); very abundant for half a mile in the canal between Camerton and Radford, Fl. Bristol.

In S. Somerset I have only seen this as an obvious introduction.

#### PAPAVERACEAE.

## PAPAVER, L.

IP. SOMNIFERUM, L.

Waste ground at Weston-super-Marc (G. S. Gibson, 1843);
 Brean Down (St. Brody); potato-field near Clevedon, 1905-9, Fl. Bristol].

P. Rhoeas, L., var. strigosum (Boenn.).

 Close to the shore at Porlock Weir, C. E. Salmon. Field at Alcombe, with the type, H. W. Pugsley.

P. LECOQII, Lamotte.

9. Among corn near Wrington; roadside, Uphill, Fl. Bristol.

 Keynsham (D. Fry); in a clover-field on Lansdown; abundant on refuse at South Liberty Colliery, 1906, Fl. Bristol.

P. ARGEMONE, L.

9. Wraxall (Miss Peck); old brickworks by the railway below Nailsea Station (Miss Livett); near the old Weston Junction, permanent (Mrs. Gregory), Fl. Bristol.

10. Rush Hill, near Twerton (Herb. Flower, 1848), Fl. Bristol.

P. HYBRIDUM, L.

 Kilve, 1849, Herb. Clark. Shurton Bars, 1897, Rev. C. W. Whistler (both stations communicated by Mr. H. S. Thompson).

9. Casual in the Station-yard at Portishead (Miss Livett),

Fl. Bristol.

## MECONOPSIS, Vig.

M. CAMBRICA, Vig.

 General in the Barle Valley, from Hawkridge downwards, W. Watson. In many places by the Exe, about Winsford and Exton.

2. Plentiful in combes running down to the sea, near Culbone,

W. B. Butler (extends the former record).

3. Triscombe, W. Watson.

## GLAUCIUM, Hill.

G. FLAVUM, Crantz (luteum, Scop.).

 Porlock Weir!; Dunster!, C. E. Salmon. Blue Anchor. Below Williton. St. Audries.

[8. Near the Baths, Shepton Mallet, W. Watson; probably imported with coast-shingle].

#### FUMARIACEAE.

## CORYDALIS, Vent.

C. CLAVICULATA, DC.
2. Wych Wood, between Dunster and Timberscombe, in plenty, H. Slater. Porlock Weir.

3. Gotton Copse, West Monkton, W. D. Miller; also in the wood at Burlinch, in the same parish, most years!

## FUMARIA, L.

F. CAPREOLATA, L. (pallidiflora, Jord.).

2. West Luccombe, W. Watson. Minehead.

8. East Pennard, W. Watson.

9. Roadside bank, just north of Axbridge; Ellborough, between Hutton and Banwell (Mrs. Gregory), Fl. Bristol.

The Minehead, Dunster, and Cheddar plants are referred by Mr. H. W. Pugsley (Journ. Bot., 1912, Supplement) to his var. Babingtonii, the usual British plant.

F. PURPUREA, Pugsley.

Colonist or native; very rare. June to August

9. Hillside above Christon (Mrs. Gregory), Fl. Bristol; vouched for by Mr. Pugsley.

I have failed to find this endemic species in the south-west.

F. Borael, Jord. This is the 'F. confusa' of Fl. Som., at least usually. Mr. Pugsley considers it to be a subspecies of F. muralis, Sonder, which is decidedly scarce in Britain.

2. Allerton; Alcombe; Dunster!; Wootton Courtney,

H. W. Pugsley. Porlock. Williton.

3. Enmore, Herb. Clark, 1835 (H. S. Thompson). Staplegrove, W. Watson. Cothelstone. Kingston. Cheddon Fitzpaine. West Monkton. North Newton.
9. Wrington (Mrs. Gregory); Clapton-in-Gordano, Fl.

Bristol.

Forma elongata, Pugsley. 2. Minehead, H. W. Pugsley.

Var. ambigua, Pugsley.

2. Minehead, H. W. Pugsley.

Var. britannica, Pugsley (serotina, Pugsley, prius, non Clavaud).

3. Frequent on hedgebanks about West Monkton and Kingston; Mr. Pugsley has identified some of my gatherings.

Although it is often found in cultivated ground, I consider that this species is quite likely native in some of its stations.

F. Bastardi, Boreau (confusa, Jord.).

Native or colonist. Banks and hedgerows, especially near the sea. June to August. Very local, and perhaps only in the south-west. This is the 'F. muralis' of Fl. Som.

2. Dunster! H. W. Pugsley. Common about Minchead.

Bossington.

8. The Wells and Shapwick stations probably belong to the previous species; Mr. Pugsley mentions no N. Somerset

specimen as having been seen by him].

I have not observed this in the county on arable land; in several spots it grows remote from fields and gardens: this is likewise the case with F. capreolata.

#### CRUCIFERAE.

## NASTURTIUM, Br.

N. OFFICINALE, Br. The luxuriant state which has been called var. siifolium occurs at 2. Williton and 3. West Monkton.

(Dr. Moss lately wrote to me that Nasturtium is a nomen conservandum, and should be retained, instead of the older Radicula, Hill).

N. SYLVESTRE, Br.

3. North Newton, W. Watson.

8. Pondside, Highbridge (Miss Livett); Wedmore (Miss Ruddock), and frequent in marsh ditches south of Wedmore, Fl. Bristol.

9. Nailsea Moor (D. Fry); Bank of the Cheddar Water at Hythe (Dr. C. E. Moss); moor ditch by Nyland, Cheddar Valley (C. Wall), Fl. Bristol. 10. Damp spot at side of the Wells Road, half a mile beyond

Whitchurch (Miss Livett), Fl. Bristol.

N. PALUSTRE, DC.

3. North Curry, W. Watson. Bridgwater, H. S. Thompson. Northmoor, near Maunsel.

4. Abundant at Chard Reservoir. 5. Stawell, H. Slater. Chedzov.

8. About Ashcott Station. Marshes between Berrow and Brent Knoll, and between Wedmore and the river Brue; Polsham (Miss Livett), Fl. Bristol.

9. Kenn Moor (S. T. Dunn), Fl. Bristol. Drove near Ticken-

ham, Miss Sandford, sp.

10. Bank of the Chew near Compton Dando; near Ham Green (Mrs. Sandwith); by the Avon at Saltford (D. Fry), Fl. Bristol.

N. AMPHIBIUM, Br. (Armoracia amphibia, Peterm.).

3. North Curry, W. Watson. Creech St. Michael.

8. Westhay, near Meare.

- Roadside ditch between Sandford and Churchill, Fl. Bristol.
- St. Anne's Wood (Thwaites in Herb. Watson); Bathampton and Bathford; Warleigh Ferry, in plenty; canalsides, Claverton, Fl. Bristol.

## BARBAREA, Br.

B. VULGARIS, Aiton, var. transiens, Druce.

10. A large patch on a field border by the Wellsway, three miles out of Bath (J. W. White, 1910), Fl. Bristol; "flowers slightly darker yellow than in the type, upper leaves with long linear lobes. Mr. Druce confirms the name."

B. INTERMEDIA, Boreau.

Colonist or casual. Roadsides, fields, etc.; rare and very local, but sometimes persistent. May to July.

2. Dunster, 1906; two or three plants.

 Field at Coombe, West Monkton, 1905. Roadside banks above Cherry Grove, West Monkton, on the way to Broomfield, 1906 to 1913; in fair quantity, some years.

- 9. Portishead Station-yard, one plant, 1904; over a hundred, 1909, in a field that had been cropped with lucerne, on Tickenham Hill; one, by the gate leading into an adjoining pasture, and about a dozen on the roadside, lower down; several in the corner of a pasture on Nailsea Moor, 1900; one at Clevedon railway station (Miss Livett, 1906), Fl. Bristol. Cultivated field on the hill north of Weston-in-Gordano; several dozen plants, 1913, Miss Livett.
- Railway embankments, north of Pensford Station (C. Bucknall, 1898); field border north of Fortnight Farm,

near Bath, one plant, 1909, Fl. Bristol.

B. VERNA, Asherson (praecox, Br.).

9. Bristol Road, Weston-super-Mare, 1888, and on Worle Hill, 1898 (Mrs. Gregory), Fl. Bristol.

10. Roadside, Leigh Woods (A. E. G. Way, 1910); embankment of Ashton Avenue, 1910; Odd Down, Bath, 1891. Fl. Bristol.

Formerly much used as a salad; it is still grown in a friend's kitchen garden at West Monkton.

## ARABIS, L.

A. HIRSUTA, Scop.

Hadspen, Shepton Mallet, and Masbury, W. Watson. Dry banks near Ashcott Station, H. Slater!

9. Bleadon.

### CARDAMINE, L.

C. PRATENSIS, L. The double-flowered form has been observed in the following additional stations; it seems to occur chiefly in nitrogenous soils (enriched by manure, etc.)

1. Meadow, Brushford, W. D. Miller.

- 2. Near Langridge Mill, between Luxborough and Roadwater, H. Slater.
- 3. Boroughbridge, W. D. Miller, sp. Banks of a pond at West Monkton Rectory; seen annually since 1905.

9. Kewstcke Bay (Mrs. Gregory); two localities near Compton Martin (Dr. Gough), Fl. Bristol.

Bishopsworth (O. Giles); between Great Elm and Mells; near Bath (A. E. Burr), Fl. Bristol.

C. IMPATIENS, L.

9. In a rocky combe N. of Cheddar Gorge, 1898; foot of Callow Rocks near Sidcot (Dr. C. E. Moss, 1907). Fl. Bristol.

10. Leigh Woods, valley below Nightingale Valley, (L. W. Rogers), and in another ravine that goes down from near the Roman encampment to the railway (J. W. White); Claverton Down and Smallcombe, Bath, frequent, and sporadic on waste ground near Twerton, 1903 (Miss Martin), Fl. Bristol.

## DRABA, L.

D. MURALIS, L.

8. Near Shepton Mallet, H. S. Thompson and W. Watson. Railway near Pink Wood, between Bruton and Witham, C. E. Moss.

10. Walls at Rush Hill and Farrington Gurney; Temple Cloud (L. W. Rogers); between Mells and Great Elm; formerly on walls at Old Down, Bath (T. B. Flower in Fl. Bathon. Suppl.); East Harptree Combe (Rutter, Hist., 1829), Fl. Bristol.

#### EROPHILA, DC.

E. STENOCARPA, Jord. (perhaps a variety or subspecies of E. verna, E. Meyer).

3. Walls at Wick, west of Langport.

5. Pitney.

E. PRAECOX, DC. (brachycarpa, Jord.).

3. Common on walls near Taunton; e.g. West Monkton, Bathpool, Corfe, North Newton, North Petherton, etc.

5. Charlton Mackrell.

9. Bleadon. Churchill. Axbridge. Cadbury Camp; Berrow sand-hills!; Worle Hill; Uphill!; Woodspring; Banwell; Cheddar!; Priddy!; Fl. Bristol.

10. Chewton Mendip; Ston Easton, Fl. Bristol.

E. VIRESCENS, Jord.

Native. Sandy and open grassy ground (never on walls, in my experience); apparently uncommon, but little known, and apt to be overlooked. March to May.

2. Minehead Warren:

8. Creech Hill, Bruton.

9. Near Berrow Church.

This, which seems to be identical with an authentic but immature specimen in *Herb. Brit. Mus.*, is a very distinct species. The leaves are fleshy, bright green, glabrescent, rather broad in larger specimens, forming a flattened rosette; the pods of our British plant are mostly jujube-shaped, and do not quite agree with Jordan's figure, being narrower and less ovoid.

## COCHLEARIA, L.

C. OFFICINALIS, L.

Walls at Shepton Mallet, H. S. Thompson.
 Beach at Kewstoke Bay; Brean Down (W. B. Waterfall), Fl. Bristol. Steep Holm, G. C. Druce, sp.

C. DANICA, L.

2. I saw this in good flower on Hurlstone Point, Sept. 23rd, 1907; doubtless a second crop, as I have always found it to be annual, whereas C. officinalis is normally biennial.

 Steep Holm, G. C. Druce. Rocks at the extremity of Brean Down; in two places, Kewstoke Bay (Mrs. Gregory), Fl. Bristol.

C. ANGLICA, L.

9. Under Brean Down (Herb. Clark, 1836); ditchbanks in

Portbury marshes, Fl. Bristol.

From Mr. White's remarks it is clear that the Bristol plant agrees with the Linnean type (Hort's 'var. gemina'); the English Botany figure represents var. stenocarpa, Meyer (Hortii, Syme).

## HESPERIS, L.

H. MATRONALIS, L.

 Apparently quite firmly established near Withypool, W. Watson. [One plant on the railway between East

Anstey and Brushford].

9. Portishead (Miss Peck, 1903); banks near the Grove, Weston-super-Mare, and at Hutton, rare (St. Brody, Fl. Weston, 1856); an outcast on the rocks north of Weston (Mrs. Gregory, 1888); bank of a rhine near Uphill (Misses Cundall, 1895), Fl. Bristol.

 Two or three plants by the Chew below Pensford (L. W. Rogers, 1889); [garden weed at Failand], Fl. Bristol.

## SISYMBRIUM, L.

S. THALIANUM, Gay.

2. Stogumber.

 Frequent, north of Taunton, W. Watson. West Monkton. Cothelstone.

 North Cadbury, W. Watson. Garden weed, Stawell, H. Slater.

8. Bruton, W. Watson. Coast between Burnham and Blean, on the landward side of the sand-hills, Fl. Bristol.

9. Portbury; Portishead; Clevedon; Wrington valley;

Uphill (Miss Roper), Fl. Bristol.

10. A garden weed near the Suspension Bridge; Pill and Ham Green; about Keynsham and Pensford; plentiful on walls at Chew Magna; Hallatrow and Farrington Gurney (Miss Roper), Fl. Bristol.

S. OFFICINALE, Scop., var. leiocarpum, DC.

 Waste ground, St. Philip's, Bristol (Miss Roper, 1906), Fl. Bristol. Mr. White has sought for this slight variety elsewhere without success; nor have I observed it in S. Somerset. S. SOPHIA, L.

9. Sandy fields near Weston-super-Mare (St. Brody); frequent about Worle in 1889 (Mrs. Gregory), Fl. Bristol.

## ERYSIMUM, L.

E. CHEIRANTHOIDES, L.

8. Bruton; very rare, W. Watson. Plentiful in fields, etc., near Ashcott Station, 1913. Burtle Moor, and scattered on the peat along the railway between Edington and Shapwick Stations; roadside on Aller Moor near Mudgley, Fl. Bristol.

9. Farm barton, Wick St. Lawrence (D. Fry); Christon Hill (Mrs. Gregory); Banwell Hill (Herb. St. Brody,

1846), Fl. Bristol.

10. Field at Whitchurch (Herb. Cundall, 1850); between Whitchurch and Woollard (Miss Roper); garden weed at Failand House (Miss Agnes Fry); Bath (S. T. Dunn). Fl. Bristol.

"Possibly wild on the peat," Fl. Bristol. I think this quite likely; elsewhere it seems, as a rule, to be little better

than a casual.

## BRASSICA, L.

B. OLERACEA, L.

9. Brean Down (F. A. Knight), Fl. Bristol. No other observer has recorded it since Collins. Mr. H. S. Thompson (Journ. Bot., 1905, p. 234) writes:—"Clark's specimen of B. campestris has the robust habit of B. oleracea, but it is certainly not that species." Mr. Druce gathered what appears to be the same in flower on Steep Holm, May, 1909, but saw nothing of the Wild Cabbage.

B. RAPA, L., var. sylvestris, Watson.

10. "This may possibly be indigenous on the banks of the rivers Chew and Avon," Fl. Bristol. I think it truly wild by the latter stream, in Wiltshire, as well as on the Wye, Thames, Wey, and other rivers. Is it ever found in cultivation?

[Var. Briggsii, Watson.

9. Made ground at Portishead, Fl. Bristol].

B. NIGRA, Koch (Sinapis nigra, L.).

- Williton. Coast cliffs from St. Audries to Kilve.
   Bathpool. Stoke St. Mary. Hatch Beauchamp.

5. Chedzov.

8. Cole; rare, W. Walson. Canal banks near Ashcott Station.

9. Wild on cliffs, Brean Down, C. E. Salmon. Berrow.

"Too well distributed to need the mention of any localities,"
Fl. Bristol.

B. ARVENSIS, O. Kuntze (Sinapis arvensis, L.)

8, 10. "The form of this species with hispid pods, common in many parts of England and not separated by British botanists, is kept up as a variety by Continental writers under the names villosa Mér. and orientalis Murr. I have found this form . . . on the outskirts of Bath and on the southern peat moors," Fl. Bristol.

B. ALBA, Boiss. (Sinapis alba, L.)

 Waste ground, Clevedon (Miss Livett); roadside and sand-hills at Berrow; cultivated ground on Mendip near Shipham and Sidcot, Fl. Bristol.

 Brislington and Stockwood (Herb. Stephens); in many spots both by the roadside and on walls between Twerton

and Englishcombe (D. Fry), Fl. Bristol.

Evidently scarce in the southern districts; I have not met with it, nor had it reported.

## DIPLOTAXIS, DC.

D. TENUIFOLIA, DC.

 Walls of Taunton Castle Yard, Herb. Clark, 1829. This confirms the suggestion in Fl. Som. Planted.

8. Once found near Witham, W. Watson.

 Steep Holm, 1909, G. C. Druce. In plenty about the dock and railway at Portishead; on the embankment at Nailsea Station, and about an old brick-yard near by: also lately introduced in a Clevedon quarry and now abundant there, 1911 (Miss Livett), Fl. Bristol.

 Ashton Gate, on waste ground; on the railway towards Bedminster, and continues by Pylle Hill, Totterdown and Knowle to Temple Meads; by the Avon below Bath

(S. T. Dunn), Fl. Bristol.

D. MURALIS, DC.

 Abundant about Highbridge, Fl. Bristol. Burnham, H. S. Thompson.

9. Abundant about Uphill!, Fl. Bristol. Garden weed,

Cheddar, C. E. Moss. Rodney Stoke.

10. Abundant about Bristol, Fl. Bristol.

Var. Babingtonii, Syme. 3. Staplegrove, W. Watson.

8. Near the railway, Bruton, W. Watson.

I agree with Mr. Murray in reckoning this as a mere form. Mr. White remarks that the species has greatly extended its area in the West of England.

## CORONOPUS, Haller (Senebiera, Pers.).

## C. DIDYMUS, Pers.

2. Bossington.

- 3. Combwich. A troublesome garden weed at West Monkton.
- 8. Railway, near Edington Junction (Dr. C. E. Moss), Fl.

9. Railway, near Portishead Station; Uphili, Fl. Bristol.

Rownham, Ashton Gate, and Bedminster; Failand (D. Williams), Fl. Bristol.

## C. PROCUMBENS, Gilib. (S. Coronopus, Poir.).

2. Stolford.

3. Milverton, Combwich,

5. Compton Dundon. Chedzoy.

8. Near Bruton; very rare, W. Watson. Meare. Burnham.

Huntspill. Highbridge.

9. Winscombe (D. Fry); Wrington; Yatton (Miss Livett),
Fl. Bristol. Uphill. Worle.

10. About Rownham Ferry (Swete, Fl.); roadside, Saltford, and a weed in gardens, Corston (D. Fry), Fl. Bristol.

## LEPIDIUM, L.

## L. LATIFOLIUM, L.

[3. Mr. White, in a letter to Mr. Murray, denied all knowledge of the Station near Bridgwater given in Fl. Som.]

9. "D. Fry says :- Do not all the records refer to the same station, that at Berrow? " (note in Mr. Murray's copy of Fl. Som.). Mr. White's remarks (Fl. Bristol) point the same way.

## L. RUDERALE, L.

3. Casual in a farmyard at Badger Street.

- 8. Near the Brue by Highbridge (H. S. Thompson), Fl. Bristol.
- 9. Walton-by-Clevedon (Miss Livett); about Portishead Dock and Station; on the beach, Weston-super-Mare (Mrs. Gregory), Fl. Bristol.

10. Roadsides and waste ground at Ashton Gate; abundant in a salt-marsh by the river below Pill (Misses Cundall); on ballast at St. Anne's, Brislington (Miss Roper); waste ground by the Avon below Bath; Bathampton Station (Miss Peck), Fl. Bristol.

L. CAMPESTRE, Br.

3. Lane at Overton, West Monkton; scarce, but persistent. Copse, Badger Street.

9. Chelvey (Miss Livett), Fl. Bristol.

- 10. West Town; Odd Down (Bath) and Bathampton, Fl. Bristol.
- L. HETEROPHYLLUM, Benth., var. canescens, Gren. & Godr. (L. Smithii, Hooker).

1. Winsford. King's Brompton. Near East Anstey.

 Coast, Porlock, C. E. Salmon! Withycombe, H. Slater.
 Hatch Beauchamp, W. Watson. West Monkton.
 On the beach, Portishead (J. N. Duck, 1852); wall near Portishead Church (J. F. Hopkins, 1889); edge of low cliffs on the coast north of Clevedon, scattered here and there in fair quantity (Miss Livett), Fl. Bristol.

[10, Formerly in a field at Failand Farm; now lost (D. Wil-

liams), Fl. Bristol].

L. DRABA, L.

Alien; but now becoming naturalised in several places. June, July.

2. Two or three plants, on the coast between Minehead and

the Warren, 1905; not seen since.

3. Staplegrove, W. Watson.

8. Bruton; rare, W. Watson.

9. Station-yard, Portishead, 1900-9; thoroughly established by the side of a footpath under a wall on the Kenn road. not far from Clevedon Station (D. Fry); Walton-by-Clevedon and Tickenham (Miss Livett); by Congresbury and Cheddar railway stations, Fl. Bristol.

10. About some old ironworks at Ashton Gate; Failand (D. Williams); between Keynsham and Saltford; Sham Castle Lane, Bath; and abundant by railway banks between Bath and Twerton (A. E. Burr); Twerton

(S. T. Dunn), Fl. Bristol.

## THLASPI, L.

T. ARVENSE, L.

3. Kingston and Pitminster, W. Watson. West Monkton, occasionally.

5. Weston Zoyland.

 Bruton; rare, W. Watson. Garden weed at Wells (Miss Livett), Fl. Bristol.

9. Clevedon; Portishead Station-yard, Fl. Bristol.

 Lane at Keynsham, and between Saltford and Burnet (D. Fry); Newton Bridge; Twerton (S. T. Dunn), Fl. Bristol.

T. ALPESTRE, L.

9. Though this is described as very rare in Fl. Som., Mr. White states in Fl. Bristol that it is scattered more or less plentifully over several square miles, including Sandford Hill and Charterhouse (Miss Roper). He and Mr. Bucknall find that T. occitanicum, Jord. (to which the Somerset, Yorks, and Carnarvon plants were formerly referred) differs widely in having very glaucous leaves, more or less dentate, and a biennial root; and they think that the form of the Mendips had perhaps better be left under the aggregate T. alpestre.

#### HUTCHINSIA, Br.

H. PETRAEA, Br.

9. Hudson's Uphill record was probably correct; a good deal of the rock has been quarried away. Mr. John Lloyd's alleged station for Teesdalia may indirectly confirm the Cheddar notice by Collins. My friend Mr. W. A. Shoolbred has found this species on the same formation at Pen Moel! on the W. Gloster side of the Wye near Chepstow, over a space not exceeding one square yard: and it would take a long time to explore all the likely places about Cheddar. Nor is Sole's indication at Worle (Collinson's History) at all impossible; I have seen some cliffs not far off, with abundance of Cheiranthus growing on them, which look very promising.

10. On and under a garden wall (not intentionally introduced) at Millard's Hill, near Witham; first observed about 1910, and now (1913) spreading fast, G. B. Milne-Red-

head, sp.

## CAKILE, Miller.

C. MARITIMA, Scop.

 Steart Island, 1817, Herb. Clark. It still grows in plenty at Steart Point, but seems to be absent from the coast between Porlock Weir and Bossington.

Var. sinuatifolia, DC. (integrifolia, Koch).

9. Between Brean Down and Berrow, C. E. Salmon. Between Uphill and Weston-super-Mare. A slight variety.

## RAPHANUS, L.

R. RAPHANISTRUM, L.

3. West Monkton. Bathealton. It seems to be quite scarce in the south, though so frequent in the Bristol neighbourhood as to need no detailed enumeration.

R. MARITIMUS, Sm.

 There is a specimen in Herb. Clark, confirming Collins's Brean Down record. Single plants were seen near Portishead in 1887 and 1906; but it appears to be a dying-out species in the county.

#### RESEDACEAE.

## RESEDA, L.

R. LUTEA, L.

 Doubtfully native at Bruton; but it was observed for six years (1902-7) in the same place, W. Watson. Highbridge (Miss Peck), Fl. Bristol.

9. Behind warehouses at Portishead Dock, not wild (W. E.

Green), Fl. Bristol.

 In several places near Holwell (Rev. S. Laing); fallow fields between Twerton and Englishcombe; Combe Hay (Miss Livett); plentiful in cultivated fields on Landsdown; Odd Down, Bath; near Dunkerton, Fl. Bristol.

R. LUTEOLA, L.

2. Blue Anchor. Williton.

3. West Monkton.

5. Dunball.

9. Uphill.

## CISTACEAE.

## HELIANTHEMUM, Miller.

H. CHAMAECISTUS, Miller (vulgare, Gaertn.).

3. Plentiful at Thurlbear, W. B. Butler.

5. Aller. High Ham. Common about Somerton.

H. CHAMAECISTUS X POLIFOLIUM.

Mr. Thompson's pale-flowered Purn Hill plant is this hybrid,

which has flourished in my garden for several years, and produces plenty of seed, though no young plants have appeared. I believe that it crosses back freely with the parents, as every intermediate form can be found; but the direct hybrid is more plentiful. Both species occur on Brean Down, but apparently not together.

#### VIOLACEAE.

#### VIOLA, L.

After more than twenty-five years' study, Mrs. E. S. Gregory published in 1912 an exhaustive Monograph on British Violets, embracing the section *Nomimium*, but not including the section *Melanium* (Pansy-group). Owing to her long residence at Weston-super-Mare, the N. Somerset forms received special attention; where no other authority is given, the citations are from her book.

V. PALUSTRIS, L.

4. Staple Common, E.S.M.

6. Between Castle Neroche and Buckland St. Mary, E. S. M. The closely allied V. epipsila, Ledebour, lately discovered in Britain, grows in Devon, and should be searched for on Exmoor in districts 1 and 2.

V. ODORATA, L.

Var. praecox, Gregory. A small plant, with more acute sepals than the type, small, narrow, recurved upper petals, etc.; it blooms from October to March, and often almost the whole year round.

9. Weston Wood: one patch on ground recently added to

the garden of Fairleigh School.

Var. dumetorum (Jord.), Rouy & Foucaud.

"Very abundant on hedge-banks in the West of England."
No stations are given; but N. Somerset is doubtless included.

Var. subcarnea (Jord.), Parlatore. Petals flesh-coloured, reddish-purple, or lilac; lower petal emarginate; capsules obtusely angular, puberulent.

5. Between Somerton and Compton Dundon, E. S. M.

9. Rather frequent about Banwell, Christon, Winscombe and Weston-super-Mare (E. S. G.); woodland above Weston-in-Gordano (J. W. W.); Dial Hill, Clevedon (Miss Livett); Gratwicke Hall and Tickenham Hill (Miss Roper), Fl. Bristol.

10. Stanton Drew, and hedge-banks towards Pensford, abundant (D. Fry and J. W. W.), Fl. Bristol. Chewton Mendip (Mrs. Philpot, wife of the then Vicar, who told me in 1883 that a pink or reddish-flowered form of the Sweet Violet was common there).

Var. sulfurea (Cariot), Rouy & Foucaud.

9. In a shrubbery, formerly part of the Weston Woods, now included in the grounds of The Lodge, Weston-super-Mare. A slightly different form from the characteristic plant found by Mr. Bickham at Ross, Herefordshire; having hairy peduncles, bracts broadly ovate, ciliate, and petals sulphur-coloured (not apricot-coloured) for two-thirds of their length, yellowish white beyond. Spur dark purple.

Forma imberbis, Gregory (V. imberbis, Leighton). "Mr. Leighton's plant was white, but blue flowered forms are often found . . . Lateral petals lacking the usual tuft of hairs . . . Mr. Hunnybun and I have noticed a more rounded appearance of the flower in this form." Probably general in the limestone districts.

9. Near Weston-super-Mare. The prevalent form about Clevedon (Miss Livett), Fl. Bristol.

 "So common with us that I have found fifty such plants in succession in various localities," Fl. Bristol.

V. HIRTA, L.

2. Williton, E.S.M.

 West Stoke; Stoke St. Mary; Corfe—all on the Lias, E. S. M.

4. Staple Fitzpaine, E.S.M.

5. Pitney, etc., E. S. M.

 Very local on the peat moor south of the railway, between Shapwick and Ashcott Stations, H. Slater! Rare about Bruton, W. Watson. Wedmore and Wells, Fl. Bristol.

Brean Down; Bleadon; Churchill, etc., E. S. M. Blackwell Hill; Brockley Combe, and the Cleeve Woods; Banwell Hill; Portishead Down and Weston Big Wood; woods above Congresbury; Winscombe; Worlebury Wood and Worle Hill, etc., Fl. Bristol.

 Bourton Combe; Leigh Woods; Stockwood; Norton Malreward; Bishop Sutton; Great Elm; Frome, Fl.

Bristol.

Var. oenochroa, Gillot & Ozan. "A small undeveloped-looking plant, having small mauve or lilac coloured flowers with narrow petals and a white eye."

9. Banwell, E. S. G.

Var. pinetorum, Gregory (forma pinetorum, Wiesb.).

"Summer leaves much exceeding the flowers:

Stipules 2-4 cm.' Neum. Flowers reddish."

9. Somerset, E. S. G. (no stations given).

Var. Foudrasi (Jord.), Rouy & Foucaud. "A small glabrescent plant, flowers small, often lilac-coloured, tinged with blue or red; spur hooked" (this chiefly distinguishes it from V. calcarea, which blooms a fortnight later).

 Castle Hill, Clevedon, Miss Livett, as a white-flowered form with greenish spur. "It agrees with a specimen in Herb. Mus. Brit. labelled 'V. hirta L., albiflora, var.

minuta, Dr. Schur.' "

Var. inconcinna, J. Briquet. "Flowers small, numerous; plant growing from woody underground branches which cross and recross one another."

9. Worle Hill; Christon, E. S. G.

Var. hirsuta, Lange. "Fleurs presque 1 fois plus grandes que dans a. [vulgaris, Ging.]; pédoncules florifères allongés (8—12 centim.); feuilles plus hérissées, presque velues" (Rouy & Foucaud, Fl. de France, III, 21).

9. Christon, E. S. G.

Var. lactiflora, Reichb. "Petals milk-white, or white streaked with purple; with whitish or lilac spur; or lateral and inferior petals white, two upper streaked with violet (chiefly on the outside), spur reddish violet, inferior petal with dark purple lines; upper petals inclining upward and outward; capsule glabrous, green, mottled with purple."

9. Cadbury Camp; Clevedon; Banwell Wood, E. S. G.
Between Brockley and Goblin Combes ("flowers almost

white"), Fl. Bristol.

Forma rosea, Beeby. "Upper petals directed upward and outward; flowers rose-coloured."

9. Christon; Wrington, E. S. G.

I grew this colour-variety, from Martin Mill (between Deal and Dover), E. Kent, for some years; it came true from seed.

[Var. propera, Jord. Mr. White says that this was identified by Mrs. Gregory; it is not specified for the county in her Monograph, but that gives few details, and it may have been overlooked].

V. HIRTA X ODORATA.

Form × V. superodorata, Gregory (a hybrid much nearer to V. odorata).

9 Banwell Wood, E.S.G.

Form V. sepincola, Jord. "Near V. odorata L., with more numerous, longer, sometimes rooting, stolons . . . . Flowers large, dark reddish or rich violet colour, faintly scented . . . ."

9. Wrington; Weston Woods, E. S. G. Uphill (Miss Roper;

named by Mrs. Gregory), Fl. Bristol.

 Murdercombe, near Mells (white-flowered and beardless), J. W. White.

Form V. permixta, Jord. (On the hirta side; the pre-

vailing hybrid form).

Weston-super-Mare; Winscombe; Christon, E. S. G.
 Laneside above Limeridge Wood, towards Cadbury
 Camp; banks in the lane leading from the railway
 station to Wookey Hole; West Hill, Wraxall, Fl.
 Bristol.

 Wood at top of Bourton Combe, and by the side of green lanes thence along the ridge of Blackwell Hill; Murdercombe, between Mells and Great Elm., Fl. Bristol.

For arguments against the theory that violets of this group are of hybrid origin, see Fl. Bristol, pp. 172-3; but Mr. White concludes that some considerations which he mentions "point to the probable hybrid origin of V. permixta, as well as of some other doubtful intermediates related to allied species." I have not recently paid much attention to this subject; but about a dozen years ago I lived in W. Sussex, where several different forms occurred with V. hirta and V. odorata, and came to the conclusion that mongrels existed, as well as direct hybrids. Monographers are probably justified in giving special names to such variations; for the general botanist, however, the multification of 'varieties' and 'forms' is at times excessive.

V. CALCAREA, Gregory.

Described and figured in Journ. Bot., 1904, pp. 67-8; photographed from dried specimens in Mrs. Gregory's Monograph, facing page 26. The writer admits that "although this is a widely different plant in appearance from V. hirta (type), the two are connected by a whole series of intermediates," but points out that this is the case with other species of the genus, generally admitted to be quite distinct. Mr. White, an independent witness who knows the plant well, is most emphatic:—"A very well-marked species, that has been proved by many years' cultivation to maintain its peculiarities unaltered. The very short, conical, almost imperceptible spur (in some of the later flowers

it is only rudimentary and quite concealed by the sepals), and stout, branched, woody rootstock, are strong characters that in no degree grade or shade into either of the other species. Mr. J. G. Baker, F.R.S., reported to Mrs. Gregory: 'We have put your violet in the richest soil we can find at Kew Gardens, but cannot prevail on it to change its characters'" (Fl. Bristol).

9. Worle Hill; Bleadon Hill!, etc., E.S.G. Brockley Combe, and plentiful on the high ground thence towards Cleeve; hedge-banks on Tickenham Hill, and in a stony pasture hard by; on the Cadbury range, Court Hill, and Castle Hill, Clevedon (D. Fry); hillside N.W. of Cheddar (Miss Livett); Sandford Hill, Fl. Bristol.

10. Bourton Combe; Hampton Down, near Bath (Miss Peck),

Fl. Bristol.

The usual flowering-season is April and May; but I saw two or three plants in bloom on March 7th, 1910, between Axbridge and Cheddar Wood, facing south.

V. SYLVESTRIS, Kit. [an Lamarck?] (V. Reichenbachiana, Boreau).

1. Near Dulverton Station, E.S.M.

3. Bathpool ; Pitminster ; Corfe ; West Hatch ; Wrantage ; Curry Rivel,  $E.\,S.\,M.$ 

5. Aller; Somerton; Pitney; Kingweston, E. S. M.

8. Bruton, W. Watson.

 Cheddar; Churchill; Bleadon, E. S. M. Walton valley, both on the Clapton side and above Weston-in-Gordano, Fl. Bristol. Abundant about Loxton; Christon; Wins-

combe. and Uphill, E. S. G.

10. Barrow Gurney; abundant about Stockwood, and in the Chew valley, Fl. Bristol. Near Bath (Miss Peck), Mrs. Gregory. "Well dispersed over our whole area; preferring, but not restricted to, a calcareous soil," Fl. Bristol (my experience is the same).

Var. punctata, Druce. Among its characters are the furrowed spur; long, purplish, narrow sepals; purpleblotched lateral and lower petals; and long, narrow anther-spurs.

9. Plentiful at Christon; Loxton; Banwell; Winscombe,

etc., E. S. G.

Forma pallida, Neuman. "Petals pale, bluish mauve, not reddish lilac; spur pale."

9. Wrington, E.S.G.

Forma leucantha, Beck. "Flowers bone-white."

5. Border of Somerton Wood; very scarce, E. S. M.

9. In fair quantity near Weston-super-Mare, Fl. Bristol.

V. RIVINIANA & SYLVESTRIS.

3. Nailsborne, near Taunton, W. Watson.

## V. RIVINIANA, Reichb.

Var. pseudo-mirabilis, Gregory (V. pseudo-mirabilis, Coste). Intermediate in appearance between V. mirabilis, L. and aggregate V. sylvatica, Fr., which included both V. sylvestris and V. Riviniana.

4. Roadside between Crewkerne and Beaminster (Herb.

Clark, 1850).

Forma nemorosu, Neuman. Spur coloured [usually not furrowed]; sepaline appendages shorter. A strong, large-flowered plant, often blooming considerably later than the type.

3. Lane above West Monkton, E. S. M.

9. Weston-super-Mare; Clevedon; Tickenham, and many other localities in the county, E. S. G.

10. Bath (Miss Peck).

Forma villosa, Neuman.

9 Winterhead, below Shipham, among mining debris; a plant with reddish flowers, smaller and darker spur, toothed bracts, and hairs on stem, petiole, peduncle, and both leaf-surfaces. A similar form from the outskirts of Weston Woods, moved to a shady spot in Mrs. Gregory's garden, became glabrescent; so it may be only a state, and not a permanent variation.

Forma minor, Murbeck, ex Gregory (V. flavicornis, Forster, non Smith). A small, small-leaved plant, with few, large flowers; spur pale or yellowish. "Not

uncommon," Fl. Bristol.

9. Blackdown on Mendip; Clevedon, E.S.G.

10. Near Bath, E. S. G.

V. CANINA, 'L.', Hayne, Fries.

Mr. A. J. Wilmott has given good reasons (*Journ. Bot.*, 1911, pp. 289 to 293) for identifying the Linnean *V. canina* with *V. Riviniana*; but Mrs. Gregory retains the name for the present species.

2. Minehead Warren.

 Heathy pastures at the source of the River Brue, near Bruton, C. E. Moss (Kingsettle Hill, W. Watson, may

be the same).

 Barrow Hill, at 600 feet, above Barrow Gurney; Walton and Court Hills, Clevedon; Clapton and Weston Moors; hills on the Bleadon range, above Hutton (Mrs. Gregory); Worle Hill; Brean Down, Fl. Bristol. Var. macrantha, Gren. & Godr. Robust, with large flowers.

8. Sandhills, Burnham, E. S. G.

9. Sandhills, Weston-super-Mare and Berrow!, E.S.G.

10. Leigh Down, Fl. Bristol.

Var. ericetorum, Reichb. (V. flavicornis, Smith, in part).
A low-growing, floriferous plant, with many prostrate or ascending stems, found on heaths and hilly ground.

8. Peat moor, near Shapwick! (forma alba). What is apparently the same thing, found on Walton Heath near Glastonbury by Collins and Clark, "agrees well with V. nemoralis, Jord., as described by Rouy & Foucaud," Fl. Bristol.

 Worle Hill, E. S. G.; Hillside near Clevedon (Miss Barstow: forma alba).

- Furzy hillside near Stanton Drew, towards Knowl Hill, Fl. Bristol.
- V. CANINA X RIVINIANA.
  - 9. Worle Hill, E. S. G.
  - 10. Bath (Miss Peck).
- V. CANINA X SYLVESTRIS.
  - 9. Banwell Wood (Mrs. Gregory), Fl. Bristol.

V. LACTEA, Sm.

Native. Heaths, etc.; very rare. May, June.

1. Specimens from Exmoor, Somerset, have been seen by Mrs. Gregory in Mr. W. P. Hiern's collection.

 Crowcombe Heathfield, 1910, close to the railway station. E. S. M.

V. LACTEA × RIVINIANA.

2. Crowcombe Heathfield, with the parents, E. S. M.

A good intermediate, just like the Tidenham Chase plant mentioned in the Monograph, p. 95. In cultivation both produce masses of handsome flowers, but set no fruit.

V. ARVENSIS, Murray.

Very little is known about the Jordanic segregates in Somerset. Mr. Watson records V. obtusifolia from 3. Staplegrove, and thinks this to be our usual form; Dr. Drabble so named a plant of Mr. White's from 9. Sandford, and referred one from 8. the peat moors to V. agrestis. Mr. White believes that V. ruralis and V. obtusifolia occur at 9. Wraxall; possibly also, V. Lloydii. I have not seen any form of restricted V. tricolor, L. (saxatilis, Schmidt) in the county; from the remarks in Fl. Bristol and Fl. Som. it seems to be extremely rare, and hardly more than a casual.

V. BUTEA, Huds.

Native. Grassy hills; very rare. June to August.

I. South east of Exford Church, 1901, A. Lyons; identified by Mrs. Gregory, and confirmed by Mr. E. G. Baker. It should be found elsewhere on Exmoor.

### POLYGALACEAE.

## POLYGALA, L.

P. VULGARIS, L.

This has been observed in districts 2, 5, 8 and 9, since Fl. Som. was published.

P. OXYPTERA, Reichb.

1. Between East Anstey and Brushford.

2. Hill above Culbone Church.

9. Upland pastures above Cheddar and Draycott!; and in Cheddar Gorge!; Weston-super-Mare (Mrs. Gregory), Fl. Bristol. Uphill.

10. Furzy hillside between Ursleigh and Pensford (D. Fry),

Fl. Bristol.

Ascends to 800 feet, near Cheddar. Unlike Messrs. Murray and White, I think this specifically distinct from P. vulgaris.

P. SERPYLLACEA, Weihe (depressa, Wenderoth).

1. Winsford. Between East Anstey and Brushford.

2. Minehead. Bossington. Culbone.

3. Pickeridge, Corfe; Stoke St. Mary, W. Watson. Near Wiveliscombe.

4. Staple Common.

6. Between Castle Neroche and Buckland St. Mary.

8. Masbury, W. Watson.

9. Abundant on the Mendip heath-land; Barrow Hill and Potter's Hill; Walton-in-Gordano, Fl. Bristol.

10. Upper Failand; near Stanton Drew; Downside Common,

Fl. Bristol.

P. CALCAREA, F. Schultz.

10. Abundant on an oolitic hill near Fortnight, between Bath

and Combe Hay (F. Samson), Fl. Bristol.

"The station given in Murray's Flora is now in Wilts." C. E. Moss in litt., 1910.

#### CARYOPHYLLACEAE.

## DIANTHUS, L.

D. Armeria, L.

9. Rather plentiful on the down north of Charlcombe Bay, between Clevedon and Portishead (Miss Livett, 1909); lane from Tickenham to Cadbury Camp (Miss Ruddock, 1898); slope under Cadbury Camp, Tickenham side, in plenty (A. E. B. Gregory, 1901); Barrow Hill (Herb. Perrin), Fl. Bristol.

10. Garden weed at Failand, for forty years (D. Williams),

Fl. Bristol.

D. DELTOIDES, L.

8. A large patch in Croscombe Churchyard, apparently wild (Miss Roper), Fl. Bristol.

D. GLAUCUS, Huds. (caesius, Sm.).

9. Mr. White gives a new station, "on some crags towards Charterhouse, at a distance from Cheddar Gorge." It has been sown on limestone rocks in Cannington Park, dis. 3.

#### SAPONARIA, L.

S. OFFICINALIS, L.

8. Bruton, with double flowers, W. Watson.

 Hedgerow by cottages on the Clevedon Road, under Cadbury Camp, with single flowers; a quantity, doubleflowered, by the sidings in Portishead Station-yard, Fl. Bristol.

10. Bank of Avon near St. Anne's Park, opposite Conham; a large patch in the "Cut" opposite Albion Place, Cumberland Road; meadow at Publow, roadside hedge between Pensford and Whitley Batch, and Lord's Wood, Houndstreet (D. Fry); Woodborough (F. A. Knight); lane east of Dunkerton Church, Fl. Bristol.

[S. VACCARIA, L.

5. Railway station, Castle Cary, 1910, C. E. Moss.

8. Bruton; a rare casual, W. Watson.

9. Waste ground, Clevedon (Miss Ruddock); Portishead Station-yard, Fl. Bristol.

 Refuse tip, St. Anne's, Brislington (C. Wall); Keynsham (W. H. Pullin); Twerton (S. T. Dunn); Bathampton Station (Miss Peck), Fl. Bristol.

A rubbish-heap casual, which I believe is never permanent].

#### SILENE, L.

S. LATIFOLIA, Rendle & Britten (S. Cucubalus, Wibel; S. inflata, Sm.), var. puberula (Jord.).

5. Pitney.

S. Dinder (Miss Livett), Fl. Bristol.

- Bleadon Hill (C. Bucknall); Nightingale valley, Weston in-Gordano (Miss Livett), Fl. Bristol.
- Roadside between Abbotsleigh and Haberfield Bridge; plentiful towards the bottom of Tickenham Hill, Fl. Bristol.
- "A hybrid with the next species is on record from the Mendips by the Rev. E. F. Linton. This I have not seen." Fl. Bristol.

S. MARITIMA, With.

2. Frequent between Porlock Weir and Hurlstone Point.

8. Sand-hills, Burnham, C. E. Moss.

 On old mining ground between Shipham and Rowberrow, Fl. Bristol.

S. NOCTIFLORA, L.

3. Near Langport, W. Watson.

8. Bruton; very rare, W. Watson.

9. Portishead Station-yard (Miss Livett, 1906), Fl. Bristol.

10. Near the gas-works, Bath, Fl. Bristol.

## LYCHNIS, L.

L. ALBA X DIOICA.

2. Hedge at Greenaleigh, near Minehead.

Coombe, West Monkton. Frequent near Taunton, W. Watson. Hedgerow near Wellington; variable in character, S. R. Price in Journ. Bot., 1910, p. 333.

Mr. White, perhaps rightly, classes L. alba as a colonist.

L. GITHAGO, Scop. (Githago segetum, Desf.)

2. Williton.

5. Sutton Mallet, H. Slater.

- Very rare near Bruton; only at Collinghayes Farm, C. E. Moss.
- Claverham (Miss Winter and W. E. Green); near Portbury (R. Brown); Backwell (D. Fry); Wraxall, Fl. Bristol.
- 10. Refuse tip at St. Anne's, Brislington, Fl. Bristol.

## CERASTIUM, L.

C. TETRANDRUM, Curt.

Common between Porlock Weir and Hurlstone Point. Coast below Williton. 9. Barrow Hill (Miss Roper); shore, Kewstoke Bay; Weston-super-Mare!; Worle Hill; Green Beach, Clevedon (Miss Livett); Sandford Hill and Burrington (Mrs. Gregory); Uphill!; Purn Hill, Bleadon; Chelvey Batch and Backwell Hill; hillside above Axbridge; Brean Down!; abundant on the sands near Brean! and Berrow!, Fl. Bristol. Crook's Peak. Sea wall below Clevedon, and Court Hill, Clevedon, 1913, Miss Livett.

C. PUMILUM, Curt.

9. Weston-in-Gordano (D. Fry); field-walls at Sidcot; between Blackdown and Cheddar, and near the Mineries towards Ebbor and Wells!; Bleadon! (H. S. Thompson); Swallow Cliff, Sand Point; Uphill, in great abundance all over the hill!, Fl. Bristol. Crook's Peak.

C. SEMIDECANDRUM, L.

8. In several spots near Wells, Fl. Bristol.

9. Weston-in-Gordano (D. Fry); Sidcot; between Blackdown and Cheddar; Bleadon (H. S. Thompson); Worle Hill; Swallow Cliff, Sand Point, very viscid; hill above Birnbeck, Weston-super-Mare; Uphill!, in great abundance, Fl. Bristol. Berrow. Compton Bishop.

10. Wall by the Avon under Leigh Wood; rocks on Potter's

 Wall by the Avon under Leigh Wood; rocks on Potter's Hill above Barrow Gurney at 650 feet, Fl. Bristol.

C. VULGATUM, L. (triviale, Link), var. holosteoides, Fr.

9. "Rather plentiful in Shipham Bottom on Mendip, with the type. It forms little matted tufts near the streamlet that runs through the Bottom from Blackdown. First noticed and pointed out to me by Mr. Cedric Bucknall. This variety is of tufted habit and low stature, the stems as a rule not exceeding a decimetre. Some of the specimens are quite glabrous, while in others the leaves bear a few scattered long hairs, entirely different from the close pubescence of type triviale." Fl. Bristol.

C. ARVENSE, L. Field Chickweed.

Native. Dry ground on limestone soils; very rare. Spring, summer.

9. Hillside above Loxton, at intervals for nearly one hundred

yards (Mrs. Gregory), Fl. Bristol.

10. High bank by the roadside leading from Portbury through the Charlton estate, scattered over a few square yards (Miss Roper), Fl. Bristol. A very interesting addition to the county list.

### MOENCHIA. Ehrh.

M. ERECTA, Gaerin., Mey. & Scherb. (quaternella, Ehrh.).

2. Holford Combe, H. Corder, Black Hill and Rodhuish Hill, near Withycombe, H. Slater. Frequent on the coast between Porlock Weir and Hurlstone Point. Minehead Warren, as suggested in Fl. Som.

3. Beacon Top, near West Monkton. Quantocks, east of

Cothelstone.

4. Castle Neroche.

### STELLARIA, L.

S. AQUATICA, Scop. (Malachium aquaticum, Fr.).

 Williton. Minehead. Dunster.
 Durston, W. Watson. West Monkton and Bathpool. Wiveliscombe.

4. Chard Reservoir.

8. Near Ashcott Station. Wedmore, and generally throughout the alluvial marsh-lands as far as and on the peat moors, Fl. Bristol.

9. Portbury, abundant in marsh ditches between the Church and Station; Walton-by-Clevedon; Weston-in-Gordano; Kenn Moor (S. T. Dunn); ditches near Bleadon (H. S. Thompson); Tickenham Moor (Miss Livett); Draycott, Fl. Bristol.

10. By the Malago near Lock's Mills; plentiful near Keynsham and Saltford in several spots on the river-bank;

Murdercombe, west of Mells, Fl. Bristol.

[S. NEMORUM, L. should be looked for in the Exmoor neighbourhood; it was discovered a few years ago by the Rev. A. Lev at Watersmeet near Lynton, N. Devon.]

S. APETALA, Ucria (including S. Boraeana, Jord.).

2. Locally plentiful in sand, Minehead Warren.

3. Taunton, W. Watson.

8. Burnham!, Fl. Bristol.

9. Brean Down! (Mrs. Gregory), Fl. Bristol. Brean Berrow. Crook's Peak.

S. NEGLECTA, Weihe.

- 2. Frequent about Washford, Dunster, Minehead, and Porlock.
- 3. Common all round Taunton.

6. Chard, etc.

9. Markham Bottom, Fl. Bristol

 Barrow Gurney; hedgebanks off Yandy Lane near the "Wild Country"; plentiful in moist lanes along the Chew Valley between Pensford and Compton Dando;

East Harptree, Fl. Bristol. About Frome.

Though less abundant than var. umbrosa, the pubescent type is locally common in several districts; Mr. White (Journ. Bot., 1904, p. 208) says that "the hairy form of umbrosa is frequent in North Somerset." The pedicels and calyces are sometimes glandular-pubescent, when it is my forma glandulosa. Often a 'winter annual'; but not, I think, truly perennial.

Var. umbrosa (Opiz).

This is the best form of the species; but it was described later, and must rank as a variety.

1. Exton.

2. Common from Williton westward to Culbone.

3. In profusion around Taunton. North Curry. Wiveliscombe, etc.

5. Aller.

6. East of Chard.

8. Bruton, W. Watson.

9. Walton-by-Clevedon (D. Fry); lane leading from the Clapton Road on to Walton Drove, Fl. Bristol.

10. Abbotsleigh, Pensford, Stanton Drew, Stockwood, and Keynsham (D. Fry); Woollard and Compton Dando; Queen Charlton; Norton Malreward; Combe Hay, Fl. Bristol. About Frome. Hinton Charterhouse.

Var. decipiens, E. S. Marshall.

- 1. In small quantity near Dulverton Station; not seen elsewhere. This has bluntly tubercled seeds and, as a rule, less showy flowers; apparently scarce in the West, whereas in Surrey and Sussex it is frequent, the type and var. umbrosa being rare. To one familiar with the S.E. counties the abundance of these in S. W. Somerset was a great surprise.
- S. DILLENIANA, Moench (palustris, Retz.; glauca, With.).

4. Near Chard, W. D. Miller.

 Drove near Tickenham, 1912, Miss Sandford, sp. For a dozen yards along the bank of a rhine on Nailsea Moor, 1913, Miss Roper; possibly the same station.

Only the glaucous form is known in Somerset.

S. ULIGINOSA, Murr.

I have seen this in dis. 6; still unrecorded for dis. 5.

### ARENARIA, L.

A. VERNA, L. (Alsine verna, Bartl.).

 Rocky pasture at the extreme north-east of Cheddar Gorge (Dr. C. E. Moss), Fl. Bristol.

A TENUIFOLIA, L. (Alsine tenuifolia, Crantz).

S. Railway between Bruton and Castle Cary; abundant on a wall-top at Durslade Farm, Bruton, C. E. Moss.

 Rush Hill, near Twerton (Herb. Flower, 1849); top of Bathwick Hill (A. E. Burr); on a retaining wall of the G.W.R. embankment at Newton St. Loe below Bath close to the river-bank, abundant in 1897 (D. Fry), Fl. Bristol.

A. LEPTOCLADOS, Guss.

1. Dulverton. King's Brompton.

2. Minehead. Bossington. Dunster. Williton, etc.

3. Common about Taunton and Bridgwater.

4. Chard.

5. Chedzoy. Charlton Mackrell.

8. South Brent.

9. Walton-by-Clevedon; roadsides between Worle and Weston - super - Mare; Brean Down!, Fl. Bristol. Bleadon. Compton Bishop.

10. Saltford, Burnet, Lansdown, Hallatrow, Stanton Drew, etc. (D. Fry); Pensford, Fl. Bristol. Abundant on the

Bath Oolite.

In the south of the county I find this far more general than A. serpyllifolia.

A. PEPLOIDES, L.

2. Stolford.

# SAGINA, L.

S. MARITIMA, Don.

 Stolford. Between Porlock Weir and Hurlstone Point, where it is often decumbent (agreeing with my specimens of Townsend's M.S. var. prostrata, which does not seem to have been published), but smaller and more compact than the following.

Var. debilis (Jord.).

- 8, 9. Burnham and Weston-super-Mare, Fl. Bristol.
- S. APETALA, Ard.

2. Dunster.

3. West Monkton. Durston Station.

9. Portishead; Ashcombe, near Weston-super-Mare; Ship-

ham, Fl. Bristol.

10. Ashton Park; wall by Rownham Ferry; footpath, close to Brislington Station (frequent about Keynsham and Brislington, D. Fry); Lyncombe, Bath (J. G. Baker), Fl. Bristol.

S. CILIATA, Fr.

2. Coast between Porlock Weir and Hurlstone Point; frequent. Dunster. Steart.
3. West Monkton; scarce. Foot of Cothelstone Beacon,

at 1,080 feet.

5. Chedzov.

9. Mendip plateau above Ebbor Rocks; southern slopes of Brean Down. Fl. Bristol.

10. Abundant in a rocky sandstone pasture between Keyn-

sham and Brislington, Fl. Bristol.

S. PROCUMBENS, L., var. spinosa, Gibs. 9. Sand Bay, Kewstoke (Mrs. Gregory), Fl. Bristol.

S. NODOSA, Fenzl.

9. Moist pasture near the Station, Weston-super-Mare (Miss Livett), Fl. Bristol.

10. Failand (D. Fry); on dry limestone ground near Holwell (Rev. S. Laing), Fl. Bristol.

# SPERGULA, L.

S. ARVENSIS, L.

1. Between East Anstey and Brushford.

8. Bruton, W. Watson. Burnham (D. Fry), Fl. Bristol. 9. Walton-in-Gordano (Miss Livett); Clevedon (W. E. Green); Winscombe; Brean Down; common in arable fields on the Old Red Sandstone of the Mendips: not noticed on any of the calcareous soils of the district (Dr. C. E. Moss), Fl. Bristol. Weston-in-Gordano, 1913, Miss Livett. Field between Draycott and Cheddar Gorge, at 700 feet; in light soil, but overlying the Mountain Limestone.

S. SATIVA, Boenn.

1. Near Winsford, 1910.

# SPERGULARIA, Presl (Lepigonum, Wahlenb.).

S. RUBRA, Pers.

2. Hurlstone Point, etc., near Bossington.

- 3. Cheddon Fitzpaine. Gotton, West Monkton; also in rocky ground at Beacon Top, nearly two miles eastward.
- " Quite unknown in N. Somerset," Fl. Bristol.

S. SALINA, Prest.

2. Porlock Weir, etc.

8, 9 In fair quantity at intervals from the mouth of the Axe at Brean Down to the Brue near Highbridge!, Fl. Bristol.

Var. neglecta (Syme).

2. Near Bossington. Dunster. Blue Anchor. Stolford to Steart.

8. Burnham !, Fl. Bristol.

- 9. Abundant about sea-banks near Wick St. Lawrence; Uphill salt-marsh! (Mrs. Gregory); Brean!, Fl. Bristol.
- S. MARGINATA, Kittel.

2. Near Bossington.

Var. glandulosa, Druce. Frequent.

- 2. Greenaleigh, near Minehead. Stolford to Steart. 3. By the tidal Parret, from Combwich downwards.
- 8. Mud-banks at the mouths of the Brue and Parret!, Fl. Bristol

S. RUPESTRIS, Lebel.

Native on coast cliffs; very rare. June to October.

1. Sparingly at Hurlstone Point, near Bossington, 1907.

It may occur between there and Minehead, and on the rocks between Porlock Weir and Culbone; but no special search has been made.

### PORTULACEAE.

### MONTIA, L.

 Withypool, W. Watson. Winsford. King's Brompton.
 Selworthy; Dunkery (var. minor), W. Watson. Porlock. Near Weir Water, Oareford (var. erecta, Pers.), C. E. Salmon. Very common by all hill rills (var. rivularis), H. Slater.

3. West Monkton (var. minor)

9. Weston-in-Gordano (C. Bucknall); Clapton Moors, Fl. Bristol.

10. About a mile north-west of Keynsham (D. Fry), Fl. Bristol.

#### HYPERICACEAE.

### HYPERICUM, L.

H. Androsaemum, L.

2. With veombe, H. Slater.

3. Pickeridge, W. Watson. West Monkton; scarce. Stoke St. Mary. Near Bathealton. 4. Curland, W. D. Miller.

5. Aller Wood.

8. Bruton; rare, W. Watson.

- 9. Bourton (Misses Cundall); above Weston-in-Gordano; near Walton-by-Clevedon; on Blackdown above Rowberrow Bottom, at 850 feet; slopes of Mendip near Blagdon, Fl. Bristol. Outskirts of Cheddar Wood, and lane below it.
- 10. Failand Hill (D. Williams); Rectory Wood, Wraxall; near Keynsham, Pensford, and Stanton Drew (D. Fry); about Ursleigh Hill and Publow (Misses Cundall); between Edford and Leigh-on-Mendip; slopes of Mendip near the Harptrees; Railford Wood near Whatley (Rev. S. Laing), Fl. Bristol.
- H. MACULATUM, Crantz (dubium, Leers). 10. Whatley (Rev. S. Laing), Fl. Bristol.

H. HUMIFUSUM, L.

2. Wootton Courtney; Tivington; Porlock, etc., H.

8. Pen Hill, near Wells (Miss Livett), Fl. Bristol.

- 9. Backwell Hill; Hartcliff Rocks (Miss Roper); coast turf between Clevedon and Walton Bay; skirt of the wood on Worlebury Hill (Herb. Cundall); Westonsuper-Mare (Miss Livett); Blackdown (Mrs. Gregory), Fl. Bristol.
- 10. Leigh Woods, in several spots; Failand Hill; Keynsham, Fl. Bristol ..

H. MONTANUM, L.

1. Barle Valley, W. Watson.

5. Near Dunball, H. S. Thompson.

9. Near Portishead; on the northern end of Worle Hill, over Kewstoke, and more sparingly on rocks towards the other extremity nearer Birnbeck!; rocky slopes above Cheddar; Hutton Combe, Fl. Bristol.

H. ELODES, L. (Elodes palustris, Spach).

1. Beer Moors, etc., between East Anstey and Brushford.

4. Staple Common.

 In 1910 Miss Winifred Mather sent Mr. White specimens gathered near Ashcot Station. It had not been seen on the peat moor for many years.

### MALVACEAE.

### ALTHAEA, L.

A. OFFICINALIS, L.

8. Two clumps in a ditch between South Brent and Mark (C. Bucknall, 1907), Fl. Bristol.

9. Ditch-bank between Brean and Berrow (Chas. Withers,

1907), Fl. Bristol.

A. HIRSUTA, L.

[9. Waste ground near Portishead Station, 1903 and 1905

(Miss Peck), Fl. Bristol.

10. Orchard at Failand, 1894—probably introduced with manure, and soon died out; Avonside between Saltford and Newton Bridge (Mrs. Dent Young, 1911), Fl. Bristol.]

### LAVATERA, L.

L. ARBOREA, L.

2. Near the sea, Porlock Weir; but scarcely native, C. E.

Salmon.

 Still on Steep Holm, 1909, G. C. Druce. Several fine old specimens in a long-abandoned quarry on Bleadon Hill, and some small ones on a roadside close by, 1910; southern slope of Brean Down near the farmstead, no doubt derived from a neighbouring garden, Fl. Bristol.

### MALVA, L.

M. мозсната, L.

1. Between East Anstey and Brushford.

2. Bossington. St. Audries.

3. West Monkton. Wiveliscombe.

4. Chard.

9. Tickenham; plentiful about Weston-in-Gordano and Portishead; Kewstoke; Draycott; Flax Bourton, Fl. Bristol.

Brislington; Keynsham; Whitchurch; Pensford;
 Stanton Drew; Stanton Wick; near Clutton, F1.

Bristol.

"Nearly the whole of our plants are the common British form—laciniata Lej.—with leaves all deeply divided into narrow segments. But there are a good many on oolitic hills to the northeast that have lower leaves roundish, entire; and these may come under the var. heterophylla Lej." Fl. Bristol.

The white-flowered plant has been found in quantity by Mr.

White near Abbotsleigh, and by Miss Roper at Failand.

[M. SYLVESTRIS, L., var. dasycarpa, Beck.

10. Waste ground, St. Philips, Bristol, 1906, Fl. Bristol.

Var. eriocarpa, Boiss.

 Corn-mill refuse near Portishead Dock, 1906 and 1911, Fl. Bristol. Mr. White believes it to have been introduced with barley from Smyrna.]

M. ROTUNDIFOLIA, L.

2. Bossington. Washford.

5. Chedzoy.

8. Burnham, Fl. Bristol.

9. Portbury; abundant between Yatton and Kenn; Weston-super-Mare, Hutton, Bleadon, Uphill!, and Brean Down (Mrs. Gregory); Rowberrow; Sidcot; Rodney Stoke, Fl. Bristol.

10. Keynsham; Long Ashton; Saltford, Corston, North Stoke and Woollard (D. Fry), Fl. Bristol.

[M. PARVIFLORA, L., has occurred at 9. Portishead Station-yard (several years) and 10. Twerton (S. T. Dunn); and M. borealis, Wallm. (pusilla, Sm.) at Twerton, as a barley-alien (S. T. Dunn), Fl. Bristol.]

### TILIACEAE.

### TILIA, L.

T. CORDATA, Miller (parvifolia, Ehrh.).

3. Halswell, 1824, Herb. Clark (H. S. Thompson).

Several small trees on Sandford Hill (D. Fry), Fl. Bristol.
 Bourton Combe, sparingly, Fl. Bristol. "It forms a large proportion of the underwood throughout the King's Wood, near Yatton, and the other woods—Ball Wood and Col. Long's Woods—adjoining. In Mr. Murray's account (Fl. Som., p. 64), it looks as if three distinct localities were indicated; but they all refer without doubt to this range of woodland that overlooks Yatton and Congresbury," Ibid.

#### LINACEAE.

### LINUM, L.

L. HENNE, Miller (angustifolium, Huds.).

2. Dry slopes near Withycombe; plentiful, H. Slater.

3. Dry bank, Clavelshay, near North Petherton; field above Gotton, West Monkton, W. D. Miller.

5. Add, after the entry in Fl. Som. :- " and all the sunny slopes in the neighbourhood," H. Slater. Compton Dundon.

8. Frequent about North Wotton, 1882. Yarley Hill near

Wells (Miss Livett), Fl. Bristol.

9. Weston-in-Gordano (Rev. G. W. Braikenridge); Tickenham Hill; Sandford Hill (H. S. Thompson); sandhills, Weston-super-Mare (Herb. Flower); Max Mills, Winscombe  $(R, \tilde{V}, Sherring)$ ; above Rodney Stoke and Draycott; Ubley, Fl. Bristol.

10. Between Leigh Court Lodge and Abbotsleigh; hilly

pasture above Midford, Fl. Bristol.

### GERANIACEAE.

### GERANIUM, L.

G. VERSICOLOR, L. (striatum, L.). Though originally an escape, this is now too well established in a few places to be reckoned among excluded species.

2. Bossington, W. Watson. Roadside, Selworthy, C. E. Salmon. By a stream at Alcombe, H. W. Pugsley.

- 10. Lane near Bourton Combe, known there for thirty years at least; laneside between Long Ashton and Failand (Miss Roper), Fl. Bristol.
- G. PHAEUM, L. See remark on the last species.

8. Established near Cole, W. Watson.

9. Wrington, 1835 (Dr. Rogers in Stephens Cat.)—wood between Wrington and Langford (D. Williams, 1910), may be the same place; several years on rubbish at Hutton Court, of garden origin (Mrs. Gregory); in a little dell at Charterhouse-on-Mendip, south-east of Blackdown (Miss Roper), Fl. Bristol.

- One or two plants as outcasts at Abbotsleigh, 1886 (J. F. Hopkins); bank of the brook at Long Ashton, 1835 (Dr. Rogers in Stephens Cat.); naturalized about Stockwood, sparingly (Swete, Fi.), probably now extinct, Fl. Bristol.
- [G. SYLVATICUM, L. "Shepton Montague; brought to me on one occasion, but only on a railway bank," W. Watson. A very strange occurrence, as this northern plant is seldom grown in gardens].

G. PRATENSE, L.

 Mr. W. B. Butler confirms the record from near Taunton. I have not met with it in S. Somerset.

8. Near Edington Road Station, H. S. Thompson.

9. Backwell (D. Fry); about Flax Bourton and Wraxall; between Axbridge and Cheddar (W. F. Miller); Dray-

cott; Compton Martin, Fl. Bristol.

 Brislington; near Queen Charlton (D. Fry); Saltford; Burnet; Stanton Drew; Dundry; under Stantonbury Hill; North Stoke; between Hallatrow, Litton and Hinton Blewett; East and West Harptree; Radford; Paulton, etc., Fl. Bristol.

G. PYRENAICUM, Burm. fil.

3. Thurlbear, W. B. Butler. Stoke St. Mary, W. Watson.

5. Wall at Chedzoy.

8. Bruton; probably a denizen, W. Watson. In a church-yard at Wells (W. B. Waterfall), Fl. Bristol.

9. Lane leading from Cadbury to Walton Drove; Weston-super-Mare; by the quarry at Uphill! Fl. Bristol.

10. Barrow Gurney; between Barrow Hill and Pennyquick Bottom, Kelston, Corston, Burnet, Claverton, South Stoke, and Midford (D. Fry); between Englishcombe and Bathampton; Bathwick, Batheaston, etc. (S. T. Dunn); Whatley (Rev. S. Laing), Fl. Bristol.

G. PUSILLUM, L.

2. Minehead. Between Stolford and Steart.

3. West Monkton.

9. Nyland, near Draycott; Kewstoke Bay; Brean Down

(Mrs. Gregory), Fl. Bristol.

Bedminster (Swete, Fl.); between Brislington and Keynsham (D. Fry); Combe Down, Bath (Herb. Flower, 1848), Fl. Bristol.

G. ROTUNDIFOLIUM, L.

9. Portishead (Mrs. Lainson); on the Congresbury and Wrington side of Yatton [Mr. Fry, in a letter to Mr.

Murray, expressed doubts about both the Clevedon and Yatton records in Fl. Som., and the first is not given

in the later book], Fl. Bristol.

10. Along the railway under Leigh Woods; St. Anne's, Brislington; between Keynsham and Saltford; between Knowle and Whitchurch; between Saltford and Burnet, and from there to Stantonbury (D. Fry); Combe Hay, Midford Hill, etc.; "a very pretty small form grows on exposed slopes about the old quarries on Claverton Down, above Bathampton," Fl. Bristol. Corston, D. Fry.

#### G. COLUMBINUM, L.

1. Near East Anstey, just within the county. Skilgate.

2. Selworthy, C. E. Salmon. Porlock Weir. Washford.

3. West Monkton.

8. Wedmore; rarely on the peat moors, Fl. Bristol.

 Tickenham Hill; Wraxall; Banwell Hill; Christon; Winscombe (W. F. Miller); Sidcot; Shipham; Burrington Combe; Worle Hill and Worlebury; Uphill!, (Mrs. Gregory), Fl. Bristol.

Belmont Hill and Failand (Miss Roper); between Pensford and Whitley Batch, Publow Hill, Ursleigh Hill, and between there and Queen Charlton (D. Fry); Comp-

ton Dando; Gurney Slade, etc., Fl. Bristol.

G. ROBERTIANUM, L., flore albo.

8. Wells!, (Miss Livett), Fl. Bristol.

 Claverham—between Yatton Moor and Cleeve—(Miss Winter), still there, after nearly thirty years; Burrington Combe; Cheddar Gorge (R. V. Sherring); between Wells and Wookey Hole (Herb. Cundall), Fl. Bristol.

 Leigh Woods (Mrs. Sandwith); railway near Bedminster Down (J. F. Hopkins); formerly on a railway-wall at

Newton St. Loe, Fl. Bristol.

"The very pale green foliage of this albino form is characteristic. There is not the slightest doubt of its coming true from seed without variation." *Ibid.* 

Var. purpureum (Vill.)?

Beaches near Porlock Weir, Minehead, and from Stolford to Steart; anthers orange, ealyx usually glabrous,

earpels glabrous.

In September, 1913, I again collected the plant so plentiful in the upper part of Cheddar Gorge, and concluded that it was rightly named; the anthers are orange, and the carpels almost glabrous. Possibly two forms occur there.

Var. modestum (Jord.)?

3. A plant frequent on hilly hedge-banks at West Monkton

seems to be best placed here.

 Uphill. I think that a form which is plentiful on limestone rocks and walls about Worle and Kewstoke is this, but have kept no specimen.

# ERODIUM, L'Hérit.

E. CICUTARIUM, L' Hérit.

2. Dunster Park: a peculiar plant with broad leaflets, which also occurs in sandy ground on the coast near Minehead Warren. Maritime sands, Steart: two very glandular forms, one of which agrees fairly well in foliage with what is usually called var. glandulosum, Bosch; the other has longer pinnae, more deeply cut, with linear or linear-lanceolate, very acute segments.

3. West Monkton.

 Bleadon. Ascends to 700 feet above Draycott.
 Evidently much more frequent in North than in South Somerset; Mr. White gives no localities.

[Var. pimpinellifolium (Sibthorp), Willd. "Apparently alien," J. W. White.

9. Station-yard, Portishead, 1902, Fl. Bristol.

 Abundant at the base of an old dust-heap by the Avon above Keynsham, 1895-7, Fl. Bristol].

E. MOSCHATUM, L' Hérit.

 There is a Middlezoy specimen in Herb. Clark, gathered by Collins in 1838; vouched for by Mr. H. S. Thompson, who has gathered it at Stawell.

 Abundant on a rocky bank at Loxton, 1896; Winscombe (H. S. Thompson), Fl. Bristol.

10. Portishead Station-yard, 1906-9, Fl. Bristol.

Var. minor, 'Rouy.

 The Purn Hill plant agrees well with the description; Mr. White has little doubt that Mr. Fry's Clevedon station produces the same form.

Classed as a denizen in Fl. Som.; but certainly native in several

places.

E. MARITIMUM, L' Hérit.

2. Coast near Bossington.

9. Brockley Warren, above Goblin Combe; Walton-in-Gordano (D. Fry); Shute Shelve Hill and Wavering

Down: near Loxton (H. S. Thompson); Weston-super-Mare (Herb. Lawrence, 1853); Uphill (Rutter's Hist.), Fl. Bristol. Still grows on Brean Down! and by Berrow Church!

### OXALIS, L.

O. ACETOSELLA, L. (Several places in dis. 5, H. Slater).

Var. subpurpurascens, DC.

2. Near Langbridge Mill, between Luxborough and Road-

water, H. Slater.

"The flowers are often pink or purple with darker veins, as was noticed by Swete in Failand Woods," Fl. Bristol.

#### IMPATIENS, L.

I. BIFLORA, Walter (fulva, Nuttall).

A North American alien; very rare. June to August.

10. Water-meadows near Flintford Farm, Frome; noticed for several seasons, but only since American grass seed has been used, Selina C. Harding in Journ. Bot., 1902, p. 364. Mr. W. Watson also records it from Frome.

### CELASTRACEAE.

### EUONYMUS, L.

E. EUROPAEUS, L.

10. In Journ. Bot., 1912, p. 377, Miss Ida M. Roper states that she found two bushes with white fruits, though other wise normal, growing with the ordinary form by a small stream near Bristol, called the Malago.

### RHAMNACEAE.

### RHAMNUS, L.

R. CATHARTICUS, L.

3. Stoke St. Mary.

5. In several places near Stawell, H. Slater.

9. Tickenham Hill, and under Cadbury Camp; Wraxall Hill (Misses Cundall); above Weston-in-Gordano; hedges near Puxton Station; Weston-super-Mare; Rowberrow; Draycott!; Cheddar Gorge!, Fl. Bristol.

10. Stockwood Lane: Whitchurch: Newton St. Loe; very abundant in lanes around Keynsham and Chewton Keynsham: between Queen Charlton and Whitchurch. and about Norton Hautville, Stanton Drew, and Clutton (D. Fry); Norton Malreward; between Woollard and Houndstreet; lanes leading from Farrington Gurney to Litton and Hinton Blewett; Great Elm; Asham Woods (Miss Livett); Nunney (Rev. S. Laing); Englishcombe; Combe Hay, Fl. Bristol.

R. FRANGULA, L.

3. Near Huntworth, H. S. Thompson. Slape Moor, between Milverton and Wiveliscombe.

5. Mr. H. Slater cannot find this on the Polden Hills: doubtless Collins's record was a clerical error for R. cathar-

8. "Here and there, all over the Turf Moor, on the flat," H. Slater; he has observed a tree above 7 inches in

diameter near Shapwick.

9. The Winscombe Station is given by Mr. White as Max Bog: 'Hill' being a misprint for 'Mill' in Fl. Som. In the wood, Portishead (Duck); a somewhat doubtful record. Fl. Bristol.

### ACERACEAE.

# ACER, L.

A. PSEUDO-PLATANUS, L.

Mr. White considers this to be completely naturalised; and his view describes the position better than Mr. Murray's.

A. CAMPESTRE, L.

Many trees of good size in Leigh Wood-up to 50 feet, Fl. Bristol. Mr. White believes the smooth-fruited form (var. leiocarpon, Wallr.) to be the more frequent in his area; though the records seem to shew that both forms are well distributed throughout the county.

### LEGUMINOSAE.

## GENISTA, L.

G. ANGLICA, L.

1. Brushford.

3. Clean Moor, between Wiveliscombe and Bathealton.

6. Marshy ground east of Chard.

G. TINCTORIA, L.

- 2. Stogumber, towards Crowcombe; locally plentiful.
- 3. Abundant on the plateau south of Pickeridge, near Corfe.

4. Near Chard Reservoir.

 Abundant near Loxley Wood, Shapwick, and in fields on High Ham Hill, H. Slater.

 Common at Bruton, W. Walson. Shapwick; Chilton Polden, H. Slater.

9. Wrington valley under Blagdon; roadside above Wraxall,

Fl. Bristol.

10. Whitehurch and Ursleigh Hill; between Pensford and Publow; plentiful in the Chew valley above Compton Dando; in great abundance on rough hilly ground between Featherbed Lane and Stowey, and between Stanton Drew and Knowl Hill (D. Fry), Fl. Bristol.

#### ULEX, L.

U. GALLII, Planchon.

1. Frequent about Brushford. Skilgate. Upton.

Porlock Hill, W. Watson. Crowcombe Heathfield.
 Coombe, West Monkton. Buncombe Wood, Kingston.

 Bourton Batch; at the head of Markham Bottom; about Portishead; Hutton and Bleadon!; Blackdown; Bur-

rington, Ubley, etc., Fl. Bristol.

Hillsides by Providence Place and Ashton Tump; Failand; Fox's Woods, and by Hanham Ferry; Keynsham; above Featherbed Lane towards Stowey and Sutton Court (D. Fry); the Harptrees, etc., Fl. Bristol.

Var. humilis, Planchon.

 "A depressed humifuse variety with small flowers, and crowded branchlets, that grows in dense patches to about 18 inches high. It has been recognized on Blackdown by Mr. Cedric Bucknall." Fl. Bristol.

### CYTISUS, L.

C. SCOPARIUS, Link.

1. Between East Anstey and Brushford. Exton.

2. Bossington. Culbone.

8. Shepton Mallet, W. Watson.

"Practically absent from the arable and limestone portions of the area, as well as from the Bath oolite . . . but of general distribution on the coal-measures," Fl. Bristol.

### ONONIS, L.

O. REPENS, L.

Bossington, Minehead Warren, Blue Anchor, Williton, St. Audries to Kilve.

3. Norton Fitzwarren, W. Watson.

4. Staple Fitzpaine.

5. Dunball.

8. Burnham.

9. Berrow; Uphill, etc. "Ascends to 800 feet on some of the higher Mendip pastures, in which it is abundant . . . . The spinous form has been noted on [10.] Ursleigh Hill and about the adjoining upland pastures and lane-sides towards Publow and Queen Charlton; and at Winterhead on Mendip." Fl. Bristol.

Var. horrida, Lange (O. maritima, Dumort.).

2. Plentiful in sand at Steart Point.

8. Burnham!, Fl. Bristol.

 Berrow!; downs on the coast near Walton, and on the ridge above Weston-in-Gordano (Miss Livett); Kewstoke Bay, Fl. Bristol. Uphill, on limestone.

"A prostrate, clammy, glandular-villose variety, growing on coast rocks and sand-hills. When young it is unarmed: spines are developed in the third year of its growth." Fl. Bristol.

O. SPINOSA, L.

2. Bossington, 1913, W. D. Miller.

8. Between Highbridge and Burnham.

9. Between Cleeve and Yatton; Clevedon (D. Fry); Uphill (Mrs. Gregory), Fl. Bristol.

 Between Stanton Drew and Clutton, and slopes of Lansdown above North Stoke (D. Fry), Fl. Bristol.

### TRIGONELLA, L.

T. ORNITHOPODIOIDES, DC. (purpurascens, Lam.)

Stolford, E. J. Hamlin, sp. Minehead Warren, as suggested in Fl. Som. Plentiful on the coast near Porlock.

9. Brean Down! (Miss W. M. Mather), Fl. Bristol.

### MEDICAGO. L.

[M. FALCATA, L.

8. Sandy field near the lighthouses, Burnham (D. Fry, 1884); still there, or near the same place, 1906, Fl. Bristol.

 Portishead Station-yard, on corn-mill refuse, 1900-8 (Mrs. Gregory and Miss Peck); Uphill (Dr. St. Brody), Fl. Bristol. 10. Bank of the Avon at Saltford, 1900, flood-borne? (D. Fry): Newton St. Loe (G. Morse), Fl. Bristol.

M. FALCATA × SATIVA (M. media, Pers.).
8. Waste ground, Burnham, near "The Colony" (H. S. Thompson, 1906), Ft. Bristol.

9. Near the Portishead Dock, Fl. Bristol.

Mr. White observes that it does not appear to produce any good pods. M. sylvestris, Fr., locally frequent in E. Anglia, has been thought a hybrid between the same parents, but seems to be quite fertile].

M. LUPULINA, L., var. Willdenowiana, Koch (fruit glandular-

hairy).

9. Portishead Station-yard; near the sea, Uphill (Mrs. Gregory), Fl. Bristol. Heron's Green, Compton Martin, C. E. Salmon.

M. DENTICULATA, Willd.

3. Cornfield near Curry Rivel, R. P. Murray.

5. Apparently native on grassy slopes over the Lias, close to Dunball Station.

8. Puriton Scars (Herb. Clark, 1821), H. S. Thompson.

- 9. Bank of Portishead Pill (Miss Peck, 1905-6), Fl. Bristol.
- 10. Sparingly by a quarry under Leigh Woods, 1899; Saltford (D. Fry); casual at Twerton (S. T. Dunn), Fl. Bristol.

[Var. apiculata (Willd.)

9. Waste ground, Portishead, 1900; no doubt an introduction, Fl. Bristol.

10. Casual near Twerton (S. T. Dunn, 1897), Fl. Bristol.

M. ARABICA, Huds. (maculata, Sibth.).

Selworthy Churchyard, C. E. Salmon. Blue Anchor. Washford. Williton. Stolford.

3. Staplegrove, W. Watson. West Monkton. Durston. North Curry.

5. Dunball.

9. Portishead Dock, very luxuriant (Miss Roper); Westonsuper-Mare (Mrs. Gregory); Uphill!, Fl. Bristol. Bleadon. Berrow.

10. Rownham, near the ferry; Mells (Rev. S. Laing), Fl.

Bristol.

### MELILOTUS, Hill.

M. ALTISSIMA, Thuill.

2. About Dunster! and Blue Anchor, C. E. Salmon. Stolford.

3. Creech St. Michael; Wrantage, W. Watson.

4. Staple Fitzpaine.

Aller Wood. Pastures near Compton Dundon.
 Ashcot peat moor, on cultivations, Fl. Bristol.

9. Clevedon (D. Fry); Berrow; Draycott, Fl. Bristol.

10. Slopes under Leigh Woods and on the Portishead railway;
Bedminster and Ashton Gate; railway-cuttings between
Long Ashton and Bourton; Brislington; Stockwood
Lane; Ursleigh Hill near Pensford, Fl. Bristol.

M. OFFICINALIS, Desr. (arrensis, Wallr.).

Alien; but now rather frequent northwards, and apparently well established. Railway banks, field-borders, etc. June to autumn.

8. Outskirts of Burnham (S. T. Dunn, 1895), Fl. Bristol.

 Clevedon (S. T. Dunn, 1895, and Miss Livett); abundant on the sidings at Portishead Station, 1900-8, Fl. Bristol.

10. Bank of the Avon below Bristol, 1884; road from Ashton Gate to the Hotwells; Saltford (D. Fry); old Lias quarry between Twerton and Englishcombe, Fl. Bristol.

[M. ALBA, Desr.

8. Still about Burnham, though reduced by building and golfing, Fl. Bristol.

9. Waste ground, Portishead, Fl. Bristol.

10. Quarry on Crox Top near Whitchurch (Rev. W. H. Painter); garden weed at Bath (S. T. Dunn), Fl. Bristol.]

[M. INDICA, All. (parviflora, Desf.). A casual alien.

9. Railway sidings and corn-mill refuse by Portishead Station, 1900-8; potato ground, Clevedon (Miss Livett), Fl. Bristol.

 Near the Avon at Newton St. Loe, varying in quantity, between 1893 and 1900 (D. Fry); Twerton (S. T. Dunn), Fl. Bristol.]

### TRIFOLIUM, L.

T. SUBTERRANEUM, L.

Locally abundant on the coast between Porlock Weir and Hurlstone Point.

3. Aisholt; plentiful, J. A. G. Cooper. West Monkton.

9. Weston-in-Gordano (D. Fry); Walton-in-Gordano (Miss Livett), Fl. Bristol.

10. Between Flax Bourton and Failand, Fl. Bristol.

T. PRATENSE, L., var. parviflorum, Bab.

9. Oxlease near Hambrook (Miss Roper, 1906): "head stalked, calyx teeth longer than the corolla," Fl. Bristol.

### T. MEDIUM, L.

2. Stogumber.

3. Near Kingston. 4. Staple Common.

8. Shapwick peat moor, Fl. Bristol.

9. Portishead Wood (Miss Peck); near Walton-by-Clevedon, and above Walton-in-Gordano; under Crook's Peak on the Winscombe side, Fl. Bristol.

10. Lane near Crox Top, Bishopsworth; between Pensford

and Queen Charlton, Fl. Bristol,

T. SQUAMOSUM, L. (maritimum, Huds.)

2. Stolford. There is a specimen gathered by Collins, 1835, at Shurton Bars, in Herb. Clark (H. S. Thompson).

8. Sea-banks by the Parret, Huntspill (D. Fry), Fl. Bristol.

9. Portishead (Mrs. Gregory and Miss Livett); Uphill! (Mrs. Gregory and A. E. Burr), Fl. Bristol. [Destroyed] at Yarley, near Wells].

T. ARVENSE, L.

2. Coast near Porlock (Mr. H. Slater tells me that it extends at intervals from there to Watchet).

9. Sands between Weston-super-Mare and Uphill! (Herb.

Flower), Fl. Bristol.

10. Brislington (J. Foster in Swete), Fl. Bristol.

T. STRIATUM, L.

2. Porlock Weir, etc. Dunster.

3. West Monkton; frequent.

9. Plentiful on Barrow Hill at 560 feet; coast between Portishead and Clevedon; slopes of Mendip above Ebbor, Draycott [to above 800 feet!], etc.; Uphill!; Brean Down!, Fl. Bristol.

10. Very abundant on dry railway-banks between Keynsham and Brislington, and between Brislington and Whit-

church, Fl. Bristol.

T. SCABRUM, L.

2. Minehead Warren. Coast near Williton and at Steart.

5. Stawell, H. Slater, sp.

8. Burnham (D. Fry), Fl. Bristol.

9. Above Ebbor, Fl. Bristol. Uphill. Draycott, at 400 feet. 10. Between Keynsham and Brislington; Hampton Down (Miss Peck), Fl. Bristol.

T. GLOMERATUM, L.

2. Grassy bank in Dunster Park, 1912; not seen on Minehead Warren

- Rocky pasture on the glebe, West Monkton; also on the western slopes of Beacon Top, half-a-mile eastward.
- T. SUFFOCATUM, L.
  - Near the entrance to Minehead Warren; locally plentiful. Noted at Lilstock by the Rev. J. C. Collins, Fl. Bristol.
  - Destroyed at Weston-super-Mare by building, soon after Mr. Flower discovered it there, Ft. Bristol.
- T. HYBRIDUM. L.
  - Roadside near Gotton, West Monkton. Among rushes on Holme Moor, between Wiveliscombe and Bathealton; remote from cultivation, 1910.
  - 9. Tickenham Hill, Fl. Bristol.
  - Brislington; Stockwood; Pensford; Duncorn Hill; Keynsham, Saltford, Stanton Drew, and Norton Malreward (D. Fry), Fl. Bristol.

Var. elegans (Savi).

- By Uphill Ferry (Mrs. Gregory); Winscombe and Nailsea (Miss Livett), Fl. Bristol.
- T. REPENS, L., var. rubescens, Seringe (Townsendii, Bab.). 9. Clevedon (W. E. Green), Fl. Bristol.
- T. FRAGIFERUM, L.
  - 3. Combwich.
  - 4. Staple Fitzpaine.
  - 8. Huntspill.
  - 9. Kewstoke Bay; Woodspring; Uphill!, Fl. Bristol.
  - Ashton Fields, near Rownham; Chewton Keynsham and Maes Knoll (Miss Roper); Newton St. Loe; by the Yeo near Phipps' Bridge (D. Fry), Fl. Bristol.
- [T. RESUPINATUM, L. has occurred as a casual at Portishead, and near Bristol and Bath].
- T. FILIFORME, L.

2. Porlock Weir,

- 3. Near Nailsborne, W. Watson. West Monkton. Thurloxton.
- 9. Above Weston-in-Gordano, Fl. Bristol. Brean Down.
- 10. Mells Churchyard (Miss Roper), Fl. Bristol

### ANTHYLLIS, L.

A. VULNERARIA, L.

4. South of Langport, W. Watson.

5. High Ham, W. Watson.

8. Seat Hill, near Bruton, W. Watson.

9. Tickenham; Portishead (formerly); Winterhead, Sideot, and Shipham; Worle Hill; Milton; Bleadon Hill, Fl. Bristol.

10. Providence Place and Ashton Tump; Ursleigh Hill near Pensford; Failand, etc.; Whitehurch, Fl. Bristol.

### LOTUS, L.

L. CORNICULATUS, L., var. crassifolius, Pers.

8. Sand-hills, Burnham !, Fl. Bristol.

9. Dolebury (Mrs. Gregory); sand-hills, Brean and Berrow, Fl. Bristol.

I do not think this more than a state, due to exposure or sea-breezes.

Var. villosus, Seringe.

9. Portishead (Miss Roper); Clevedon (S. T. Dunn); Brean

Down (Mrs. Gregory), Fl. Bristol.

Have we the true plant? Mr. Arthur Bennett would not pass some W. Sussex coast-specimens which I sent him, so named.

L. TENUIS, Waldst & Kit.

3. Near Combwich.

5. Compton Dundon.

9. Walton-in-Gordano (D. Fry); by the Yeo between Compton Martin and Ubley (C. E. Salmon), Fl. Bristol.

10. Combe Hay, Fl. Bristol.

L. ULIGINOSUS, Schkuhr (major, Scop.) grows in dis. 6.

### ASTRAGALUS, L.

A. GLYCYPHYLLOS, L.

5. Aller.

10. Between Easton-in-Gordano and the Channel; about Failand (Miss Agnes Fry and D. Williams); by a canal at Twerton; riverside at Bath, and coppice at Old Ford, between Frome and Beckington (D. Fry); near Norton St. Philip (A. E. Burr); Egford, near Frome (Miss Livett), Fl. Bristol.

[CORONILLA VARIA, L.

8. Established for many years on walls around the Bishop's Palace at Wells (Miss Livett), Fl. Bristol.

9. By the sidings in Portishead Station-yard, 1904-8, Fl. Bristol.

10. Embankment of a new road near Ashton Gate, 1906; refuse-heap near St. Anne's, Brislington, 1906-7, Fl. Bristol.1

### ORNITHOPUS, L.

O PERPUSILLUS, L.

- 2. Grabhurst Hill, Dunster, H. Slater. Minehead Warren. Coast near Porlock.
- 3. West Monkton: scarce.

### HIPPOCREPIS, L.

H. COMOSA, L.

5. Mr. H. Slater, after much searching, has failed to find it in the Ford station given on the authority of Collins.

8. Creech Hill, near Bruton, and Shepton Montague, W. Watson. Dulcote Hill, near Wells, Fl. Bristol.

- 9. Above Weston-in-Gordano; Uphill! (Mrs. Gregory);
  Axbridge, etc., Fl. Bristol. Ascends to 850 feet, above Draycott.
- 10. Lansdown: Fortnight; Combe Hay; South Stoke; Hampton Down, Fl. Bristol.

# ONOBRYCHIS, Hill.

O. VICIAEFOLIA, Scop. (sativa, Lam.).

5. On Ball Hill, Stawell, in an old field which the 'oldest inhabitant' does not recollect to have been other than pasture, on the southern slope, H. Slater.

Tickenham Hill; Loxton; Sandford Hill; Brockley; Congresbury, Fl. Bristol.

10. Railway banks near Keynsham and Newton St. Loe, Fl. Bristol.

### VICIA, L.

V. HIRSUTA, Gray.

1. Between East Anstev and Brushford.

2. Williton. Dunster. Shore near Porlock.

3. West Monkton; Maunsel, etc.

8. Wells, Fl. Bristol.

- 9. Kenn; here and there along the Cheddar Valley Railway; Wookey; Steep Holm, Fl. Bristol. Between Worle and Kewstoke.
- 10. Between Brislington and Keynsham; Saltford; Pill, Fl. Bristol.

V. TETRASPERMA, Moench (gemella, Crantz).

2. Stogumber. Allerford.

3. Orchard Portman; Trull; Kingston, W. Watson. West Monkton.

5. Chedzoy, H. S. Thompson.

S. Mark Moor (Mrs. Sandwith), Fl. Bristol.

 Very abundant by the railway at Sandford and Banwell Station; Brean Down, Fl. Bristol.

 Bishopsworth (J. F. Hopkins); Brislington and Stanton Drew (D. Fry); Ursleigh Hill, in plenty, Fl. Bristol.

V. GRACILIS, Lois.

Roadside between Carhampton and Blue Anchor, H. Slater. Bushy beach near Stolford; scarce and stunted, but Mr. C. E. Salmon, with whom I gathered it, found that the hilum was right.

8. Between Bawdrip and Cossington, H. S. Thompson.

9. [Formerly in a lane on Yarley Hill, near Wells (Miss

Livett); but now destroyed, Fl. Bristol.]

 Still on Barrow Hill (between Twerton and Englishcombe, D. Fry, 1886); cornfield near Keynsham (T. B. Flower, 1871, in Herb. Watson); near Midford, in several summers (A. E. Burr), Fl. Bristol.

V. OROBUS, DC.

 Between Stoke St. Michael and Coleford, two or three miles up stream from Mells, 1902 (Miss C. E. Horner, in Murray's annotated copy of Fl. Som.), Fl. Bristol.

V. SYLVATICA, L.

 Roadside, Langridge (between Luxborough and Roadwater); Watchet, H. Slater. This plant extends a good way beyond Greenaleigh on coast rocks, where it becomes dwarf and prostrate.

 Wood near Flax Bourton Station; Limeridge Wood, Tickenham; still in Compton Martin Wood, 1911; old pack-horse lane between Shuteshelve and Winscombe (H. S. Thompson); Cheddar Wood!, Fl. Bristol.

 Easton-in-Gordano (D. Williams); Whitchurch and Bishopsworth (Swete, Fl.); near Stanton Wick, and woods towards Clutton and Markbury; Leigh-on-Mendip, and Brass Knocker Wood (D. Fry); hedges about Chewton Mendip, Litton, and East Harptree (Miss Roper); wood on Fortnight Farm; Smokhall Wood near Bath (Scientific Tourist, 1818), Fl. Bristol. V. SEPIUM, L, subvar. alba, Rouy (flowers pure white).

10. Bank on Burledge Hill above North Widcombe, between Stowey and Nine Elms; lane at Weston near Bath (D. Fry), Fl. Bristol.

#### V. LUTEA, L.

9. Portishead Station-yard, 1900 to 1907, Fl. Bristol.

10. Casual near Twerton (S. T. Dunn, 1897), Fl. Bristol.
In June, 1912, Mrs. K. Coleman, of Stratton-onFosse Rectory, sent me fresh specimens gathered in a
hay-field at Holcombe, where it had grown, to her
knowledge, for the last five years. These were partly
typical; the rest were described by her as having mauve
and white flowers, but dried a pale lilac with violet
veins, and may be the subvariety violascens, Rouy
("corolle violacée ou rougeâtre"). Doubtfully native;
a small alien Lathyrus, unknown to me, bearing beautiful orange flowers, grew with them.

[V. HYBRIDA, L.

The only specimen from Glastonbury in Herb. Clark was gathered in 1832.

9. Portishead Station sidings, 1894, Fl. Bristol.

 Casual in a field of mowing-grass on the Leigh Court estate (J. H. Fryer, 1888), Fl. Bristol.]

[V. SATIVA, L.

9. Mr. Druce writes that he gathered the subspecies obovata, Gaud. on Steep Holm, May 26th, 1909.]

### V. ANGUSTIFOLIA, L.

1. Between East Anstey and Brushford. Winsford.

2. Stogumber. Williton. Washford. Minehead. Porlock Beach, etc.

3. Hatch Beauchamp! W. Watson. Thurloxton. West Monkton. Kingston.

8. Puriton.

9. Steep Holm, G. C. Druce. Brean Down. Uphill.

Too common and generally distributed in the Bristol area to need special citation.

Var. Bobartii (Forster), Koch.

"Frequent on dry sandy soil, such as that about the pennant quarries of the neighbourhood." Fl. Bristol. I have not yet noticed it in S. Somerset.

V. LATHYROIDES, L.

9 Brean Down (Dr. St. Brody; also Mrs. Gregory); Steep Holm (John Storrie); sand-hills below Berrow Church!, FL Bristol.

V. BITHYNICA, L.

Steep railway banks on the Lias, west of Washford Station; plentiful in some years.

3. Wiveliscombe, L. A. M. Riley, sp.

9. Easton (Miss M. Mayow); casual near the corn-mill by Portishead Station, 1900 (Mrs. Gregory); still there in 1907 and 1909; bank of the Yeo reservoir, Butcombe (H. Fisher), Fl. Bristol.

 By the road from Publow to Queen Charlton; Ursleigh Hill towards Pensford (D. Fry); near Chewton Keyn-

sham, Fl. Bristol.

Var. angustifolia, Syme.

2. Between Williton and St. Audries, Dr. C. R. Killick, sp. Exactly like the figure in English Botany, ed. 3.

### LATHYRUS, L.

L. APHACA, L.

3. Norton Fitzwarren, W. Watson.

(5). Mr. H. S. Thompson points out that Bawdrip is in dis. 8; he has found it between that place and Cossington.

9. In a field near the Lodge at Ashcombe, Weston-super-Mare (Mrs. Gregory, 1904); by the hedge of a field above Uphill Station, near the railway cutting, in fair quantity, and sparingly in a lane beyond the high bridge (Mrs. Gregory and D. Fry)—"there is nothing in the surroundings of the spot to suggest introduction"; casual in a quarry between Congresbury and Yatton (Mrs. Foord-Kelcey), Fl. Bristol.

 Casual at St. Anne's, Brislington (Miss Edmonds, 1907); cornfield, Rush Hill, Bath (Herb. Flower, 1858); Glasshouse Farm on Odd Down, and in two or three spots near Bathford (Mrs. Dent Young); a large patch on the Limpley Stoke Road near Bath, known there for a long period (Miss C. L. Peck); casual at Twerton (S. T.

Dunn, 1897), Fl. Bristol.

L. NISSOLIA, L.

- Cliff at Kilve, H. S. Thompson. Bushy beach near Stolford.
- 3. Taunton; Creech St. Michael; North Curry, W. Watson.

4. Curland, W. Watson.

- 9. Salt-marsh by the railway east of Portishead Dock; by the coast path near the Nore at Portishead (Misses Cundall); on both sides of a green lane from Clapton to the Portishead road; Brean Down (Mrs. Gregory). Fl. Bristol.
- 10. Between Easton-in-Gordano and the Channel; railway cutting, east of Fox's Wood Quarries; Great Western and Midland railway cuttings near Saltford (D. Fry). Fl. Bristol.

L. LATIFOLIUS, L.

4. Railway bank by Hatch Station; in good quantity, but

of course only an escape.

8. "Mr. Thomas Clark . . . was not mistaken when he wrote in the Phytologist, IV, p. 1136, that the everlasting pea had been established twenty years on Ivythorne Hill near Glastonbury, as he enclosed a specimen with his letter. The plant grew, he said, in one spot only." Fl. Bristol. There is a specimen in Herb. Clark. 1853 (H. S. Thompson)].

[L. TUBEROSUS, L. An alien, which may be persistent.

9. Near Chelvey, away from any dwelling-house or garden,

very sparingly (Cecil H. Sp. Perceval, 1893).

10. In plenty on a hedge-bank at West Town (C. Bucknall, 1896)—"this did not last"; railway embankment west of Keynsham Station, 1907; amongst brambles in the overgrown hedge of an old pasture on Wick-house Farm, south of the high road from Bristol to Bath: quite an out-of-the-way spot, where it may have thriven a long while (shown to Mr. D. Fry by a lady who found it in 1901; growing up to five or six feet, and flourishing in 1904-6-7, but not maturing any seed), Fl. Bristol.

L. SYLVESTRIS. L.

2. Shingly beach between Porlock Weir and Hurlstone Point !, C. E: Salmon. Between St. Audries and Kilve.

3. Rock Hill, above Wrantage, W. B. Butler and W. Watson.

Wood near Hatch Beauchamp.

9. Noticed by Dillenius (1726) in hedges by the roadside at Backwell; between Winscombe and Banwell; upland lane near Axbridge, Fl. Bristol.

10. Easton-in-Gordano (D. Williams); near Tucking Mills, Compton Dando (D. Fry); on Fortnight Farm, Fl. Bristol. Midsomer Norton, A. A. Thatcher.

L. PALUSTRIS, L.

8. "Near Edington a remarkably broad-leaved form of

this species occurs, which seems to bear the same relation to the type that var. latifolia of Vicia bithynica does to the var. angustifolia of that vetch. While leaflets in the type are linear-elliptical mucronate, varying in width from \( \frac{1}{8} \) to \( \frac{3}{8} \) inch, those of the broad-leaved form have a much blunter outline and are fully \( \frac{1}{2} \) inch wide." \( -D. \) Fry, Fl. Bristol.

L. MONTANUS, Bernh. (macrorrhizus, Wimm.).

2. Badgworthy Valley, W. Watson.

3. Broomfield, W. Watson.

4. Staple Common.

6. Buckland St. Mary.

9). High ground towards Backwell and Brockley Combe;

Tickenham Hill; Cadbury Camp, Fl. Bristol.

 Dundry (Miss Roper); about Pensford, Stanton Drew and Norton Hautville; Clutton; Temple Cloud; the Harptrees, Fl. Bristol.

Var. tenuifolius (Roth), Druce.

2. Plentiful in the woodlands between Porlock Weir and Culbone; but shading off into the type, as usual.

### ROSACEAE.

# PRUNUS, L.

P. SPINOSA, L., var. macrocarpa, Wallr. (P. fruticans, Weihe).

10. Barrow Gurney; Lansdown, Fl. Bristol.

Mr. White thinks that it must be fairly frequent in N. Somerset; sloes brought in for sale by country folk are sometimes mixed with a good proportion of the larger fruits.

P. INSITITIA, L.

8. Wells (Miss Livett), Fl. Bristol.

9. Yatton (Miss Winter), Fl. Bristol. Near Bleadon.

 Kewstoke (Rev. W. H. Painter); Kelston (J. G. Baker), Fl. Bristol,

P. Domestica, L.

8. "In a remote part of the Burnham marsh-lands near Middle Burnham, at a distance from cultivation, there are a number of trees. Fruit from these was forwarded to Mr. J. G. Baker, who thought it intermediate between that of institutia and domestica." (D. Fry), Fl. Bristol. 9. "Portishead. Many trees—some of large size—grow along the low cliff on the coast between Woodhill Bay and the Black Nore, while others form a loose hedge at the Nore. The Rev. Augustin Ley saw these in 1905. He thought they might indeed be native, for it would be difficult to suppose that they had been introduced in so great a number." Fl Bristol.

10. "Several trees, producing fine fruit, have been shown to me by Mr. David Fry in some ancient hedgerows on Ashton Hill, near Corston. The trees are very old, and the ground is rough pasture on the Lias, high above

the village." Fl. Bristol.

Mr. White, who has disregarded single trees or bushes, as being probably always of garden origin, remarks that in the above stations the species appears as wild as the hawthorns and maples with which it is associated; he and Mr. Fry agreed in considering these as satisfactory examples of native *P. domestica*. On the evidence given, there is good ground for their conclusion.

P. AVIUM, L.

9. Weston-in-Gordano, Fl. Bristol. Near Bleadon.

10. Failand, Fl. Bristol.

P. Cerasus, L.

2. Wood above Bossington.

3. Wood near Hatch Beauchamp.

I think this very likely indigenous. Its apparent absence from the north of the county is surprising.

### SPIRAEA, L.

S. Ulmaria, L.

2. With double flowers at Withycombe, H. Slater.

Var. denudata, Boenn.

9. Walton-in-Gordano (F. Samson), Fl. Bristol.

10. Bank of the Dundas aqueduct on the Wilts boundary (Miss Roper), Fl. Bristol.

S. FILIPENDULA, L.

 Church Hill, Clevedon (Miss Livett); Wavering Down!, above Cross; Crook's Peak! (C. Bucknall), Fl. Bristol. Bleadon Hill. Purn Hill.

### RUBUS, L.

R. IDAEUS, L.

3. Near Wiveliscombe.

6. Between Castle Neroche and West Buckland.

Var. obtusifolius (Willd.).

- Rev. W. Moyle Rogers has seen specimens from the Bonniton Station in Herb. Shrewsbury (Bloxum) and Herb. Mason.
- R. SCI, CATUS, Vest.
  10. One clump in Lord's Wood, Houndstreet, Fl. Bristol.

R. PLICATUS, Weihe & Nees.

1. Between East Anstey and Brushford. King's Brompton.

R. oracus, Focke.

8. "The dominant bramble of the Burtle and Glastonbury Moors," Fl. Bristol. It seems to me quite distinct enough from R. nitidus to rank as a full species; and Mr. White treats it as such.

R. AFFINIS, Weihe & Nees.

8. Plentiful on the peat moors of Aller, Ashcott, Burtle, Edington, Shapwick, and Westhay, Fl. Bristol (amplifying the record in Fl. Som.).

Var. Briggsianus, Rogers.

8. Burtle Moor, A. Ley, 1910 (Rogers in litt.).

R. IMBRICATUS, Hort.

 On Quantock, in plenty, between Holford and Dodington (D. Fry and J. W. White), Fl. Bristol.

 A small clump on Broadfield Down, between Brockley and Wrington (C. Bucknall), Fl. Bristol.

R. CARPINIFOLIUS, Weihe & Nees.

- North side of Cothelstone Hill, below the Beacon; typical, I think.
- R. LINDLEIANUS, Lees.

3. Quarry above West Monkton.

R. ARGENTEUS, Weihe & Nees (erythrinus, Genevier).

1. Venn Cross, L. A. M. Riley (Rogers in litt.). Very plentiful about East Anstey and Brushford. Skilgate.

2. Bossington.

3. Wiveliscombe. West Monkton, etc.

 Lord's Wood, Houndstreet, C. Bucknall (Rogers in litt.).
 Failand Hill; Fox's Hill; quarries and lanes bordering the Asylum grounds, Fl. Bristol.

the Asylum grounds, Fl. Bristol.

"A hybrid, probably × rusticanus, grows on a slope of Failand above the Tan-pit stream (C. Bucknall)." Fl. Bristol.

- R. RHAMNIFOLIUS, Weihe & Nees.
  - 1. King's Brompton.

2. Near Minehead.

3. Cothelstone.

8. Milton Clevedon.

- 9. Chelvey Batch; old lanes about Shipham and Sidcot, Fl. Bristol.
- 10. Beggar's Bush Lane; St. Anne's Park, Brislington; Failand plateau; Ursleigh Hill near Pensford; Stoke Lane near Edford; Chewton Mendip (R. V. Sherring); Vobster, Fl. Bristol.

R. NEMORALIS, P. J. Muell., var. silurum, Ley.

8. Mr. Rogers writes (1913) that he and Mr. Ley finally agreed in so naming the peatmoor plant referred to in Fl. Som., pp. 102, 414.

R. DUMNONIENSIS, Bab.

8. Shapwick, A. Ley, 1910 (Rogers in litt.).

R. PULCHERRIMUS, Neuman.

4. Staple Common. Chard.

6. Between Castle Neroche and Buckland St. Mary.

8. On the southern peat moors, Fl. Bristol.

9. Under Backwell Hill; Wraxall; on the hill at Westonsuper-Mare, Fl. Bristol.

10. St. Anne's, Brislington; Queen Charlton; Lord's Wood, Houndstreet; Compton Dando; Downside Common; Eaker Hill Wood, Chewton Mendip (Miss Roper), Fl. Bristol.

R. Selmeri, Lindeberg.

"It is to Selmeri, probably, that most (or all) of the 'villicaulis' localities in Fl. Som. should go." Rogers in litt., 1913. He definitely so names the following:-

3. Blackdown Hills.

6. Chard Common.

7. Penpits.

8. Shapwick (A. Ley, 1910). I saw a good deal of R. Selmeri. just like the Scottish plant, near Shapwick and Ashcott Stations, September, 1913.

[R. LEUCANDRUS, Focke.6. Chard Common. "Not leucandrus, but my mollissimus," Rogers in litt., 1913.]

R. THYRSOIDEUS, Wimm.

Native. Hedges; very rare. July, August.

9. Walton-by-Clevedon, beyond Ladye Bay (W. E. Green);

near Congresbury (T. R. A. Briggs and D. Fry), Fl. Bristol.

10. Kenn (W. E. Green), Fl. Bristol.

R. Godroni, Lecoq & Lamolte (argentatus, P. J. Muell.).

3. West Monkton (teste Rogers).

10. Lord's Wood, Houndstreet, Fl. Bristol.

R. PUBESCENS, Weihe.

- 10. Hedge near the lake at Houndstreet (D. Fry), Fl. Bristol.
- R. MACROPHYLLUS, Weihe & Nees (type). 10. Failand (C. Bucknall), Fl. Bristol.
- R. HIRTIFOLIUS, Muell. & Wirtg., var. mollissimus (Rogers).
  6. Chard Common, R. P. Murray (as leucandrus; see above).
- R. PYRAMIDALIS, Kalt.
  - Porlock Weir, C. E. Salmon; Bonniton, Coleman in Herb. Mason (Rogers in litt.).

9. Above the quarry on Backwell Hill, Fl. Bristol.

- Leigh Wood (Rev. A. Ley); Compton Dando, lane skirting Lord's Wood, Hound street, and near Hallatrow (D. Fry), Fl. Bristol.
- R. LEUCOSTACHYS, Sm.

1. Between East Anstey and Brushford. Upton. Skilgate.

2. Porlock Weir, C. E. Salmon.

3. Wiveliscombe.

 Backwell Hill and Bourton Combe; Limeridge Wood, Tickenham; woods above Yatton, Cleeve, and Wrington; Banwell Hill; Worlebury Wood; about Shipham

and Tining Farm, Fl. Bristol.

- Ashton Court Woods; about Abbotsleigh and Failand;
   Brislington; the Houndstreet Woods; Temple Cloud;
   Downside Common and near Edford; Vobster; Cranmore; common about Radstock and Frome (Rev. R. P. Murray), Fl. Bristol.
- R. LEUCOSTACHYS × RUSTICANUS. 10. Leigh Wood, Fl. Bristol.

R. LASIOCLADOS, Focke, var. angustifolius, Rogers.

3. Roadside above West Monkton Church (teste Rogers).
Mr. Rogers now inclines to think that both type and variety are due to crossing between R. rusticanus and R. leucostachys.

R. CRINIGER, Linton.

Native. Bushy places; very rare. July to September.2. Roadside near Oare, 1894, R. P. Murray (teste Rogers).

R. GELERTH, Frider.

Native. Woods; very rare. July, August. 10. Leigh Wood (Rev. A. Ley), Fl. Bristol.

R. ANGLOSAXONICUS, Gelert.

- Roadside bank, Naish Hill, Clapton-in-Gordano (a variety or form between type and var. raduloides, teste Rogers), Fl. Bristol.
- 10. Lane and roadside near Failand, Fl. Bristol.

Var. raduloides, Rogers.

- Worle Hill (J. W. White), Rogers. Sparingly on the Congresbury side of King's Wood; Norton's Lane, Clevedon, Fl. Bristol.
- Lord's Wood, Houndstreet, plentiful in two or three places at Stanton Drew, and near Stanton Wick (D. Fry); lane leading from Pensford to Upper Stanton; near Chew Magna; Temple Cloud, Fl. Bristol.
- R. INFESTUS, Weihe.
  - 10. Downside Common near Edford (D. Fry), Fl. Bristol.
- R. Borreri, Bell-Salter, var. dentatifolius, Briggs. 9. Sandhills near Berrow!, Fl. Bristol.
- R. Drejeri, G. Jensen.

1. Frequent about Brushford, and thence to East Anstey.

Mr. Rogers writes that the Dunster plant is "type; very strong."

 Kingston (L. A. M. Riley, teste Rogers). West Monkton. Bathealton.

8. On the Burtle peat moor (H. S. Thompson), Fl. Bristol.

Subsp. Leyanus, Rogers.

- 8. Peat moor, Shapwick, H. S. Thompson, 1889 (Rogers in litt.).
- 9. Worle Wood, A. Ley, 1902 (Rogers in litt.).
- R. ECHINATUS, Lindley.

9. On the Congresbury side of King's Wood, Fl. Bristol.

- 10. Failand Hill; Ursleigh Hill, near Publow and Woollard, and Stanton Drew (D. Fry); Compton Dando; plentiful about the woods between Hallatrow and High Littleton, and between Hallatrow and Hinton Blewett; Downside Common, Edford; Gurney Slade, in Crox Bottom and Slade Bottom, Fl. Bristol.
- R. OIGOCLADOS, Muell. & Lefv.

3. Blackdown Hills, R. P. Murray (Rogers in litt.).

Var. Blocamianus, Rogers.

3. Quantoeks, R. P. Murray (Rogers in litt.). This may refer to the station between Kingston and Broomfield in Fl. Som., p. 416.

 Lane between Longbottom Farm and Axbridge, under the north face of Shuteshelve Hill (J. W. White, 1908),

Ft. Bristol.

R. Babingtonii, Bell-Salter.

2. Quantocks, Alfoxton (J. W. White), Rogers.

 Abundant over a space of rough bushy ground on the skirt of King's Wood, towards Congresbury, Fl. Bristol.

R. ERICETORUM, Lefv.

Native. Moorlands, woods, etc.; rare. July, August. I. Between East Anstey and Brushford (teste Rogers).

9. Worle Wood, A. Ley (Rogers in litt.).

10. Leigh Wood (Rev. A. Ley), Fl. Bristol.

Var. cuneatus, Rogers & Ley.

- Minehead, A. Ley, 1906; "probably this" (Rogers in litt.).
- 8. Shapwick Bog, A. Ley (Rogers in litt.).

R. BLOXAMII, Lees.

Native. Bushy places, etc.; very rare. July, August. "Penridge, 1892, R. P. Murray," Rogers in litt. I do not know in which district this may be.

R. SCABER, Weihe & Nees.

1. Between East Anstey and Brushford (teste Rogers).

 Between Hallatrow and High Littleton (C. Bucknall);
 between the Suspension Bridge and Rownham Ferry (Rev. A. Ley), Fl. Bristol.

R. ROSACEUS, Weihe & Nees.

1. Exton.

5. Compton Dundon (teste Rogers).

Var. hystrix (Weihe & Nees).

9. Near Congresbury, J. W. White (Rogers in litt., 1913).

Subsp. infecundus, Rogers.

9. Worlebury Hill, Fl. Bristol.

10. Leigh Woods; Failand, Fl. Bristol.

R. ADORNATUS, P. J. Muell.

10. Leigh Wood (Rev. A. Ley), Fl. Bristol.

R. HOSTILIS, Muell. & Wirtg.

Native. Woodlands, very rare. July to September.

3. Cockercombe, in quantity by the streamlet, 1911; named by Mr. Rogers, who had previously received it from the Quantocks, gathered by Mr. H. S. Thompson.

R. Koehleri, Weihe & Nees, var. cognatus (N. E. Brown).

2. By the brook at Bossington, 1908 (teste Rogers); shadegrown and rather weak.

R. DASYPHYLLUS, Rogers (pallidus, Bab., non Wh. & N.).

1. Winsford.

2. Near Minehead.

3. West Monkton, plentiful on the hills. 9. Banwell Hill, Fl. Bristol.

10. St. Anne's Wood, and in a wood on the steep between Conham Ferry and Brislington; Downside Common near Edford, Fl. Bristol.

R. VIRIDIS, Kalt.

Native. Woodlands; very rare. June to August.

10. Plentiful in Highbury Wood near Hallatrow (C. Bucknall, 1899); named by the Rev. W. Moyle Rogers, Fl. Bristol.

R. KALTENBACHII, Metsch.

- 9. On the edge of paths and clearings throughout the woodland from Rhodyate Hill to Cleeve, in abundance, Fl. Bristol.
- 10. Leigh Wood, in several places; near Compton Dando, and abundant in woods near the lake at Houndstreet (D. Fry), Fl. Bristol.

R. ACUTIFRONS, Ley.

- 7. In Journ. Bot., 1902, p. 70, Rev. A. Ley wrote that the plant found near Pen Selwood was a form connecting his new variety amplifrons with the type.
- R. DUMETORUM, Weihe & Nees, var. raduliformis, Ley.

9. Cheddar!, A. Ley.

R. CORYLIFOLIUS, Sm. (sublustris, Lees).

2. Bossington.

3. Durston. Milverton.

5. Abundant about Somerton (Mr. Baker's record was for the aggregate). Chedzoy. Weston Zoyland.

8. Milton Clevedon.

9. Backwell Hill; Banwell; Shipham, Fl. Bristol.

 Pensford, Houndstreet (D. Fry); Emberrow (Miss Roper); Downside Common near Edford; Gurney Slade, Fl. Bristol.

Var. cyclophyllus (Lindeb.) (conjungens, Bab.).

2. Washford. Coast near Dunster.

4. Chard.

8. Meare, Fl. Bristol.
9. Loxton, Fl. Bristol.

10. Between Stockwood and Whitehurch, Fl. Bristol.

R. CORYLIFOLIUS X RUSTICANUS.

3. Milverton.

 Border of King's Wood between Yatton and Congresbury (D. Fry, fide W. M. Rogers), Fl. Bristol.

R. CAESIUS X RUSTICANUS.

Near Stanton Prior, D. Fry in Journ. Bot., 1897, p. 124.
 Abundant for a long distance on both sides of a lane near Keynsham (D. Fry), Fl. Bristol.

#### GEUM, L.

G. RIVALE, L.

1. Exton. Winsford.

 Near Bridgwater, W. Watson. Park Wood, Milverton, E. G. Aldridge and W. Watson. Slape Moor, between Wiveliscombe and Milverton.

9. Compton Martin Wood and Stratford Lane (Dr. Gough),

Fl. Bristol.

- Saltford (C. Withers); between Sutton Wick and the Blue Bowl; Edford (Miss Livett and C. Bucknall); between Hallatrow and Hinton Blewett, Fl. Bristol.
- G. RIVALE × URBANUM (G. intermedium, Ehrh.).
   1. In two places near Winsford.

### FRAGARIA, L.

F. MOSCHATA, Duchesne (elatior, Ehrh.).

9. Court Hill, Clevedon (Mrs. Lainson), Fl. Bristol.

### POTENTILLA, L.

- [P. RECTA, L. has occurred as an escape in districts 8, 9, 10; and P. NORVEGICA, L. in 9, 10, as a casual (Fl. Bristol).]
- P. VERNA, L.8. Pen Hill, Wells (Miss M. Mayow), Fl. Bristol.

 Backwell Down; Barrow Hill; Wraxall; Tyntesfield Park (C. Bucknall); Crook's Peak (H. S. Thompson); between Cheddar and Axbridge!; Sidcot, Fl. Bristol.

Bourton Combe; path under Leigh Woods; Failand;
 Belmont Hill (Misses Cundall); above Portbury, Fl.

Bristol.

P. ERECTA, Hampe (silvestris, Neck.; Tormentilla, Nestl.), var.

sciaphila, Zimmeter.

- "Whole plant smaller and more compact; radical leaves small and nearly orbicular, of three or four broadly wedge-shaped leaflets."
  - 9. Rough, peaty pasture near Walton in-Gordano (Miss Roper, 1911), Fl. Bristol.
- P. ERECTA × PROCUMBENS (P. suberecta, Zimmeter).

1. Skilgate. Near East Anstey.

2. Dunster, A. Ley, sp.

- 8. Walton Moor; Aller Moor; Edington, Shapwick!, and Ashcott Moors, Fl. Bristol.
- P. ERECTA × REPTANS (P. italica, Lehm.).

2. Selworthy, W. Watson.

- 4. I believe that this occurred with the parents on a hedgebank just below Castle Neroche, May, 1913; but it was too young for certainty.
- P. PROCUMBENS, Sibth.
  - 1. Between East Anstey and Brushford. Upton. Skilgate.

3. Cothelstone Hill.

 Frequent on Shapwick! and Ashcott peat moors, Fl. Bristol.

9. Plentiful on Brean Down (Mrs. Gregory), Fl. Bristol.

- 10. Pasture near Compton Dando (D. Fry), Fl. Bristol.
- P. PROCUMBENS × REPTANS (P. mixta, Nolte). 8. Near Ashcott Station, Fl. Bristol.

[P. ARGENTEA, L.

9. Plentiful for some years on a grassy place by railway sidings at Portishead, J. W. White, sp., 1912. The leaflets are very narrow and deeply cut; it is the var. tenuiloba (Jord.), I believe.

10. Casual near Englishcombe (Miss Roper), Fl. Bristol.]

### ALCHEMILLA, L.

A. VULGARIS, L. (aggregate).

6. Chard Common, W. D. Miller.

8. Wells! (Miss Livett), Fl. Bristol.

 Markham Bottom; near Portbury Church (Miss Lucas); wood between Portbury and Clapton (C. Wall); near Nailsea; near Flax Bonrton Station; Yew Tree Farm, Cleeve; Max Valley near Winscombe; Blagdon, Fl. Bristol.

Easton-in-Gordano (Miss Roper); Failand Hill (D. Fry);
 between Barrow Gurney and Flax Bourton; about
 Hallatrow and Hinton Blewett; Litton, Chewton
 Mendip, etc.; the Harptrees; Wells Park and Gurney
 Slade (Miss Roper); Whatley (Rev. S. Laing), Fl.
 Som.

A. MINOR, Huds. (A. filicaulis, Buser, subsp. vestita, Buser). Apparently the usual, if not the only Somerset plant; but A. pratensis, Schmidt may also occur. The nearly glabrous A. alpestris, Schmidt, which is, practically, the Linnean species (though Harald Lindberg states that this included the closely allied A. acutidens, Buser), grows in one E. Sussex station, but is chiefly northern. The following localities are at present identified:—

1. Locally plentiful in meadows between East Anstey and

Brushford.

3. Meadows near Wiveliscombe.

 I believe that I found this near Wells, about thirty years ago.

 Hill pastures above Cheddar Wood, C. E. Moss. Charterhouse; Compton Martin, Fl. Bristol.

10. Stantonbury Hill, Fl. Bristol.

## AGRIMONIA, L.

A. EUPATORIUM, L.

9. Unusually large plants, found in 1913 by Miss Perceval at Walton-by-Clevedon (Miss Livett in litt.), may be the var. sepium, Brébisson, Fl. Normandie, p. 110 (1869), which Mr. Arthur Bennett suspects to be the same as var. umbrosa, Coss. and Germ., Fl. des Environs de Paris, p. 182 (1845). This resembles A. odorata in habit; but the leaves are scentless, and the fruit-spines are not recurved.

A. ODORATA, Miller.

Native. Banks, etc.; extremely rare. July to September.
Rev. R. P. Murray wrote to me some years ago that he had identified a plant gathered by him near Minehead as this species.

## POTERIUM, L.

P. SANGUISORBA, L.

- Common on the Lias about Williton, St. Audries, and Kilve.
- 3. On the Lias at West Hatch, Wrantage, etc.

4. On the Lias, Staple Fitzpaine.

P. POLYGAMUM, Waldst. & Kit. (muricatum, Spach).

 Neglected pasture, Walton-in-Gordano (D. Fry, 1887), Fl. Bristol.

## ROSA, L.

R. SPINOSISSIMA, L.

- Still at Weston-super-Mare in 1895 (Mrs. Gregory); one bush on Cadbury Camp, and one in Canon's Wood, Weston-in-Gordano (Miss Livett), Fl. Bristol.
- R. TOMENTOSA, Sm. (aggregate).

Staple Fitzpaine.
 Compton Dundon.

- Between Catcott and Shapwick (Herb. Clark, 1844), Fl. Bristol.
- Downside Common, Edford (C. Bucknall), Fl. Bristol.
   Var. Sherardi (Davies) (R. subglobosa, Sm.).

2. Minehead!, A. H. Wolley-Dod.

Var. scabriuscula (Sm.).

- Minehead!, A. H. Wolley-Dod.
   Wells (Miss Livett), Fl. Bristol.
- 10. Pensford (C. Bucknall), Fl. Bristol.

R. EGLANTERIA, L. (rubiginosa, L.).

3. Cannington Park, 1830, and Wick Hill, near Langport, 1829, Herb. Clark (H. S. Thompson).

5. Hill, east of Compton Dundon.

9. Cadbury Camp (Mrs. Gregory), Fl. Bristol.

10. Whatley Combe (H. F. Parsons), Fl. Bristol.

R. MICRANTHA, Sm.

- Between Dunster and Timberscombe. Blue Anchor. Williton. St. Audries.
- 3. Stoke St. Mary. Near Wiveliscombe.

5. Somerton.

 Chelvey Batch, with aciculate fruit; Canon's Wood; Winscombe (Miss Roper), Fl. Bristol.

Var. permixta (Déséglise). A slight variety, more prickly, with more glabrous leaflets and smoother fruit.

2. Minchead !, A. H. Wolley-Dod (named by Prof. Dingler).

9. Cadbury Camp, Ft. Bristol (named by Major Wolley-Dod).

Var. hystrix (Léman).

9. Cheddar (Miss Roper, 1907), Fl. Bristol.

R. AGRESTIS, Savi (sepium, Thuill.).

- Between Somerton and Compton Dundon; one bush, with small leaves and narrowly ovoid fruit, which Major Wolley-Dod refers to the type, previously unknown in Somerset.
- 9 Three bushes, on the southern slope of Cadbury Camp (Miss Livett)—a form tending towards R. inodora, Fr., in Major Wolley-Dod's opinion; Clevedon (Mrs. Lainson), Fl. Bristol.

Mr. Baker's specimen at Kew from Brean Down seems to Major Wolley-Dod intermediate between R. sepium

and R. Borreri.

Var. belnensis (Ozanon).

- On limestone at Uphill; one bush (named by Prof. Dingler). "Its leading features are its more hairy leaflets, often hairy above, very pubescent petioles, and rather large subglobose or broadly ovoid fruit" (Wolley-Dod in Journ. Bot. Supp., 1910, p. 128).
- R. OBTUSIFOLIA, *Desv.* I believe that this must stand as the type of the species; it was earlier described than *R. Borreri*, Woods, and has simply-serrate, eglandular foliage.

3. Between Cothelstone and Kingston. Coombe, West

Monkton.

9. Near Weston-super-Mare (W. F. Miller, fide Rogers), Fl. Bristol.

Var. tomentella (Léman).

9. Weston-super-Mare (Mrs. Gregory); with glandular peduncles, probably Dumortier's decipiens, Fl. Bristol.

Var. arvatica (Baker).

- 9. Hedge between Yatton and Cleeve, Fl. Bristol.
- 10. Between Knowle and Brislington, Fl. Bristol.

## R. CANINA, L.

Var. senticosa (Ach.).

2. Minehead!, A. H. Wolley-Dod.

Var. sphaerica (Gren.).

 Leigh Wood, near the Police Station (C. Bucknall), Fl. Bristol. Var. andegavensis (Bast.).

10. Roadside on Smitham Hill, East Harptree, Fl. Bristol.

Var. verticillacantha (Mérat).

9. Hutton (Mrs. Gregory), Fl. Bristol.

Var. aspernata (Déséglise).

3. Stoke St. Mary.

9. Sidcot (Mrs. Gregory); Weston-super-Mare (Woods). Fl. Bristol.

Var. vinacea, Baker.

9. Locking Road, Weston-super-Mare (Mrs. Gregory), Fl. Bristol.

R. DUMETORUM, Thuill.

- 3. Near Bridgwater, 1830, Herb. Clark (type, H. S. Thompson).
- 9. Portbury (C. Bucknall); Portishead (Mrs. Gregory); Burrington Combe, Fl. Bristol.
- 10. Bourton Combe: canal bank, Radford (C. Bucknall). Fl. Bristol.

Var. collina (Jacq.).

- 10. Lane between Whitchurch and Woollard; Potter's Hill above Barrow Gurney, Fl. Bristol. Mr. White, however, has doubts about the occurrence of the true plant. 'Kosinciana' of Fl. Som. seems to be the same thing: Besser's species is not British.
- R. GLAUCA Vill., (a) Reuteri (Godet), with (b) Crépiniana (Désé-

9. Abundant in the wood at Weston-super-Mare (Mrs.

Gregory, fide Baker), Fl. Bristol.

If the type or Baker's subcristata really occurs, the presence of such decidedly northern forms is exceptional.

R. stylosa, Desv., var. systyla (Bast.).
I do not find this "plentiful almost everywhere," as is stated in Fl. Som.; it seems to be scarce in the south-west. Mr. White gives a long list of stations.

Var. pseudo-rusticana, Crépin.

10. Boggy field under Lansdown (Miss Roper), Fl. Bristol.

R. ARVENSIS. Huds.

Mr. Watson believes that he has gathered the var. scabra, Baker (a slight modification) at High Ham, dis. 5.

### PYRUS, L.

P. TORMINALIS, Ehrh.

3. Kingston. Stoke St. Mary.

- 9. Backwell Hill; Portishead Wood; Weston Big Wood, FL. Bristol.
- 10. Abbotsleigh (D. Williams); near Mells, perhaps planted (Rev. S. Laing), Fl. Bristol.

P. LATHFOLIA, Syme, var. decipiens, N. E. Brown.

10. Rev. A. Ley found four or five additional plants in Leigh Woods, 1901, and considered them to be much nearer to the type than is the Minehead form.

P. ARIA, Ehrh.

- 9. Backwell Hill; Brockley; Cleeve; Tickenham Hill; Portishead; Worle Hill!, etc., Fl. Bristol.
- 10. Leigh-on-Mendip; Hampton Rocks and Combe Hay (A. E. Burr), Fl. Bristol.

Var. incisa, Reichb.

9. Cheddar Gorge (Rev. A. Ley), Fl. Bristol. Rocks above the Kewstoke Road, Weston-super-Mare.

P. RUPICOLA, Syme (as subspecies).

2. Culbone Cliffs, C. E. Salmon. I saw a fine tree in the woods between Porlock Weir and Culbone Church, 1907. It seems to be Hedlund's Sorbus salicifolia, or very near that.

P. INTERMEDIA, auct. angl.

9. Cheddar Gorge! (Rev. A. Ley), Fl. Bristol.

The true P. intermedia of Ehrhart is apparently identical with P. scandica. Ascherson. Hedlund considers our plant, so called, to be a British subspecies of Sorbus Mougeoti, Soyer-Willemet & Godron, which he proposes to name anglica.

P. AUCUPARIA, Ehrh.

9. Brockley Combe; Cheddar Gorge, Fl. Bristol.

- 10. Esker Hill Wood near Chewton Mendip (Miss Roper); Downhead (Miss Livett), Fl. Bristol.
- P. COMMUNIS, L. Usually occurs as single trees.

- Weston-in-Gordano, Fl. Bristol.
   Belmont Hill; Hartcliff Rocks near Winford, Fl. Bristol.
- P. Malus, L., a. sylvestris, L. (P. acerba, DC.).

3. Hedgerow, West Monkton.

9. Nailsea Moor; Portishead Wood, Fl. Bristol.

10. Between Barrow Gurney and Dundry; Hallatrow (C. Bucknall); Lansdown, Fl. Bristol.

Var. mitis, Wallr.

1. Near East Anstev.

2. Blue Anchor.

5. Aller.

6. Chard.

9. Near Nailsea Moor; about Portishead and Weston-in-

Gordano, Fl. Bristol.

10. Between Brislington and Keynsham; about Keynsham and Pensford; between Stanton Drew and Norton Malreward, Fl. Bristol.

## MESPILUS, L.

M. GERMANICA, L.

9. Near Yatton, W. Watson. Reported from near Weston-

in-Gordano, Fl. Bristol.

I follow Messrs. Murray and White in retaining this Linnean genus: Sorbus also has strong claims, being very unlike restricted Pyrus.

# CRATAEGUS, L.

C. OXYACANTHA, L. (oxyacanthoides, Thuill.).

Native. Very rare. May, June.

9. Two trees on Tickenham Moor (Miss Livett, 1909), Fl. Bristol.

Frequent in east and south-east England; very scarce elsewhere.

C. Monogyna, Jacq., var. splendens, Druce.

9. One tree on the low cliff towards Walton-in-Clevedon (Miss Livett); another in the wild woodland of Chelvey Batch, Fl. Bristol. Confirmed by Mr. G. C. Druce. Fruit much larger than in the type; there does not seem to be any other obvious difference.

[COTONEASTER MICROPHYLLA, Wallich. A bird-sown alien.

9. Mr. S. T. Dunn (Alien Flora) says that a Brean Down specimen was received at Kew, 1892. Strawberry Hill, Clevedon; Roman encampment, Weston-super-Mare; in two places at Wraxall; Tickenham Hill, Fl. Bristol.

10. Leigh Woods (F. Samson)—but may prove to be C.

Simonsii; Hampton Rocks near Bath (Miss Peck); lane at Fortnight, Fl. Bristol.]

### SAXIFRAGACEAE.

### SAXIFRAGA, L.

- S. TRIDACTYLITES, L. ascends to 700 feet on Mendip, above Draycott.
- S. GRANULATA, L.
  10. A small quantity by the canal at Combe Hay (A. E.
  Burr), Fl. Bristol.
- S. HYPSOIDES, L.

9. A large patch on Court Hill, Clevedon (S. J. Coley); "very unlikely to be native," Fl. Bristol.

## CHRYSOSPLENIUM, L.

C. OPPOSITIFOLIUM, L.

2. Will's Neck, W. B. Butler. Withycombe, H. Slater.

Porlock Weir. Culbone.

3. Feltham, near Corfe, W. B. Butler. Pitminster. Kingston. Broomfield, West Monkton. Milverton, Miss Falcon.

6. Near Chard.

9. Burrington Combe; Long Wood, Fl. Bristol.

 Brislington; between Pensford and Publow (Miss Roper), Fl. Bristol.

C. ALTERNIFOLIUM, L.

1. By the Barle above Dulverton, H. S. Thompson.

2. Withycombe Combe, H. Slater.

3. Milverton, Miss Falcon. 8. Bruton, W. Watson.

9. Between Wrington and Langford, Fl. Bristol.

 Horrington Bottom and Murdercombe (D. Fry); Langridge Bottom under Lansdown (Miss Roper); Ham's Bottom, Fl. Bristol.

### RIBES, L.

R. RUBRUM, L.

3. Copse, West Bower, 1849, Herb. Clark (H. S. Thompson).

 Walton-by-Clevedon (D. Fry); Wrington and Langford, Fl. Bristol.

10. Damp ravine, Leigh Wood; Beggar's Bush Lane; Maes Knoll (Miss Roper); about Saltford; Chewton Mendip; between Bath and Wellow (Dr. Burder); by the Cam Brook, Dunkerton; woodland by the stream in Stoke Lane Valley (Miss Livett), Fl. Bristol. R. NIGRUM, L.

1. By the Exe at Winsford.

9. Walton-in-Gordano (D. Fry); West Hill, Wraxall, Fl. Bristol.

10. Pool between Abbotsleigh and Failand (Mrs. Sandwith): below Dundry Hill (Herb. Cundall); Saltford; stream near Edford; between Hallatrow and Farrington Gurney (Misses Cundall); streamside near Great Elm (Miss Roper); St. Catherine's Valley, Bath (Herb. Flower), Fl. Bristol.

#### CRASSULACEAE.

## SEDUM, L.

S. TELEPHIUM, L.

7. Pen Pits, Pen Selwood, on greensand, C. E. Moss.

8. Croscombe (Miss Roper), Fl. Bristol.

9. Quarry between Yatton and Congresbury (Mrs. Foord-Kelcey); Easton (Miss Livett), Fl. Bristol.

10. Masbury (two places, A. E. Burr and R. V. Sherring); Railford Wood near Whatley (Rev. S. Laing), Fl. Bristol.

S. PURPUREUM, Tausch (Fabaria, Koch.).

Native. Rocky slopes; very rare. July, August.
3. Rough banks by a lane above Cherry Grove, West Monkton, 1913, W. D. Miller, sp.

10. In two bushy places between Keynsham and Brislington (D. Fry and J. W. White), Fl. Bristol. Witham Friary, C. E. Moss.

I have grown this for the last eight years, and quite agree with Mr. White in separating it from S. Telephium; the foliage and inflorescence are very distinct.

S. ALBUM, L.

9. Bourton; Yatton; Congresbury; Rowberrow (D. Fry); on walls and rock at Blagdon (Miss Livett); common on cottage garden walls at foot of northern slopes of the Mendip Hills (Dr. C. E. Moss), Fl. Bristol.

10. Keynsham; Clutton; Belmont Hill (Miss Roper); in several spots at Mells; Nunney, on a hillside where rock protrudes (Rev. S. Laing), Fl. Bristol.

S. DASYPHYLLUM, L.

9. Wall near Portishead Church (Miss Roper); on rock at Stone-edge Batch (Miss Livett); wall at Walton-in-Gordano (D. Fry); Weston-in-Gordano, Fl. Bristol.

- 10. "On rock and a rubble wall adjoining, by the G.W.R. about a mile north-west of Keynsham. It is impossible to say whether the plant here originated on the rock or has spread from the wall." Fl. Bristol.
- S. ANGLICUM, L. 2. Oure; Badgworthy; Horner, W. Watson. All along the coast between Porlock Weir and Minchead.
  - S. ACRE, L. Professor Graebner, of Berlin, considers the British plant to be a distinct species, and has named it S. Drucei (described in the Botanical Exchange Club Report for 1912, pp. 161-2). Mr. G. C. Druce remarks:—"This species, beyond doubt, is related to S. acre, but would seem to be different in all its parts. The lax habit of the plant often hanging down in long trails, and the laxer and more flabby peduncles at once attract attention . . . . It is at once distinguished from S. acre by the loosely placed, narrow, divergent leaves, which call to mind S. boloniense." He records it from 9. Uphill.
  - [S. ALBESCENS, Haworth. "I found this plant near Oare, but almost certainly in Devon," W. Watson in litt. It should be searched for on the Somerset side].

S. RUPESTRE, L. (S. elegans, Lejeune).

2. "Cliff near Porlock Weir," C. E. Salmon (named a. majus, Syme, by Rev. E. F. Linton; but see remarks, below).

 Ebbor Rocks; Worlebury Camp, Weston-super-Mare (Miss Roper), Fl. Bristol. Plentiful on a roadside wall near Winscombe.

Var. minus, Syme.

2. Culbone Cliffs, C. E. Salmon (teste E. F. Linton).

 Plentiful on rock between two quarries on Worle Hill, 1906; certainly native, Fl. Bristol.

S. FORSTERIANUM, Sm.

2. The type grows in considerable quantity on damp rocks in the woods between Porlock Weir and Culbone Church, nearer to the latter; it is very constant in cultivation, though somewhat enlarged. The query in Fl. Som. does not refer to the Porlock Weir locality, but to its specific or subspecific rank.

Var. glaucescens, Watson.

 In 1905 Rev. Augustin Ley and I carefully examined the hillside plant between Minehead and Greenaleigh, recorded in Fl. Som. as 'S. rupestre,' and decided that it was not that species. It exactly resembles the figure in English Botany, and keeps distinct from the Cheddar S. rupestre, majus, in my garden; though it looks somewhat intermediate, owing to its glaucous hue, between that and type—Forsterianum. On the cliffs below it is abundant for a good distance, and very fine. I also refer to this the Porlock Weir form; and it grows on the coast near Culbone. I have seen nothing thereabouts which I could call S. rupestre, majus. Mr. Linton probably saw dried specimens, which are difficult to determine accurately.

#### DROSERACEAE.

## DROSERA, L.

D. ROTUNDIFOLIA, L.

- Frequent between East Anstey and Brushford; Mr. W. Watson also records it from Exmoor in this district, where it is doubtless not uncommon.
- 2. Selworthy, C. E. Salmon. Oare, H. S. Burnell-Jones, sp.

3. Moors near Wiveliscombe and Milverton.

6. Near Castle Neroche, towards Buckland St. Mary.

- 9. Locally common: in boggy spring-heads and like spots on the Mendip moorland, Fl. Bristol.
- D. LONGIFOLIA, L. (intermedia, Drev. & Hayne).

Forma subcaulescens (D. intermedia, var. subcaulescens, Melvill).

 On the peat of Shapwick Moor (Miss Roper, 1907), Fl. Bristol. Merely a state due to situation, I believe.

The absence of hybrids between this species and *D. rotundifolia* seems strange. On September 25th, 1913, I found them growing together near Ashcott Station, the former bearing many full capsules, whereas the latter had long shed its seed; this may give a hint as to the reason.

## HALORAGACEAE.

### HIPPURIS, L.

H. VULGARIS, L.

 Middlezoy, W. Watson. Plentiful in rhines about Weston Zoyland,  Nailsen Moor; Tickenham Moor; below Weston-in-Gordano; Claverham; Yeo Reservoir (C. E. Salmon), Ft. Bristol.

## MYRIOPHYLLUM, L.

M. VERTICHLEATUM, L.

3. North Curry, W. Watson.

 Walton Valley below Weston-in-Gordano; Nailsea Moor; Tiekenham Moor, Fl. Bristol.

10. Canal at Camerton, Fl. Bristol.

M. SPICATUM, L.

2. Minehead. Stolford.

5. Weston Zoyland.

8. Between Brent Knoll and Berrow; Highbridge!, Fl. Bristol.

9. Artificial pond in the Prince Consort Gardens, Westonsuper-Mare; Cheddar Valley, Fl. Bristol. Near Uphill.

10. "Very plentiful in brackish ditches inside the sea-bank between Portbury and the Avon mouth, where I have seen it flowering profusely in November"; ponds in Prior Park, Bath, Fl. Bristol.

M. ALTERNIFLORUM, DC.

1. Plentiful in the Exe, Barle, and Haddeo. King's Brompton.

2. Badgworthy Water, W. Watson.

4. Chard Reservoir.

 Tickenham Moor; between Portbury and Portishead; below Weston-in-Gordano, Fl. Bristol.

### CALLITRICHE, L.

C. VERNALIS, Kuetz. (the names C. palustris, L. and C. verna, L. are too uncertain).

2. Near Exford, W. Watson, sp.

C. INTERMEDIA, Hoffm. (hamulata, Kuetz.).

1. Near Dulverton Station.

2. Porlock Weir.

 West Monkton. Creech St. Michael. Northmoor. West Sedgmoor.

5. Pitney. Chedzoy. In the Cary near Somerton.

8. Ditch near Shapwick Station.

 Between Tickenham and Wraxall (C. Bucknall); below Draycott, Fl. Bristol. Pool north of Berrow Church. Bleadon. C. OBTUSANGULA, Le Gall.

Badgworthy, W. Watson. Stolford. Steart.
 Taunton, W. Watson. Northmoor.

5. Chedzov. Weston Zovland.

8. Cole, W. Watson. Plentiful in pools on the peat moor, near Ashcott and Shapwick, 1913; also in ditches about Meare.

Kenn Moor; pool among the sandhills near Berrow Church, Fl. Bristol. Uphill. Ditch below Brean Down.

10. Between Portbury and Portishead; plentiful in the disused canal at Paulton and Midford, Fl. Bristol. Mr. Murray noted in his copy of Fl. Som. that Nyman's Bristol record was a mistake.

C. TRUNCATA, Guss.

Probably native, though as yet found only in artificial stations.

Very rare. June to August.

3. Frequent in the Bridgwater and Taunton Canal between Bathpool and Durston; especially fine and plentiful near Charlton, October 1912, Prof. Hugo Glück and E. Foster Marshall, sp.

4. North and east sides of Chard Reservoir, September,

1907; scarce.

# LYTHRACEAE.

### PEPLIS, L.

P. PORTULA, L.

1. Near King's Brompton.

2. Oareford; Horner Water, C. E. Salmon. Selworthy, W. Watson. · Danesborough, H. Corder.

9. Peaty pools near the summit of Blackdown on Mendip,

Fl. Bristol.

### LYTHRUM, L.

L. SALICARIA, L.

1. By the Barle, close to Dulverton Station.

2. Washford. Kilve.

3. Taunton!, W. Watson. North Curry. Milverton.

5. Othery. Weston Zoyland.

8. Peat moors !, Fl. Bristol.

- Max meadows near Winscombe; abundant throughout the marsh-lands from the Mendips to the Channel, Fl. Bristol.
- By the Avon under Leigh Woods, and in many spots on the riverbank above Bristol from Brislington to Twerton, as well as in other damp places on that side of the Avon Valley, Ft. Bristol.
- [L. HYSSOPIFOLIA, L., can hardly be accepted as a native, on the evidence given in Fl. Som.]

#### ONAGRACEAE.

### EPILOBIUM, L.

E. ANGUSTIFOLIUM, L.

1. Between Brushford and Exton.

- 2. A large patch close to Dunster Station!, C. E. Salmon.
- Broomfield. Corfe.
   Somerton Wood.

 Woods in the Wrington Valley; Worle; Shipham; frequent in the hill country north of Wells! (Miss Livett), Fl. Bristol.

 Near Abbotsleigh; railway bank between Whitchurch and Pensford; Clutton; woods between Chewton Mendip, Litton, and Hinton Blewett; Paul Wood near Temple Cloud (Miss Roper), Fl. Bristol.

E. HIRSUTUM, L.

I cannot regard the var. subglabrum, Koch, recorded from Failand and Dunkerton by Mr. White, as more than a slight form, or state; it is ignored in Haussknecht's Monograph.

E. PARVIFLORUM X ROSEUM.

9. Westbury Combe (Rev. A. Ley, 1895), Fl. Bristol.

E. MONTANUM X OBSCURUM.

3. Roadside near Hestercombe.

 Quarry rubble by the Avon near Brislington (D. Fry), Fl. Bristol.

E. MONTANUM X PARVIFLORUM.

3. Trull, W. Watson.

5. Copley Wood, near Somerton.

E. MONTANUM X ROSEUM.

10. In Mr. D. Fry's Corston garden, Fl. Bristol.

E. LANCEOLATUM, Seb. & Maur.

3. Near West Monkton Church, 1904 to date; associated with E. montanum, but no hybrids have been observed.

8. Wells, 1906, S. H. Bickham.

10. Bank in Sandy Lane, near Abbotsleigh, and in a quarry near Hallatrow (C. Bucknall), Fl. Bristol,

E. ROSEUM, Schreb.

2. Alcombe!, H. W. Pugsley. Near Cleeve Abbey, Washford.

8. Frequent by the old canal near Ashcott Station.

9. About a farmstead between Draycott and Rodney Stoke (C. Bucknall); common at Compton Martin (C. E.

Salmon), Fl. Bristol.

10. New Cut (Miss Atwood); Compton Dando, Woollard, and riverside, Bath (D. Fry); Stanton Wick; near Temple Cloud; near Hallatrow (C. Bucknall), Fl. Bristol.

E. TETRAGONUM, Curt. (adnatum, Grisebach).

2. Holford Combe, 1849, Herb. Clark (H. S. Thompson).

3. Bathpool.

- 8. Between Wedmore and Mudgley, Fl. Bristol. 9. Clevedon (D. Fry), Fl. Bristol. Bleadon.
- 10. Iron-works and spoil heaps near Ashton Gate; Brislington, Queen Charlton, and Whitchurch (D. Fry); between Publow and Woollard; cinder heaps, Twerton (S. T. Dunn), Fl. Bristol.

E. LAMYI, F. Schultz.

- 1. Roadside near Dulverton.
- 10. Near Bath (Herb. Burr, 1895), Fl. Bristol.

E. LAMYI X LANCEOLATUM.

- 10. Quarry rubble by the Avon near Brislington (D. Fry), Fl. Bristol.
- E. LAMYI × MONTANUM.
  - 10. A garden weed at Corston (D. Fry), Fl. Bristol.

E. OBSCURUM X TETRAGONUM.

10. Brislington, and in the garden at Corston (D. Fry), Fl. Bristol.

E. PALUSTRE. L.

1. Common about East Anstey and Brushford. Near King's Brompton.

9. Borders of pools by the railway between Yatton and Clevedon, Fl. Bristol. Berrow Marsh.

### OENOTHERA, L.

(). RIENNIS, L. (aggregate).

2. Waste ground near Dunster Station.
9. Near Clapton (Miss Roper), Fl. Bristol.

Abbotsleigh (E. F. Young); near Pill (Mrs. Sandwith);
 abundant on railway banks by Bedminster Station (J. F. Hopkins); Failand (Miss Roper), Fl. Bristol.

The Berrow and Burnham sandhill plant, which I have also seen plentifully on the coast near Burry Port and Kidwelly, Cardiganshire, has been identified as his O. ammophila by Dr. W. O. Focke. The specimen of O. biennis in the Linnean Herbarium is a mere scrap, with much smaller petals.

O. ODORATA, Jacq.

- 8. Now locally plentiful at Burnham, as is stated by Mr. White.
- Brean Down, 1869 or 1870, E. Cleminshaw (H. S. Thompson in Journ. Bot., 1905, p. 235). It seems to be now lost there, and at Uphill and Weston-super-Mare.

#### CUCURBITACEAE.

# BRYONIA, L.

3. Staplegrove, W. Watson.

8. Bruton, W. Watson.

 Flax Bourton; Nailsea; Wraxall; Walton-in-Gordano; Loxton and Bleadon (Mrs. Gregory); "on some of the higher slopes on Mendip, where no bushes are, it trails over stones in the open," Fl. Bristol.

10. Brislington; Whitchurch; Twerton; Duncorn Hill,

Fl. Bristol.

## UMBELLIFERAE.

### HYDROCOTYLE, L.

H. VULGARIS, L.

 Between East Anstey and Brushford, Near King's Brompton. Exmoor, W. Watson. Probably general.

3. Near Maunsel.

4. Staple Common. Chard Reservoir.

6. Between Castle Neroche and Buckland St. Mary.

 Clapton Moor; Nailsea; Kenn, and throughout the lowlands as far as Weston-super-Mare! and Uphill; Berrow Marsh!, Fl. Bristol.

[ASTRANTIA MAJOR, L. Base of a wall near Failand, about 1888 (A. E. G. Way); still there in 1908, Fl. Bristol.]

### ERYNGIUM, L.

E. MARITIMUM, L.

Stolford. Steart Island, 1824, Herb. Clark (H. S. Thompson).

### SMYRNIUM, L.

S. OLUSATRUM, L.

2. Hedge near Minehead. Bossington. Porlock. On inaccessible cliffs between Watchet and Blue Anchor.

5. Aller.

 Wraxall; Weston-in-Gordano (D. Fry); Milton, near Kewstoke, and Winscombe (Mrs. Gregory); hedge between Axbridge and Cross, Fl. Bristol. Roadside near Bleadon.

Clearly a denizen in most of its stations; but I think that it may be really wild on sea-cliffs in districts 2 and 9.

## BUPLEURUM, L.

B. ROTUNDIFOLIUM, L.

3. Cornfield on Haines Hill, Taunton, 1913, W. S. Denton.

 Portishead Station-yard, 1903 to 1907; garden weed at Ashcombe near Weston-super-Mare, 1903 (Mrs. Gregory), Fl. Bristol.

B. TENUISSIMUM, L.

2. Stolford.

3. Combwich.

9. Salt-marsh, Uphill!, Fl. Bristol.

# TRINIA, Hoffm.

T. GLAUCA, Reichb. fil. (glaberrima, Hoffm.; vulgaris, DC.).

9. Wavering Down!; Crook's Peak, above Compton Bishop! (H. S. Thompson), Fl. Bristol.

### APIUM, L.

A. GRAVEOLENS, L.

2. Stolford. Steart.

3. Durston.

- 9. Generally all through the marshes of the "levels," Fl. Bristol.
- 10. Bank of Avon at St. Anne's, Rownham and Pill St. George; ditches near Ashton Gate, Fl. Bristol.

A. NODIFLORUM, Reichb. fil.

Var. pseudo-repens, Watson (the 'repens' of Fl. Som.).
9. Berrow Marsh! (Mrs. Gregory); boggy rill under Blackdown towards Rowberrow, Fl. Bristol.

A. INUNDATUM, Reichb. fil.

5. Ditch near Weston Zoyland.

8. Between Edington Drove and Shapwick; ditch southeast of Shapwick Station!, Fl. Bristol (it also grows nearer to Ashcott Station!).

### CARUM, L.

[C. Petroselinum, Benth. & Hook. fil.

2. Bossington.

- 9. Nailsea; Sidcot; Cheddar; between Wookey and Ebbor, Fl. Bristol.
- C. SEGETUM, Benth. & Hook. fil. (Petroselinum segetum, Koch).

2. Dunster. Stolford.

3. Ditch-banks between Steart and Combwich.

5. Pitney, on the Lias.

9. Roadside bank near Tickenham; Kewstoke Bay; in several spots about Uphill, Fl. Bristol.

10. Between Brislington and Keynsham; Saltford; Compton Dando, Fl. Bristol.

[C. CARVI, L.

10. Old quarry ground near Twerton, 1903 (Miss Martin) Fl. Bristol.

# SISON, L.

S. AMOMUM, L.

1. King's Brompton.

2. Porlock. Bossington. Watchet. Kilve.

3. Bridgwater. North Petherton. North Newton. West Monkton. Milverton.

- Weston Zoyland. Somerton, etc. Charlton Mackrell. Aller.
- 8. Bruton, W. Watson. Wells! (Miss Livett), Fl. Bristol. Highbridge. Huntspill.
- 9. Yatton; Wick St. Lawrence; between Worle and Woodspring Priory; Kewstoke Bay, Fl. Bristol. Bleadon.

# SIUM, L.

S. LATIFOLIUM, L.

5. Weston Zoyland.

- Clapton and Weston-in-Gordano Moors; between Cheddar and Wedmore, Fl. Bristol.
- S. ERECTUM, Huds. (angustifolium, L.).
  - 3. North Newton, W. Watson.
  - 4. Chard Reservoir.

8. Wells, Fl. Bristol.

- Nailsea, etc. ("ditches throughout the marshlands"), Fl. Bristol.
- 10. Bedminster Meads; east of Keynsham, Fl. Bristol.

## AEGOPODIUM, L.

A. Podagraria, L.

1. Brushford.

9. Sandford; Flax Bourton, Fl. Bristol.

- 10. Abbotsleigh; Sandy Lane; Failand; Bishopsworth; Pensford; Norton Malreward; Norton Hautville; Publow; Stanton Drew, Stanton Wick, Chew Stoke, and Stowey (D. Fry); Barrow Hill, near Clutton ("here unusually remote from dwellings"); Farrington Gurney; Hinton Blewett, etc., Fl. Bristol.
- [Myrrhis odorata, Scop. occurs by a streamlet above Culbone Church (dis. 2); higher up I found Saxifraga umbrosa, L. Both appear to be old escapes.]

# ANTHRISCUS, Bernh.

A. VULGARIS, Bernh.

3. Bridgwater, H. Corder.

8. Roadside close to Highbridge Station, Fl. Bristol.

 Field at Uphill, abundant (Mrs. Gregory); Brean Down; waste ground, Portishead, Fl. Bristol.

[A. CEREFOLIUM, Hoffm.

 Plentiful on a bank close to Banwell Castle, 1902-4 (Mrs. Gregory), Fl. Bristol.

 Roadside bank at Whitchurch, 1899 (C. Bucknall); but soon afterwards lost, Fl. Bristol.

### FOENICULUM, Hill.

F. VULGARE, Miller (officinale, All.).

9. Railway and Station-yard, Portishead; Tickenham Hill; Wraxall, Fl. Bristol.

## OENANTHE, L.

O. PIMPINELLOIDES, L.

3. Frequent in Taunton neighbourhood!, W. Watson. Common about Bridgwater and Durleigh, H. S. Thompson. Combwich. West Monkton, etc.

4. Frequent about Crewkerne, W. Watson.

- 5. Stawell, in plenty, H. Slater. Aller. Somerton. Compton Dundon.
- 10, Between Chewton Keynsham and Compton Dando; near Ursleigh Hill and Publow, Fl. Bristol.

O. LACHENALII, C. Gmel.

3 (and 5). Frequently found on the alluvial plain on both sides of the tidal Parret, near Bridgwater, H. S. Thompson. Between Steart and Combwich. Perry Green, Wembdon, Herb. Clark (H. S. Thompson).

4. Chard Reservoir.

- 8. Burnham, W. Watson.
- 9. Kewstoke Bay, Fl. Bristol. 10. Nempnett, C. E. Salmon.
- O. AQUATICA, Poir. (O. Phellandrium, Lam.).

3. West Sedgmoor.

- 5. Abundant about Chedzoy and Weston Zoyland. Dunball.
- 8. Ditches at Huntspill, Highbridge, and Burnham, H. S. Thompson.
- 9. Walton Moor; Kenn Moor; about Worle Station!, Fl. Bristol. Near Uphill.
- (Heracleum Sphondylium, L., var. angustifolium, Huds. is recorded in Fl. Bristol from 9. Sandford; 10. Long Ashton, Combe Hay, and Mells.)
- (DAUCUS GUMMIFER, All. Mr. White has not met with any local plant that he could place here; nor have I seen it on our other coasts. The southern and south-eastern D. gummifer is very distinct, and maintains its character under cultivation.)

### CAUCALIS, L.

C. DAUCOIDES, L

- On corn-mill refuse, Portishead Station-yard, 1902-7, Fl. Bristol.
- 10. Casual at Twerton, 1897 (S. T. Dunn), Fl. Bristol.]

C. ARVENSIS, Huds.

2. Washford.

 Mill refuse, Portishead (Misses Hill and Peacock), Fl. Bristol.

C. NODOSA, Scop.

2. Bossington. Minehead. Williton. Stolford.

3. Staplegrove; Boroughbridge, W. Watson. Near Kingston.

5. Dunball.

- Portishead; coast near Woodspring; Worle Hill, Fl. Bristol. Bleadon.
- 10. Knowle; Whitchurch; Keynsham (D. Fry); Bath (S. T. Dunn); Hampton Down (Miss Peck), Fl. Bristol.

#### CAPRIFOLIACEAE.

## ADOXA, L.

A. Moschatellina, L.

1. Dulverton.

2. Withycombe and all round; plentiful, H. Slater.

3. Combe Florey, Mrs. Chamberlain, sp. Corfe. Broomfield.

5. Stawell Wood, in plenty, H. Slater.

### SAMBUCUS, L.

S. EBULUS, L.

3. East side of Pickeridge, Corfe, W. D. Miller. Orchard Portman, W. Watson. Hedge, Badger Street.

9. Compton Bishop (W. E. Green), Fl. Bristol.

[10. Eradicated, since 1908, from a lane between Portbury and Upper Failand, Fl. Bristol.]

## VIBURNUM, L.

V. OPULUS, L.

1. Brushford. Exton.

3. Trull; Pitminster, W. Watson, Kingston, West Monkton, Stoke St. Mary. West of Langport.

4. Below Castle Neroche.

5. High Ham, W. Watson. Pitney. Near Kingweston.

 Yatton; Kenn; Clevedon; Wrington Valley; Max meadows below Winscombe, Fl. Bristol.

 Long Ashton; between Yanley Lane and Barrow Gurney; Stanton Drew and Clutton (D. Fry); Radstock; Mells, Fl. Bristol.

V. LANTANA, L.

- Mr. II, Slater finds plenty in the wood overhanging Blue Anchor; a slight extension westward. Not quite restricted to calcareous soils.
- [Symphoricarpos racemosus, Michaux. Not very uncommon as a hedgerow plant, I think, though usually in small quantity; but Mr. White mentions that between Whitchurch and Woollard there are pasture hedges consisting entirely of this shrub for 500 yards or more, and that it has formed a great thicket by the stream in the Oakford Valley, St. Catherine's, Bath.]

#### RUBIACEAE.

## RUBIA, L.

R. PEREGRINA, L.

1. Williton. Stogumber. Washford.

3. Curry Rivel. Thurlbear. Corfe. West Monkton.

5. Stawell; rare, H. Slater. Aller. Pitney. Somerton.

Kingweston.

9. Flax Bourton; abundant along the coast-line from Portishead to Walton and Clevedon; the Walton Valley; Cadbury Camp; Backwell Hill; Wraxall; Yatton; head of the Wrington Valley; Barley Wood; in the wood at Weston-super-Mare!, and on the Kewstoke side also!; Pen Knowle, Wookey (Miss Livett), Fl. Bristol. Steep Holm, G. C. Druce.

10. Nempnett, B. B. Gough. Bourton Combe, Fl. Bristol.

### GALIUM, L.

G. CRUCIATA, Scop.

1. By the Exe at Exton, W. D. Miller.

2. Bossington. Culbone.

3. Corfe; Orchard Portman, W. Watson. Cothelstone.

9. Chelvey Batch and Brockwell Hill; coast path between Portishead and Clevedon (H. J. Wadlow); Brockley

and Claverham, Fl. Bristol.

10. Sandy Lane; plentiful between Brislington and Keynsham; Avon bank above Saltford; Compton Dando; about Chew Magna and Dundry Hill; abundant at Mells, Great Elm and Buckland Dinham, Fl. Bristol.

G. VERUM, L. 8, 9. "The dwarf, branched form of our seaside sand-dunes often corresponds to the var. maritimum, DC.=var. littorale, Brébisson." Fl. Bristol.

G. ERECTUM, Huds.

2. Abundant in a pasture on the Lias just north of the railway, a short half-mile east of Washford Station; in full flower on June 9th, 1908 and 1912.

3. Grass-field by the railway near Staplegrove, in good

quantity, June 9th, 1912; perhaps introduced.

- 10. In a rough pasture at Dunkerton, June, 1906 (Miss Livett), Fl. Bristol. The old record for pastures under Claverton Down is quite likely to be correct, though Mr. Murray doubted it.
- G. Mollugo, L.

Var. insubricum (Gaud.)

9. Weston-super-Mare (Mrs. Gregory, 1893); Burrington Combe (C. Bucknall), Fl. Bristol.

Var. Bakeri, Syme.

2. Bossington. Dunster, A. Ley and S. H. Bickham, sp

3. West Monkton.

- 10. By the roadside towards the top of Cheddar Gorge. This approaches G. erectum in its narrow leaves, and regularly flowers a full fortnight, earlier than the type, at West Monkton.
- G. Mollugo × verum.
  - 10. Belmont Hill, Failand (Miss Roper); Beggar's Bush Lane (C. Bucknall), Fl. Bristol.

G. SAXATILE, L.

8. "Very rare, or absent, in the Bruton Oolite district." C. E. Moss in litt.

G. ASPERUM, Schreb. (umbellatum, Lam.; sylvestre, Poll.).

9. Between Shipham and Rowberrow, Fl. Bristol. Rocks above Draycott (700 to 850 feet), and on limestone outcrops between there and the head of Cheddar Gorge.

### G. PALUSTRE, L.

Var. lanceolatum, Ucchtritz (var. elongatum, Syme; non (l. clongatum, Presl).

3. Abundant in rhines about Chedzoy and Weston Zoyland.

5. Dunball.

 Frequent on the peat moors, Fl. Bristol. I have seen it about Ashcott Station and Meare.

 Pond at Kenn (Miss Livett); frequent in the moor ditches of the Nailsea and Walton Valleys, Fl. Bristol. About Berrow and Uphill.

Var. Witheringii (Sm.).

I. Plentiful about East Anstey and Brushford.

3 West Monkton. Between Cothelstone and Kingston.

6. Chard Common.

8. Cole; Shapwick, W. Watson. Burnham. .

9. Wick St. Lawrence (Miss Roper), Fl. Bristol. Uphill.

 Between Stanton Drew and Pensford (D. Fry); near Publow, Fl. Bristol.

This appears to be the prevailing plant in Somerset, as in Britain generally; Smith may have rightly described it as a species.

### G. ULIGINOSUM, L.

1. In a bog between East Anstey and Brushford.

3. Moors between Wiveliscombe and Bathealton.

 Bruton; Ashcott, W. Watson. Several patches among the sandhills north of Burnham, Fl. Bristol.

 Marsh between Wraxall and Tickenham; peat ditches in the Walton Valley below Weston-in-Gordano, Fl. Bristol.

 Avon bank near Rownham; wet hillside between Ursleigh Hill and Pensford; sparingly in a boggy rill on Hampton Down, Bath (A. E. Burr), Fl. Bristol.

### G. VAILLANTII, DC.

Colonist. Fields; very rare. June to September.

- 8. On September 25th, 1913, I found this abundantly near Ashcott Station in cultivated fields, especially of potatoes, and sparingly in a neighbouring peat-pit; also a little south of Shapwick Station, in a turnip-field. Very distinct from G. Aparine in its habit and texture; also in its small, greenish flowers and small fruit, the prickles of which grow directly from the surface, and not from raised tubercles.
- 10. Casual near Twerton, 1897 (S. T. Dunn), Fl. Bristol.

G. TRICORNE, Stokes.

2. There is a specimen gathered by Collins at Shurton Bars, 1835, in Herb. Clark (H. S. Thompson).

9. Wraxall, 1906, Fl. Bristol.
10. Failand (D. Williams); between Corston and Burnet (D. Fry); Clutton; Combe Hay; Twerton (S. T. Dunn), Fl. Bristol.

### ASPERULA, L.

A. ODORATA, L.

1. Barle Valley, W. Watson.

- 2. Horner Woods, W. Watson. Escott Bottom, Rodhuish. H. Slater. Culbone.
- 3. Badger Street, W. D. Miller. Orchard Woods and Thurlbear, W. B. Butler. Pitminster. Corfe. Stoke St. Mary. West of Langport.

5. Aller. Pitney.

8. Cogley Wood, Bruton, W. Watson.

- 9. Weston-in-Gordano; Yatton; Churchill!, Fl. Bristol.
- Failand; Charlton Woods, above Portbury; Fortnight and Combe Hay, Fl. Bristol.

A. CYNANCHICA, L.

S. Creech Hill, Bruton!, W. Watson.

- 9. Woodborough Hill and Sidcot; Crook's Peak! (Mrs. Gregory and C. Bucknall); Worlebury Hill!, Fl. Bristol. Hills above Bleadon.
- 10. Lansdown; Hampton Down, etc., Fl. Bristol.

[A. ARVENSIS, L.

9. Portishead Station-yard, 1904 to 1909, Fl. Bristol.

- 10. Easton-in-Gordano, 1908 (Miss Roper); casual at Twerton, 1897-8 (S. T. Dunn); clover-field near Combe Hay, 1902, Fl. Bristol.]
- (Sherardia arvensis, L. is by no means confined to cultivated and waste ground, wall-tops, etc.; it also grows on coast cliffs, sand-hills, and—as is pointed out by Mr. White—in the dry turf of limestone hills, to a considerable elevation.)

## VALERIANACEAE.

### VALERIANA, L.

V. DIOICA, L.

2. Between Crowcombe Heathfield and Stogumber.

3. Moors near Wiveliscombe, Bathealton, and Milverton.

Feltham, above Pitminster. Corfe; Whitford Wood, W. D. Miller.

4. Staple Common.

5. Sedgmoor, II. Slater.

- Near Chard. Between Castle Neroche and Buckland St. Mary.
- 8. Wells 1; frequent on the south-eastern border, Fl. Bristol.

9. Between Wraxall and Tickenham; Yatton Moor;

Wrington; near Churchill, Fl. Bristol.

Upper Failand; Portbury (Misses Hill and Peacock);
 Barrow Gurney; Norton Hautville; Pensford; Combe
 Hay; Fortnight Farm, Fl. Bristol.

V. OFFICINALIS, L. (a. Mikanii, Syme). Only, I think, on calcareous soils.

8. Loxley Wood (on Polden), H. S. Thompson. Dry roadside ditch between Westcombe and Creech Hill, 1913; probably common about Bruton, as Dr. Moss writes of it as "the form, on the Jurassic soils." Sparingly on the turf moor, south of the railway, between Shapwick and Ashcott Stations, 1913.

 Wrington Valley about Ubley and Burrington, Fl. Bristol. Roadside between Charterhouse and Black-

down, C. E. Salmon.

Limestone slopes under Leigh Woods in the Avon gorge;
 high ground about Murdercombe near Mells; St. Catherine's, Bath (S. T. Dunn), Fl. Bristol. Warleigh, 1903.

Mr. W. H. Beeby grew this with *V. sambucifolia*, and firmly believed in their specific distinctness; I fully agree, relying on observation of the wild plants, and several years' cultivation of *V. officinalis* in my Surrey garden. Mr. White is also convinced that they are good species. On the turf moor, where *sambucifolia* abounds, I could find no intermediates.

## KENTRANTHUS, Necker.

K. RUBER, DC.

2. Porlock Weir!, and cliffs towards Culbone, C. E. Salmon.

3. Roadside hedgebank, Thurloxton.

 Portishead; Backwell Hill; Congresbury; Churchill; railway near Axbridge!; Cheddar!; Hutton; Bleadon!; Brean Down!, Fl. Bristol. Steep Holm, G. C. Druce.

This alien now looks as wild in several places as any true native. Mr. White has seen it in bloom at Axbridge from February to

November.

## VALERIANELLA, Hill.

V. CARINATA, Lois.

 Rocks near Birnbeck, Weston-super-Mare (Mrs. Gregory), Fl. Bristol.

I cannot agree with Mr. Murray in thinking this a variety of *V. olitoria*; there is a difference in habit, besides the important fruit-character. Both he and Mr. White class it as a colonist; but it is native about Chepstow (W. Gloucestershire and Monmouth), and may be so in Somerset.

V. DENTATA, Poll.

9. Wraxall Hill; Weston-in-Gordano, Fl. Bristol.

 Between Keynsham and Stockwood (D. Fry); Prior Park, Bath (Miss Peck), Fl. Bristol.

### DIPSACEAE.

## DIPSACUS, L.

D. PILOSUS, L.

3. Fideoak Hill, near Taunton, W. B. Butler. Milverton.

 Cogley Wood, Bruton, C. E. Moss. Highbridge, Fl. Bristol.

9. Compton Martin (Dr. Gough), Fl. Bristol.

 Long Ashton (Swete, Fl.); Pensford and Publow (D. Fry); to the east of Ston Easton Park (R. V. Sherring), Fl. Bristol.

## SCABIOSA, L.

S. COLUMBARIA, L.

2. Coast below Williton, on the Lias.

3. Rock Hill above Wrantage, W. B. Butler. Nailsborne, near Kingston, W. Watson.

Compton Dundon.
 Creech Hill, Bruton.

9. Uphill!; Draycott!, Axbridge!, Sidcot and Shipham; with white flowers in Uphill Churchyard (*Herb. Clark*), and sparingly but permanently on Cheddar Cliffs, Fl. Bristol.

#### COMPOSITAE.

## SOLIDAGO, L.

S. VIRGAUREA, L.

I. Hawkridge, W. Watson. Upton.

2. Watchet, H. Slater. Stogumber.

9. Coast south-west of Portishead (Miss Livett); Clevedon; Yatton and Congresbury, Fl. Bristol.

10. Providence Place and Ashton Tump, Fl. Bristol.

## ASTER, L.

A. TRIPOLIUM, L.

2. Porlock Weir. Stolford, etc. The rayless form is common.

A. Linosyris, Bernh. (Linosyris vulgaris, Cass.).

9. Fortunately this is not yet extinct; Mr. Druce found a new station for it in 1904, over a very limited area! Mr. White has seen specimens from rocks above Worle, where it no longer occurs.

# ERIGERON, L.

[E. CANADENSE. L. Alien; in a few places near Bristol. 10. Ashton Vale, 1907 (C. Wall); increasing in quantity. Abundant, south of the new bridge, Ashton Avenue, 1911 (Miss Roper); roadside in Leigh Woods, about 1884 (D. Williams), Fl. Bristol.]

E ACRE, L.

2. Steart Island, 1824, Herb. Clark. (H. S. Thompson).

3. Milverton.

Bristol.

5. Near Langport, W. Watson.

8. Wells! (Miss Livett), Fl. Bristol.

9. Nailsea (D. Fry); Tickenham Hill; coast between Clevedon and Portishead; Worlebury Hill!; Shipham, Fl. Bristol.

10. Brislington; Ashton Gate and Ashton Vale; Long Ashton; Failand (C. Bucknall)—"some of Mr. Bucknall's specimens with reddish-brown pappus are the sub-variety serotinus, Weihe"; Keynsham (Herb. Clark); Saltford (D. Fry); Buckland Dinham, Fl. E. ACRE X CANADENSE (X E. Hulsenii, Kerner).

10. Ashton Gate, 1911 (Miss Roper); on the site of abandoned iron-works, with the parents, Fl. Bristol. Over a dozen plants were found; the achenes contained no seed. Mr. White kindly sent me this, and I am quite satisfied that it is the hybrid. Only known elsewhere in Britain from a Surrey specimen which I gathered many years ago.

### FILAGO, L.

F. GERMANICA, L.

1. Between East Anstey and Brushford.

2. Porlock Weir. Bossington. Minehead Warren. Stogumber.

3. West Monkton. Stoke St. Mary.

9. Chelvey; Weston - in - Gordano; Worle, Fl. Bristol, Compton Bishop.

F. MINIMA, Fr.

 Steep Holm, 1872 (J. Storrie); on the unbroken southwestern slope of Brean Down, as well as in tillage, Fl. Bristol.

### ANTENNARIA, Gaertn.

A. DIOICA, Gaertn.

8. Turf moor near Ashcott, 1913, C. Perrens, sp. Mr. Corder, who forwarded it for verification, wrote that there was only a small clump, with about seven flower-heads. Very dwarf, perhaps owing to the hot, dry summer.

9. Worle Hill, in one spot, 1898 (Mrs. Gregory), Fl. Bristol.

 Rough, heathy field, Failand, 1913 (Mrs. Inglis); a patch rather less than a yard square, which Mr. White has seen.

There is no good cause for distrusting this as a Somerset native; here, as in E. Gloucestershire (where I have seen one patch on a limestone down), it has only been found in very small quantity.

[Anaphalis Margaritacea, Br. (Antennaria margaritacea, Gaertn.).

One plant, on a railway-bank between East Anstey and Brushford.

 One plant, on quarry rubble near Flax Bourton, 1911, Fl. Bristol.

### GNAPHALIUM, L.

G. ULIGINOSUM, L.

1. Between East Anstey and Brushford. Bury.

3. Orchard Portman, W. Watson. Maunsel. West Monkton. Bathealton.

4. Chard Reservoir.

S. Bratton St. Maur, W. Watson.

- 9. Nailsen; Weston-in-Gordano, Fl. Bristol.
- 10. Whitchurch; Pensford; Stanton Drew, Fl. Bristol.

G. SYLVATICUM, L.

- 7. In old pastures on the Greensand, near Alfred's Tower, C. E. Moss.
- 9. Hillside above the sea beyond Ladye Bay, Walton-in-Gordano (Miss Livett), Fl. Bristol.

10. Field near Asham Woods (Rev. S. Laing), Fl. Bristol.

### INULA, L.

I. HELENIUM, L.

3. Orchard Portman woods; Rock Hill, Wrantage, 1897, W. B. Butler.

8. Near Cogley Wood, Bruton, W. Watson.

9. On 150 yards of hedgebank and pasture on high ground between the top of Tickenham Hill and Charlton Woods (C. Bucknall); orchard, Barrow Gurney; Portishead

(Duck, Hist.), Fl. Bristol.

10. Bedminster; between Providence and Flax Bourton (C. Wall); lane between Failand Hill and Pill (Misses Cundall); Kelston; Burnet, near Keynsham (Herb. Flower, 1876); between Chewton Keynsham and Compton Dando; Hallatrow (D. Fry); Priston; meadow between Brickfield and Breach Hill (Dr. Gough); meadow near the Warminster Road, a mile and a half south-east of Bath (A. E. Burr); field below Hampton Down (Miss Peck), Fl. Bristol.

Mr. White considers this to be certainly wild in some of its

stations.

I. SQUARROSA, Bernh. (I. Conyza, DC.).
2. Stogumber. Bossington. "Not uncommon all over the district," H. Slater.

3. Corfe. West Monkton. Cothelstone. Bishop's Lydeard. Milverton.

5. Aller. Compton Dundon.

 Shepton Montague, W. Watson. Puriton.
 Flax Bourton; Chelvey Batch; Wraxall, near Portishead; Congresbury; Churchill Batch; Bleadon!, Fl. Bristol.

10. Brislington; between Pensford and Stanton Drew; Saltford (D. Fry); Binegar, Fl. Bristol.

I. CRITHMOIDES, L.

9. Still on Steep Holm in 1909, G. C. Druce; he suggests that this may have been the plant found by Lobel, and wrongly referred to Suaeda fruticosa.

## PULICARIA, Gaertn.

P DYSENTERICA, Gaertn.

10. Mr. G. B. Milne-Redhead, of Millard's Hill, near Witham, has sent me a form without ray-florets, agreeing with Rouy's description of subvar. flosculosa, Corbière.

### BIDENS, L.

B. CERNUA, L.

3. Northmoor, near Maunsel.

8. Wedmore; Wells!, Fl. Bristol.

Tickenham (D. Fry); Clapton; Ubley end of the Yeo Reservoir (Dr. Gough), Fl. Bristol.

B. TRIPARTITA, L.

2. Near Dunster.

4. Chard Reservoir.

5. Chedzoy.

8. Wells; Burnham, Fl. Bristol.

10. Saltford (D. Fry); canal banks near Paulton and Camerton, Fl. Bristol.

## ACHILLEA, L.

A. PTARMICA, L.

1. Near East Anstey, towards Brushford.

8. Bruton, W. Watson. Furze Wood near Masbury Camp (R. V. Sherring), Fl. Bristol.

9. Clapton Moor, Fl. Bristol.

10. Between Bath and Lacock Abbey (A. E. Burr), Fl. Bristol.

### ANTHEMIS, L.

A COTULA, L.

Bossington. Kilve. Beach near Stolford.
 Bruton, W. Watson. Croscombe (Miss Livett), Fl. Bristol.

Brislington; Keynsham; between Stanton Drew and Knowl Hill; North Stoke, Fl. Bristol.

A. ARVENSIS, L.

2. Watchet, R. P. Murray, sp.

3. Quarry above West Monkton Church.

8, Bruton; infrequent, W. Watson.

9. Brean Down, G. C. Druce. Portishead Station-yard, Fl. Bristol.

A. NOBILIS, L.

1. Near Winsford.

2. Bossington.

4. Staple Common.

8. Wells; casual (Miss Livett), Fl. Bristol.

## CHRYSANTHEMUM, L.

C. SEGETUM, L.

2. Field near Crowcombe, W. B. Butler.

3. Bradford, W. Watson.

5. Chedzoy.

8. Bratton St. Maur, W. Watson.

9. Portishead Station-yard, for many years past; near

- Congresbury; Uphill, Fl. Bristol.

  10. Bank of Avon, Leigh side (Herb. Powell, 1833); Whitchurch, one plant (D. Fry); East Dundry and Norton Malreward (J. F. Hopkins); Pensford Station (Miss Roper); Portbury (Misses Cundall); near Twerton (S. T. Dunn), Fl. Bristol.
- C. Parthenium, Bernh. (Matricaria Parthenium, L.).

2. Washford, etc. Bossington.

8. Croscombe!; Dulcote (Miss Livett), Fl. Bristol.

9. Bourton Batch; Winscombe (D. Fry); on Mendip, east of Cheddar; Worle, Fl. Bristol.

10. Railway bank under Leigh Woods; by Ashton Avenue; Long Ashton; by the Midford Brook, Fl. Bristol.

## MATRICARIA, L.

M. INODORA, L., var. salina, Bab.

2. Porlock Weir. Blue Anchor. Below Williton. Steart.

8. Plentiful on banks and ditch-sides near Huntspill. Burn-

9, 10. Shores of the Bristol Channel, Fl. Bristol.

M. CHAMOMILLA, L.

2. Bossington.

9, 10. Rather common, Fl. Bristol.

M. SUAVEOLENS, Buchenau (discoidea, DC.).

Alien. Roadsides, etc.; recently introduced, and as yet very local, but likely to become common. June to August.

5. Outside Langport East Station, 1909.

8. Near the golf ground, Burnham, C. F. Vincent (Druce in

Journ. Bot., 1906).
9. By fowl runs, Walton- and Weston-in-Gordano, 1907 (Miss Livett); in enormous quantity in a neglected cultivation under the woods between the villages just named, and along the grassy track, known as Cadbury Road, that leads from Weston-in-Gordano over the moor to Clapton, 1909: in 1911 the plant had spread along the light railway towards Clevedon; Portishead Stationyard, etc., 1903 to 1910, Fl. Bristol.

10. Waste ground by Ashton Avenue, 1911; by the Dundas

Aqueduct near Bath (Miss Roper), Fl. Bristol.

Being an annual, and producing great quantities of seed, this American invader is almost sure to spread rapidly.

#### TANACETUM, L.

T. VULGARE, L.

2. Near the Decoy, Porlock Weir!, C. E. Salmon.

3. Between Wembdon and Cannington. Near North Newton.

8. Wells (Miss Mayow), Fl. Bristol.

9. Portishead (Miss Livett), Fl. Bristol. 10. By the Avon from Bathampton and Bath to Keynsham and Brislington, and again under Leigh Woods; between Keynsham and Queen Charlton; about Failand and Portbury, Fl. Bristol.

### ARTEMISIA, L.

A. Absinthium, L.

2. Alcombe, H. W. Pugsley.

9. Cadbury Camp (D. Fry); Portishead (Duck), Fl. Bristol.

A. VULGARIS, L.

2. Williton. Minehead.

6. Chard.

9, 10. Abundant in some places, and apparently well distributed, Fl. Bristol.

Var. coarctata, Forselles is, I believe, the prevailing form in Somerset.

A. MARITIMA, L.

10. Near Portbury and Pill, Fl. Bristol.

Var. gallica (Willd.).

3. In August, 1907, Mr. C. E. Salmon and I found this growing with the type near the tidal Parret, between Steart and Combwich; seen nowhere else.

### PETASITES, Hill.

P. OVATUS, Hill (officinalis, Moench; vulgaris, Desf.).

1. Exton. Winsford.

2. Watchet !, H. Slater. Bossington !, C. E. Salmon. Washford. Williton. Stogumber. Crowcombe.

3. Near Taunton.

4. Chaffcombe. Beererocombe.

8. Plentiful by the Brue and Alham, about Castle Cary and Milton Clevedon. Croscombe (Miss Livett), Fl. Bristol.

9. Flax Bourton; Wrington; near Portishead, Fl. Bristol.

10. By the Avon, at and above St. Anne's Wood; about Portbury; Stanton Drew and Compton Dando; Corston; Paulton; near Radford; Hallatrow and Camely Bottom (R. V. Sherring), Fl. Bristol.

## DORONICUM, L.

D. PARDALIANCHES, L.

 Below Staple Common (not far from Curland Church), 1913, Miss A. Miller, sp.

9. Lane, Flax Bourton, Fl. Bristol.

Beggar's Bush Lane, 1905 (C. Bucknall)—has since increased; by the old canal, north of Dunkerton, Fl. Bristol.

### SENECIO, L.

S. VULGARIS, L., var. radiatus, Koch.

 About Portishead Station, first observed sparingly in 1900, and now abundant; roadside, Walton-by-Clevedon (Miss Livett), Fl. Bristol.

10. A garden weed at Nunney (Rev. S. Laing), Fl. Bristol.

S. SYLVATICUS, L.

1. Between East Anstey and Brushford. Bury.

2. Porlock Weir.

3. West Monkton.

10. Failand; between Brislington and Keynsham, Fl. Bristol.

S. VISCOSUS, L. An alien; but increasing in area and quantity.

- Abundant along the new railway from Castle Cary to Taunton, between Langport and Somerton; first observed in 1907.
  - Railway track between Bruton and Castle Cary, C. E. Moss. On the peat moors, sparingly (Mrs. Gregory), Fl. Bristol.

- 9. Persistent on the Portishead railway; Steep Holm, 1883 (J. Storrie), Fl. Bristol.
- 10. Ashton Gate, a few plants, 1907-1911, Fl. Bristol.

S. ERUCIFOLIUS, L.

2. Williton.

3. Lyng. North Newton.

- 5. Pitney. Compton Dundon. Chedzoy. Weston Zoyland.
- 8. Common to the south of Wells! (Miss Livett), Fl. Bristol. Huntspill.

9. Portishead, Fl. Bristol.

10. Between Queen Charlton and Publow; between Norton Malreward and Stanton Drew; Compton Dando, Fl. Bristol

S. JACOBAEA, L.

- 9. The rayless form (var. discoideus, L.) was found at Worle in 1880. Fl. Bristol.
- S. AQUATICUS, Hill, var. pennatifidus, Gren. & Godr. 9. Weston-in-Gordano (Miss Roper). Fl. Bristol.

S. SARRACENICUS, 'L.', Jacq. (S. fluviatilis, Wallr.; S. salicetorum, Godr.).

8. Extends along the Alham from near Westcombe to its junction with the Brue, and along the latter stream from below Bruton to Alford, in great abundance.

10. Hedgerow between Midsomer Norton and Paulton (D. Fry); valley between Mells and Great Elm (Rev. S.

Laing), Fl. Bristol.

I think this indigenous in the south-east of district 8, where it grows with Aconitum; it may also be truly wild near Frome. Mr. White classes it as an alien or denizen, in his area.

## CARLINA. L.

C. VULGARIS, L.

2. Luxborough; Withycombe, H. Slater. Bossington. Blue Anchor. Williton. Kilve.

3. Stoke St. Mary!, W. Watson. Corfe. Badger Street. West Hatch. West of Langport.

4. Staple Fitzpaine.

5. Dunball. Aller. Pitney. Kingweston, etc.

8. Dulcot, near Wells. Creech Hill, Bruton.

9. Above Bourton Combe; Backwell Hill; Broadfield Down; Portishead; Wavering Down!; Uphill!; Burrington; Axbridge!; Draycott!, Fl. Bristol. Steep Holm, G. C. Druce. Bleadon. Berrow. Churchill. 10. Open rocky ground, Leigh Woods; Failand; Barrow

Hill, Fl. Bristol.

## ARCTIUM, L.

A. LAPPA, L. (majus, Bernh.).

9. Roadsides between Brent Knoll and Berrow, Fl. Bristol.

- 10. Brislington; Stockwood; Publow and Keynsham (D. Fru): Queen Charlton: Newton St. Loe (Miss Roper); bank of Avon below Bath, Fl. Bristol.
- A. VULGARE, Evans (including A. intermedium, Lange and A. pubens, Bab.).

4. South of Langport, W. Watson.

5. Dunball (D. Fry) !, Fl. Bristol. 8. Common in the woodlands about Bruton, C. E. Moss.

9. Walton-by-Clevedon (Miss Livett); Worle and Brean Down (F. Samson), Fl. Bristol.

10. Beggar's Bush Lane (C. Bucknall); Leigh Woods (Miss Roper); riverbank, Bath (Herb. Dunn), Fl. Bristol.

Subvar. pycnocephalum, Evans (A. nemorosum, Bab., non Lejeune; A. Newbouldii, Ar. Benn.).

4. South of Langport, W. Watson.

Mr. A. H. Evans has lately revised our British Burdocks (Journ. Bot., 1913, pp. 113-9); I have used his names.

## CARDUUS, L.

C. PYCNOCEPHALUS, L., var. tenuiflorus (Curt.).

2. Stockland, Rev. C. W. Whistler. Plentiful on the beach from Steart to Stolford. Coast near Williton. Hurlstone Point.

8, 9. Dotted along the whole coast, from Portishead to the Brue at Highbridge, Fl. Bristol. "The record in Fl. Bathon. is probably an error."

## C. CRISPUS, L.

2. Dunster.

5. Charlton Mackrell.

8. Bruton (acanthoides), W. Watson. By the Brue near Castle Cary Station. Near Ashcott Station.

9. Steep Holm (acanthoides), G. C. Druce.

10. The prevailing thistle in the Avon valley, from Conham up to Bath, Fl. Bristol.

## CNICUS, L.

C. ERIOPHORUS, Roth.

Pitney. Near Kingweston.
 Bruton, C. E. Moss (Creech Hill, W. Watson).

9. Potter's Hill by Felton (F. Samson); Backwell (Miss Livett), Fl. Bristol. Abundant on the south-eastern slope of Brean Down.

#### C. PRATENSIS, Willd.

1. Frequent between East Anstey and Brushford.

2. Crowcombe Heathfield.

3. Moors near Wiveliscombe, Bathealton, and Milverton. West Sedgmoor, W. Watson.

4. Staple Common.

6. Between Castle Neroche and Buckland St. Mary.

8. Old pastures on Oxford Clay, between Bruton and Kingswood Warren, C. E. Moss. On peat near Wells (Miss Livett), Fl. Bristol.

9. Nailsea Moor; Weston-in-Gordano (D. Fry), Fl. Bristol.

 Failand (D. Williams), Fl. Bristol. Nempnett, C. E. Salmon.

#### C. ACAULIS, Willd.

2. St. Audries to Kilve, plentiful.

- 3. Pickeridge, W. Watson. Stoke St. Mary. Meadow at Monkton Heathfield.
- 5. Aller. Pitney. Common near Somerton.

8. Bruton.

9. Kewstoke; Uphill; Compton Bishop, etc.

10. Distributed throughout the district, Fl. Bristol.

Var. caulescens, Pers.

5. Plentiful in pastures on the Lias about Somerton and Compton Dundon, with the type.

Backwell Common and Tickenham Hill (Miss Roper);
 Callow Hill near Sidcot; above Draycott, Fl. Bristol.

10. Keynsham (D. Fry); Houndstreet, Fl. Bristol. Mr. White remarks that it seems to be permanent.

#### C. ACAULIS X LANCEOLATUS.

8. Coombe Hill, Bruton, W. Watson. "Flower heads large; florets imperfectly formed; sterile. I remember spending some time in the examination of the specimens, and finally concluding that it must be a hybrid, and almost certainly between these two species."

Not in our lists; but see Fl. Som., p. 202.

## ONOPORDUM, L.

O. ACANTHIUM, L.

8. Waste ground by Highbridge Station, 1894 (D. Fry); still at Burnham, 1910 (Rev. A. Ley), Fl. Bristol.

 Portishead Station-yard, 1905 and later (Miss Livett); in 1907 the same lady found at least fifty plants, north of Kewstoke Bay, not far from Sand Point, confirming Dr. St. Brody's old record, and quite as many were seen in 1909, Ft. Bristol.

Classed as a denizen in Ft. Som.; but surely Mr. White is jus-

tified in believing it to be native on the coast of N. Somerset.

## SILYBUM, Vaill.

S. Marianum, Gaerin. (Mariana lactea, Hill).

Near the entrance to Minehead Warren, in small quantity.
 Hedge near Dunster. In great abundance on Lias slopes outside a wood by the railway, between Watchet and Washford.

3. Hedge, West Monkton, occasionally.

 Meadow between Langport and Aller. Plentiful about a wood above the Brue, Dunball.

8. In building-plots at Burnham, 1898 (H. S. Thompson-

plentiful in 1905), Fl. Bristol.

 Portishead Station-yard, 1909 (Miss Roper) and 1910, Fl. Bristol.

 Knowle; abundant for some years on the edge of a recreation ground, Fl. Bristol.

In at least three of its stations it is now thoroughly established, and looks just like a native.

## SERRATULA, L.

1. Between East Anstey and Brushford.

3. Corfe. Above Wrantage.

4. Staple Common.

 In and around Cogley Wood, Bruton, W. Watson. Turf moor near Edington Station (Herb. Clark), Fl. Bristol.

9. Cliff path near Portishead (Miss Livett); Cleeve Woods; hill near Winscombe, and meadows in the Max Valley; Worlebury Hill!; meadows of the Yeo valley (Dr. Gough), Fl. Bristol.

10. Between Chew Stoke and Compton Martin; Vobster,

near Mells (Rev. S. Laing), Fl. Bristol.

## CENTAUREA, L.

C. NIGRA, L.

Mr. White has some good remarks on the forms of this species. Mr. Burr reported var. decipiens as quite common near Bath, and Mr. Fry believed that he had it near Clevedon; but neither

Mr. Watson nor I have seen it, farther south. The rarity of the typical rayless plant (which Mr. Watson has found about Bruton) is remarkable; the radiate form, at least in the Taunton neighbourhood, seems to have smaller, narrower heads, and may be one of the Continental segregates.

C. CYANUS, L.

8. Highbridge (Miss Peck), Fl. Bristol.

9. Mill refuse, Portishead, 1902-9, Fl. Bristol.

10. On ballast at St. Anne's Park, 1905 (Miss Roper), Fl. Bristol.

[C. SOLSTITIALIS, L.

- 9. Portishead Station-yard, every year since 1905, Fl. Bristol. 10. Casual at Twerton, 1897 (S. T. Dunn); in good quantity with sown grasses on Hampton Down, 1896 (D. Fry). Fl. Bristol.
- IC. CALCITRAPA, L. has occurred as a casual at Portishead and Twerton; and C. melitensis, L. at Portishead, Brislington. Twerton, and Bath, Fl. Bristol.]

# CICHORIUM, L.

C. INTYBUS, L.

2. Bossington!, C. E. Salmon. Washford.

3. Rock Hill, Wrantage, W. B. Butler.

4. Staple Fitzpaine, W. Watson.

5. Langport, W. Watson. Keinton Mandeville.

8. Lanes near Chilton Polden, H. Slater.

9. Hillside between Wraxall and Tickenham, Fl. Bristol.

10. Quarry by the Abbotsleigh Road, in profusion, 1894 (Miss Roper); Stockwood; Whitehurch; Stanton Drew; North Stoke, Fl. Bristol.

# PICRIS, L.

P. HIERACIOIDES, L.

2. Tivington, H. W. Pugsley.

3. Between Combwich and Stoke Courcy.

4. Staple Fitzpaine.

5. Langport.

8. Near Bruton!; Shepton Montague, W Watson.

9. Portishead; Brean Sands (Mrs. Gregory), Fl. Bristol.

10. Pensford; Clutton; about Keynsham and Saltford; Twerton; Buckland Dinham, Fl. Bristol.

P. ECHIOTDES, L. (Helminthia echioides, Gaertn.).

2. Bossington. Williton. Kilve.

3. Mannsel. West Hatch.

4. Chard.

 Langport, W. Watson. Aller. Chedzoy. Weston Zoyland. Dunball.

S. Burnham!; frequent near Wells! (Miss Livett); South

Brent !, Fl. Bristol.

9. Wick St. Lawrence; Uphill! (Miss Roper); Yarley Hill (Miss Livett), Fl. Bristol.

Keynsham; between Publow and Queen Charlton; between Swineford and North Stoke, Fl. Bristol.

# CREPIS, L.

[C. FOETIDA, L. 10. Disused Lias quarry near Twerton, 1897 (S. T. Dunn), Fl. Bristol.

# C. TARAXACIFOLIA, Thuill.

2. Watchet. Minehead.

3. Taunton. Monkton Heathfield Creech St. Michael. Norton Fitzwarren.

5. Between Langport and Aller. Somerton.

 Common in hedgerows and arable fields near Bruton, C. E. Moss.

9. Now in several spots about Clevedon; Weston-super-

Mare (Mrs. Gregory), Fl. Bristol. Uphill.

10. Between Knowle and Whitchurch; Queen Charlton; Publow; Saltford; about Markham Bottom and Haberfield Bridge; Failand; between Combe Down and Combe Hay; Duncorn Hill; Hampton Down, Bath (C. Bucknall), Fl. Bristol. Bathampton.

Locally abundant in several districts, and increasing; it can

no longer be called rare, as when Fl. Som. was written.

C. BIENNIS, L.

 Railway embankments near Nailsea (Miss Roper) and Winscombe, and in a field at Weston-super-Mare (Mrs. Gregory), Fl. Bristol.

## HIERACIUM, L.

# H. PILOSELLA, L.

Var. nigrescens, Fr.

 Cheddar Gorge. The Steep Holm plant mentioned by Mr. Murray should, I believe, be placed under this. Var. concinnatum, F. J. Hanb.

2. Minehead Warren. Near Bossington.

3. Cothelstone Hill.

9. Cheddar Gorge. Brean Down. Rocks above Draycott! (R. V. Sherring, fide E. F. Linton), Fl. Bristol.

H. AURANTIACUM, L.

9. Yatton; Clevedon; Milton, near Weston-super-Mare; one plant in Compton Martin Wood, 1910 (Dr. Gough),

10. Quarry at Hallatrow, and by the road to Temple Cloud,

Fl. Bristol.

Though a foreigner, this is too persistent to be placed among excluded species.

H. AMPLEXICAULE, L.

Alien, but now established in one station; very rare. June to

August.

10. Walls at Mells, G. B. Milne-Redhead; a luxuriant garden specimen, raised from seed collected there, was sent to me in 1913.

## H. SCHMIDTH, Tausch.

Var. eustomon, Linton.

2. The plant mentioned in Fl. Som. is certainly not var. devoniense, as stated in W. R. Linton's British Hieracia, p. 24, but exactly like the Glamorgan eustomon. I incline to think it a distinct species, the foliage and large, handsome flowers being so unlike those of any H. Schmidtii known to me; it is plentiful for a good distance on the coast rocks between Minehead and Greenaleigh. A substylose form grows above the woods near Culbone, and comes true from seed in my garden.

Var. devoniense, F. J. Hanb.

9. Cheddar Gorge, 1910 (Rev. A. Ley), Fl. Bristol.

I have not seen this species at Cheddar; but in 1905 Mr. Ley, whose knowledge of our western Hawkweeds was unrivalled, told Mr. White he was satisfied that it did exist there.

H. CYATHIS, Ley.

Native. On limestone; very rare. June, July.

9. Cheddar Gorge!, A. Ley. In good quantity, chiefly about the middle of the pass; the great majority of the plants formerly called H. Schmidtii must be referred to this species, which is only known at present from Brecon and Somerset. [11. URANDIDENS, Duhlst., which is closely allied to H. serratifrons, Almq., should be found in the extreme south-west; it grows in profusion on Sheepwash Hill above Molland Station, N. Deyon, only a few miles from the county border.]

H. EUBIGINOSUM, F. J. Hanb.

Native. On limestone; very rare. June, July.

9. ('heddar Gorge! A. Ley; sparingly in two or three spots on screes by the roadside, but probably there is more of it on the rocks above. Cheddar specimens in the British Museum Herbarium and in Mr. F. J. Hanbury's collection are misnamed H. flocculosum, Fl. Bristol.

H. VULGATUM, Fr.

I am very sceptical indeed as to the existence of the true plant in Somerset; Rev. W. R. Linton (British Hieracia, p. 63) says "apparently absent from S. Wales and West England." I have not seen Mr. Murray's Dulverton specimens; but they are not likely to have been this. Probably all his records should be transferred to H. sciaphilum.]

H. MACULATUM, Sm.

 Two plants on limestone rubble, high up in Cheddar Gorge, 1909 (Rev. A. Ley); Portishead Station-yard, 1904, Fl. Bristol.

 By the railway near Clutton, and at Warleigh Ferry (D. Fry); colliery heaps at Camerton; roadside quarry near Hallatrow; in a rayine near old iron-works be-

tween Mells and Great Elm, Fl. Bristol.

Mr. Ley wrote to me (July 5th, 1909) that in the Cheddar station it was "bearing all the appearance of a native plant: indeed the specimens I saw could not well have been planted.. I had no opportunity of going off the road, this time. I did not see the plant anywhere in Cheddar gardens." From his other remarks I infer that it is the same as the native maculatum of W. Yorkshire and Carnarvon; the Bath Oolite form so named, which grows in suspicious stations, and is probably not indigenous, differs from that in habit, foliage, head-clothing, and especially in having the ligules distinctly pilose-tipped: and I believe that they are at least varietally distinct.

H. SCIAPHILUM, Uechtritz. (H. vulgatum, Syme, non Fr.).

To this I would transfer all the stations given for H. vulgatum

in Fl. Som.; the true northern species is quite different.

 Bank bordering a wood above Porlock Weir; proved by cultivation to be the type. Mr. C. E. Salmon had previously found it (or a closely allied form) on a neighbouring cliff. Var. transiens, Ley.

- Naish Hill, Clapton in Gordano; Norton's Wood, Clevedon, and Walton-in-Gordano (D. Fry); Churchill Batch; in "The Perch" defile south of Shipham; unquarried crags on the north face of Shuteshelve Hill, Fl. Bristol.
- Open spots in Leigh Woods; walls on Failand Hill, Ft. Bristol.

I have seen no specimens; but Mr. White's statement that the whole of these plants were formerly referred to *H. orarium*, Lindeberg suggests *ciliate* ligules, which are a distinguishing character of the type. All the Cheddar examples which I have examined were the usual limestone form of that; so I am doubtful whether this newly-described variety really occurs.

[H. GOTHICUM, Fr., was an error.]

H. TRIDENTATUM, Fr.

9. Callow Rocks near Sideot, Fl. Bristol.

 Roadside quarry near Hallatrow (D. Fry); valley between Mells and Great Elm (Rev. S. Laing), Fl. Bristol.

H. RIGIDUM, Hartm.

Native. Banks and rocks; rare. July to September.

Var. · trichocaulon, Dahlst.

3. Plentiful, 1906, on a hedgebank below Buncombe Hill, near Kingston. "Much like the English plant so named. The Scandinavian plant has longer, narrower leaves, less toothed, and many fine glands; so that your plant is not exactly it," W. R. Linton in litt.

9. Reported from Mendip by Mr. R. V. Sherring, Fl. Bristol.

Var. scabrescens, Dahlst.

9. Ebbor Rocks (the 'gothicum' of Fl. Som.); Callow Rocks near Sidcot; Churchill Batch (C. Bucknall), Fl. Bristol. Mr. White has been advised to call the Ebbor plant "a more glandular form of scabrescens"; but there seems to be some doubt about the name, as it was formerly identified with our var. pullatum, now called var. obatrescens, Dahlst. (found in Aberdeenshire and three Welsh counties, including Glamorgan). I saw a specimen some years ago, and did not think that it agreed with scabrescens; nor did Mr. Hanbury.

H. BOREALE, Fr.

1. Near Exton.

2. Stogumber. Porlock Weir. Culbone.

10. In profusion one side of the G.W.R. cutting and about

the Pennant quarries between St. Anne's and Keynsham Hams (D. Fry); Nettlebridge (Miss Livett), Fl Bristol.

II. UMBELLATUM, L.

3. Kingston. Combe, near West Monkton.

Var. coronopifolium, Fr.

2. Between Dunster and Timberscombe.

 Dry wood-borders, West Monkton; confirmed by Rev. E. F. Linton.

Var. monticola, Arvet-Touvet.

1. Hartford Bottom, Haddeo Valley.

2. Culbone; constant under cultivation.

# HYPOCHAERIS, L.

H. GLABRA, L.

 Sands of Kewstoke Bay (Mrs. Gregory); both type and var. Balbisii (Lois.), Fl. Bristol.

## LEONTODON, L.

L. NUDICAULE, Banks & Solander (L. hirtum, L.; Thrincia hirta, Roth).

2. Steart.

3. Nailsborne, near Kingston, W. Watson. Cothelstone. Gotton, West Monkton.

8. Wells (Miss Livett), Fl. Bristol.

9. Draycott!; abundant on Berrow sandhills!, Fl. Bristol.

 Norton Malreward, Norton Hautville, and Stanton Drew (D. Fry); Claverton Down, Bath (Herb. Flower), Fl. Bristol.

"Mr. Bucknall has from sandy soil at Berrow a form of different aspect from the common plant—very strong, with scapes approaching a foot in length—that produces a kind of tap root from which the neck fibres are entirely absent. In some respects, therefore, the specimens simulate the Continental T. hispida Roth; from which, however, they are at once distinguished by the normal shortly-beaked fruit. Nor do they agree with the var. arenaria DC." Fl. Bristol.

# TARAXACUM, Haller.

T. ERYTHROSPERMUM, Andrz.

3. Near North Newton. Cothelstone.

4. Castle Neroche.

8. Bruton, W. Watson.

- Sand dunes at Brean! and Berrow!; Kewstoke Bay, Weston-super-Mare, and Brean Down! (Mrs. Gregory); Bourton Batch, Fl. Bristol.
- 10. On rocks in Asham Wood (Miss Livett), Fl. Bristol.

Var. laevigatum (DC.).

- Plentiful on Minehead Warren, E. W. Hunnybun.
   Cothelstone Hill; ascending to fully 1,000 feet.
- 8. Near Shepton Mallet (Miss Roper), Fl. Bristol.

10. Plentiful on walls near Bath (S. T. Dunn), Fl. Bristol.

T. erythrospermum retains its character in garden soil. The pale achenes seem to be the chief distinction of T. laevigatum, which is very similar in habit.

T. PALUSTRE, DC.

Noted as seen by me, as follows; but I am not sure that the true plant was found. Dr. Moss tells me that it flowers very early (quite by May); so it may easily be overlooked.

1. Damp pastures between East Anstey and Dulverton.

2. Near Porlock Decoy

5. Marshy pastures, Dunball.

This has not come under Mr. White's notice.

T. UDUM, Jord. Common, I believe, at least in the lowlands.

1. Dulverton.

2. Williton. Minehead. Porlock Weir.

3. West Monkton. West Stoke. West Sedgmoor.

5. Aller. About Somerton and Kingweston.

6. Near Chard.

8. Burnham.

9. Crook's Peak. Brean Down.

10. Monkton Farleigh.

# LACTUCA, L.

[L. VIROSA, L.

3. Abundant for nearly a quarter of a mile by the railway west of Langport, near the junction of the new main line with the Yeovil branch; seen every year from 1907 to 1913, but not gathered. I formerly reported it as L. Serriola, L.; but the leaves are spreading, and it looks more like virosa.

 Abundant for some years past on the bank of the "Pill" above Portishead Dock, near railway sidings; first

observed in 1900, Fl. Bristol.]

- L MURALIS, Gaertn.
  - 2. Porlock Weir.
  - 8. Bruton.

9. Portbury; Portishead, Fl. Bristol.

10. Failand : Belmont Hill and Long Ashton (Miss Roper), Fl. Bristol.

# SONCHUS, L.

S. ARVENSIS, L., var. glabrescens, Haller.

3. In 1907 Mr. C. E. Salmon and I found this by the tidal Parret between Steart and Combwich, very scarce.

# TRAGOPOGON, L.

T. PRATENSE, L.

3. Staplegrove ("type"), W. Watson.

5. Bruton ("type"), W. Watson.

T. MINUS. Miller.

- 3. About Taunton; Creech St. Michael, W. Watson.
- 8. Bruton; Evercreech, W. Watson.

[T. PORRIFOLIUM, L.

9. Weston-super-Mare (Herb. Jenyns, 1854); also, on waste ground, 1907 (Mrs. Warry), Fl. Bristol.]

# CAMPANULACEAE.

# JASIONE, L.

1. Common about East Anstey and Brushford. Skilgate. Upton. Winsford.

2. Porlock Weir, etc. Minehead. Var. major, Mert. & Koch.

Hurlstone Point. A strong, large-headed, biennial plant; doubtless it grows elsewhere on the coast.

# WAHLENBERGIA, Schrad.

W. HEDERACEA, Reichb.

1. Winsford. King's Brompton. Frequent in districts 1 and 2, W. Watson.

2. Oareford; Porlock Common; Horner Water, C. E.

Salmon. Between Dunster and Timberscombe.

7. About Pen Selwood, C. E. Moss.

8. Kingswood Warren and woods above, C. E. Moss.

# CAMPANULA, L.

C. GLOMERATA, L.

8. Creech Hill, Bruton!, W. Watson. Near Wells (Miss

Livett), Fl. Bristol.

10. Near Star on Mendip, and in plenty between Cranmore Station and the Mendip quarries (R. V. Sherring); Newton St. Loe (G. Morse); Midford; lane leading from Lansdown to Langridge, Fl. Bristol.

C. TRACHELIUM, L.

8. Bruton, W. Watson. Ham Woods near Croscombe, Fl. Bristol

9. Cadbury Camp, with white flowers (A. E. G. Way); Loxton; Ubley; Sidcot (W. F. Miller), Fl. Bristol.

10. Beggar's Bush Lane (Miss Roper); Failand; Cranmore. Fl. Bristol.

C. LATIFOLIA, L.

1. Mr. Murray's station by the Barle is just the kind of place which this plant prefers; and an examination of the banks higher up may prove it to be native. It is truly wild in Glamorgan, and used to grow near Bristol in E. Gloucestershire. Excepting botanical gardens, I do not remember seeing it in cultivation.

8. "In Science Gossip, 1885, p. 194, Mr. G. H. Bryan records C. latifolia with C. Trachelium from near Shepton Mallet; and Mr. J. H. Reed tells me that he believes the plant has grown there towards West Compton. Miss Roper has very kindly made a special search in that neighbourhood, but fruitlessly. She reports having met with C. Trachelium in unusual luxuriance, and as the leaves of that species vary so much in size and shape she thinks it likely that some big examples of it have been mistaken for C. latifolia." Fl. Bristol.

C. ROTUNDIFOLIA, L.

3. Cothelstone Hill, W. B. Butler.

8. Creech Hill, Bruton, and near Westcombe.

9. Bleadon Hill; Shipham, etc.; Dolebury (white-flowered), Fl. Bristol.

10. Bedminster Down; Brislington (Swete, Fl.); Beggar's Bush Lane; Upper Failand; near Ashton Tump and Providence Place; between Pensford and Upper Stanton, Fl. Bristol.

C. PATULA, L.

8. Below Creech Hill, Bruton, W. Watson.

9. Reported from Compton Martin Wood, Fl. Bristol.

10. Field at East Harptree near the Manor House (D. Fry, 1888), Fl. Bristol.

# LEGOUSIA, Durande (Specularia, Heist).

L. HYBRIDA, Delarbre. (Specularia hybrida, A. DC.).

3. Milverton, Miss Falcon.

S. Cornfield near Kingweston, 1831, Herb. Clark (H. S. Thompson).

9. Wraxall (Miss Peck, 1906), Fl. Bristol.

10. Lansdown; between Odd Down and Combe Hay, and on Fortnight Farm, Fl. Bristol.

#### ERICACEAE.

## ERICA, L.

E. Tetralix, L.

1. Moors near East Anstey. Upton. Skilgate. 2. Dunkery, W. Watson. Crowcombe Heathfield.

4. Staple Common.

6. Buckland St. Marv.

# PYROLA, L.

P. MINOR, L.

10. Leigh Woods, in one of the side glades to the left of the big oak (G. B. Thompson), Fl. Bristol.

## MONOTROPACEAE.

# MONOTROPA, L.

M. Hypopitys, L. (Hypopitys multiflora, Scop.).

9. Wood at Weston-super-Mare (Mrs. Gregory), Fl. Bristol. 10. Refound under lime trees in Leigh Woods, 1896 (Mr. Prideaux); also near the Abbotsleigh road, 1901 (J. W.

White), in a spot now built upon; Hampton Wood, Bath, in plenty (Miss Peck, 1907), Fl. Bristol.

#### PLUMBAGINACEAE.

#### STATICE, L.

S. LIMONIUM, L. (Limonium vulgare, Miller).

8. Mud-flats on both sides of the mouth of the Brue, es-

pecially between Burnham and Highbridge.

- 9. Salt-marsh, Portishead (Misses Cundall), now lost; very sparingly in the Berrow sand-marsh, 1881, Fl. Bristol. Salt-marsh below Uphill.
- S. BINERVOSA, G. E. Smith (auriculaefolia, Vahl; occidentalis, Lloyd).

2. Steart Island, 1902 (Dr. C. E. Moss), Fl. Bristol.

8. Sea-wall south of Burnham, 1885 (H. S. Thompson); not seen by him, in 1906, Fl. Bristol. Swallow Cliffs near Sand Bay, Kewstoke, 1913 (F. Samson); about 200 plants, J. W. White in litt.

Var. procera, C. E. Salmon.

9. Birnbeck Island, Weston-super-Mare, 1896 (D. Fry). C. E. Salmon in litt.

## ARMERIA, Willd.

A. MARITIMA, Willd. (Statice maritima, Miller).

2. Porlock Weir, etc.

9. Salt-marsh by St. Thomas' Head; Sand Point, Fl. Bristol. Uphill.

## PRIMULACEAE.

## HOTTONIA, L.

H. PALUSTRIS, L.

3. Staplegrove; Creech St. Michael, W. Watson. West Sedgmoor, and near Langport.

5. Abundant in rhines about Aller, Othery and Boroughbridge.

8. Shapwick; Meare, etc.

# PRIMULA, L.

P. VULGARIS, Huds. (acaulis, L.)

With white flowers near Feltham, dis. 3. White and purplish forms in woods near Temple Cloud, dis. 10, Fl. Bristol; other sports or monstrosities are mentioned.

Var. caulescens, Koch.

 Shaded banks near Enmore Hill, 1826, Herb. Clark (H. S. Thompson).

9. Weston Big Wood near Portishead, Fl. Bristol.

 Stockwood; Maes Knoll; Keynsham (Thwaites in Swete, Fl.); near Queen Charlton; between Yanley Lane and Barrow Gurney; Corston (D. Fry); frequent in pastures about West Harptree; permanent in cultivation, Fl. Bristol.

P. VERIS X VULGARIS.

- 3. ()rchard Portman, W. Watson. Hatch Beauchamp. West Monkton.
- Locksley Wood, Moorlinch, H. Slater. Between Somerton and Kingweston.

8. Common about Wells! (Miss Livett), Fl. Bristol.

Bruton, W. Watson.

- Field near Rudborough Encampment, 1850, Herb. Clark (H. S. Thompson). Walton- and Weston-in-Gordano (Mrs. Lainson); Canon's Wood near Walton (Miss Livett); Clevedon (W. E. Green); Yatton; Churchill; Ball Wood, Congresbury (Mrs. Gregory); Cleeve Combe, Fl. Bristol.
- Compton Dando and "Daffodil Valley"; Star (Miss Roper); field near Bourton Combe; near Stanton Wick; West Harptree; Murdercombe, Fl. Bristol.

[CYCLAMEN HEDERAEFOLIUM, Aiton is naturalised in private grounds on a hillside near Congresbury, dis. 9, Fl. Bristol.]

## LYSIMACHIA, L.

L. VULGARIS, L.

2. Swamp near the north-eastern end of Minehead Warren.

 Rather frequent in the Taunton district, W. Watson. By the Tone below Bradford, W. B. Butler. Near Bridgwater, H. S. Thompson.

5. Frequent about Chedzoy and Weston Zoyland.

 Rare in the neighbourhood of Wells (Miss Livett), Fl. Bristol.

9. Draycott Moor (C. Wall), Fl. Bristol.

10. Brislington (D. Fry); Saltford (C. Withers), Fl. Bristol. "The plant in the Saltford railway cutting is var. grandiflora, so named by Backhouse of York, who stated that the variety was well known to nurserymen. The difference between this and ordinary vulgaris appears to be that the paniele is terminal, instead of axillary and terminal: whilst the flowers are more showy, being larger and suffused with red at the bases of the

petals; D. Fry. I have seen this in Bristol gardens and heard it called 'Yellow Phlox.' A little colony has been for some time established by the roadside on Marchant's Hill, below Old Down." Fl. Bristol.

L. NUMMULARIA, L.

3. Between Lyng and Othery, W. B. Butler. Northmoor, between Maunsel and Athelney. About Hatch Beauchamp and West Hatch. Moors near Wiveliscombe.

4. Curland, W. Watson.

5. Common about Chedzoy and Middlezoy.

8. Burnham. Westhay, near Meare. Wedmore, Fl. Bristol.

 Markham Bottom; Wrington (Miss Roper); near Churchill, Honey Hall and Binsea Berrow, Fl. Bristol.

 Near Whitchurch (D. Fry); near Woollard; Stanton Drew; Stoke Lane; canal near Dunkerton and Camerton, Fl. Bristol.

L. NEMORUM, L.

1. East Anstey to Brushford. Winsford.

2. Culbone.

3. Pickeridge, W. Watson. Wrantage.

Staple Common, etc.
 Buckland St. Mary.

9, 10. Common and well distributed, Fl. Bristol.

## . GLAUX, L.

G. MARITIMA, L.

2. Porlock Weir!, etc., C. E. Salmon.

Frequent along the whole Somerset coast, W. Watson.

## . ANAGALLIS, L.

A. ARVENSIS, L.

In such places as Berrow sands and Steep Holm cliffs (G. C. Druce) this is surely native.

Var. carnea (Schrank).

- 3. Orchard Portman, H. Corder.
- 10. Nempnett, C. E. Salmon.

A. FOEMINA, Miller (coerulea, Schreb.).

- 3. Staplegrove, W. Watson. 4. Martock, G. W. Moody.
- 5. Clearing in Copley Wood, with Althaea hirsuta (the true plant), W. G. Paterson and C. E. Moss.

8. Bruton, W. Watson.

9. Portishead Station-yard, 1904 to 1910; Moreton, near Compton Martin (Dr. Gough); Berrow, 1882, Fl. Bristol.

10. Frome, W. Walson. Portbury (Misses Hill and Peacock): between Corston and Burnet (D. Fry); frequent about Stanton Prior (Rev. S. Browne); Midford (Herb. Flower, 1861); Conkwell, on the Wilts border, permanent (Miss Martin); waste ground near Twerton, 1902, Fl. Bristol.

A. TENELLA, L.

1. Moors near East Anstey and Brushford. Common on Exmoor in both districts 1 and 2, W. Watson.

2. Badgworthy Valley, W. Watson. Selworthy; Porlock, C. E. Salmon. Between Dunster and Timberscombe.

3. Triscombe, W. Watson. Moors near Wiveliscombe. 4. Near Chard Reservoir.

9, Between Wraxall and Tickenham; Weston and Clapton Moors; Walton Down (Miss Livett); Max meadows, Winscombe; Burrington (W. H. Wickes), Fl. Bristol.

10. Lower Failand; Nempnett (Dr. Gough); Lansdown (Miss Roper), Fl. Bristol.

## CENTUNCULUS, L.

C. MINIMUS, L.

1. Muddy cart-road near the Brockey River, between East Anstey and Brushford, 1907; very local.

# SAMOLUS, L.

S. VALERANDI, L.

2. Between Watchet and Blue Anchor, C. E. Salmon. Seacliff between East and West Quantoxhead, 1847, Herb. Clark (H. S. Thompson). Stolford.

3. Clean Moor, between Wiveliscombe and Bathealton.

5. Ford, near Stawell, H. Slater. Chedzoy. Weston Zoyland.

8. Bruton; Shapwick, W. Watson. Huntspill. Ashcot

peat moor, Fl. Bristol.

9. Clapton and Weston Moors; Tickenham Moor (D. Fry); Max meadows, Winscombe; Yatton, Fl. Bristol. Uphill. Very fine (up to 3 feet) in a swamp by Worle Station.

10. Lower Failand, Fl. Bristol. Nempnett, C. E. Salmon.

#### OLEACEAE.

# LIGUSTRUM, L.

L. VULGARE, L.

- 2. Hurlstone Point. Dunster. Blue Anchor. St. Audries.
- 3. Corfe. Pitminster. Stoke St. Mary. 4. Hatch Beauchamp. Staple Fitzpaine.
- 5. Dunball. Aller. Pitney. Compton Dundon.

8. Puriton.

9, 10. Rather common, Fl. Bristol.

"Not very common as a native," Fl Som. My experience differs; on the Lias it is abundant.

## APOCYNACEAE.

## VINCA, L.

V. MINOR, L.

 Lane about mid-way between East Anstey and Dulverton. Roadside hedges near Dulverton Station.

3. Buncombe Wood, etc., near Kingston; apparently native, in plenty, W. Watson. Pitminster. West Newton.

 Portishead Wood, with double flowers (H. J. Wadlow); lane and plantation on Backwell Hill; Brockley Combe; Tickenham Hill, with the white-flowered variety; Walton-in-Gordano; Congresbury (D. Fry), Fl. Bristol.

 Lane on Woollard Hill; wood and hedgebank, Portbury (Misses Hill and Peacock); lane between Litton and

Coley (R. V. Sherring), Fl. Bristol.

## GENTIANACEAE.

# BLACKSTONIA, Huds.

B. PERFOLIATA, Huds. (Chlora perfoliata, L.).

 On all the fields from Blue Anchor to Watchet, H. Slater. Railway banks, Washford. Williton. St. Audries to Kilve.

3. Stoke Hill!, W. Watson. Above Badger Street.

4. Carland, W. D. Miller. Staple Fitzpaine.

5. Alter.

8. Bruton; rare, W. Watson.

9. Wraxall Hill; Walton-in-Gordano, and downs towards Portishead; Tiekenham Hill; above Congresbury (D. Fry); on Mendip, in several spots; Worle Hill!; Uphill!; Brean sandhills!; Yarley Hill (Miss Livett), Fl. Bristol.

10. Pailand; Ursleigh Hill, near Pensford; Norton Malre-

ward; Lansdown, Fl. Bristol.

# ERYTHRAEA, Renealm (Centaurium, Hill).

# E. Centaurium, Pers. (Centaurium umbellatum, Gilib.).

1. Between East Anstey and Brushford.

Withycombe, Rodhuish, etc.; common, H. Slater. Hurlstone Point. Coast below Dunster. Blue Anchor.

3. Near Angersleigh, W. Watson. West Monkton. Buncombe Wood, Kingston. Cannington. Wiveliscombe.

5. Aller.

6. Chard Common, W. D. Miller. The form or var. capitatum, Koch is reported as follows:

5. Langport, W. Watson.

9. Broadfield Down; Brean Down; Sand Point, Fl. Bristol.

E. PULCHELLA, Fr. (ramosissima, Pers.).

2. Bossington, W. Watson. Between Watchet and Blue Anchor, C. E. Salmon.

4. Chard Reservoir, sparingly, 1907.

8. Tor Hill, Wells, 1883.

9. Stony warren above the Rectory Wood, and on the West Hill, Wraxall; Cadbury Hill and Walton-in-Gordano (Miss Livett), Fl. Bristol.

# GENTIANA, L.

G. AMARELLA, L. (G. axillaris, Wettst.).

2. Plentiful on the Lias, St. Audries.

 Thurlbear, W. B. Butler. Corfe, W. D. Miller, sp.
 Bruton, W. Watson—probably on Creech Hill, where it is plentiful! Arthur's Point and Pen Hill (Miss Livett), Fl. Bristol; also on Tor Hill!.

9. West Hill, Wraxall; Tickenham Hill, and behind Wraxall Court; Backwell Common; Chelvey Batch; coast towards Portishead; Worle Hill!; Uphill!; Dolebury; near Cheddar!; Priddy Nine Barrows; Beacon Hill, Fl. Bristol.

- Rocky bank by a road through Leigh Woods; Leigh Down; Upper Failand; Barrow Hill, Buckland Dinham (H. F. Parsons); Lansdown (Miss Roper); "whiteflowered plants are plentiful about Bath (Miss Peck)," Fl. Bristol.
- [G. CAMPESTRIS, L., must be expunged. Bradley Knoll is now in Wilts; Dr. Moss could only find there G. Amarella and var. praecox, Towns. (G. lingulata, C. A. Agardh, var. praecox), which is frequent on the chalk in W. Wilts.]

## MENYANTHES, L

M. TRIFOLIATA, L.

1. Between East Anstey and Brushford.

3. Slape Moor, between Wiveliscombe and Milverton. West Buckland, W. Watson.

4. Staple Common, ascending to 800 feet, W. D. Miller.

9. Under Tickenham Hill; formerly between Portishead and Clevedon (R. V. Sherring); roadside pond between Bickfield and Ubley Mill (Dr. Gough); pond in meadows north-west of Churchill; the Mineries; Blackdown, Fl. Bristol.

10. [Lost by drainage, at Leigh Woods, Fl. Bristol.]

[POLEMONIUM COERULEUM, L. (Jacob's Ladder) has been found as an escape by a stream at Vallis (H. F. Parsons), and in a coppice at Bathford (Withers), Fl. Bristol.]

#### BORAGINACEAE.

## CYNOGLOSSUM, L.

C. OFFICINALE, L.

2. Blue Anchor! .. C. E. Salmon. Dunster, W. Watson. Watchet, W. B. Butler. Williton.

5. Aller. Near Kingsdon.

- 9. Cadbury (Miss Livett); Walton- and Weston-in-Gordano Downs, Fl. Bristol.
- 10. Leigh Down, now very scarce; Beggar's Bush Lane, Fl. Bristol.

## ASPERUGO, L.

[A PROCUMBENS, L.

Portishead Station-yard, in quantity (Miss Peck), 1905. and abundant every year up to 1912, Fl. Bristol.
 Field east of Knowle, 1907; still at Twerton in 1897 and

1902, Fl. Bristol.]

## SYMPHYTUM, L.

S. PEREGRINUM, L. (asperrimum, auet., non Bieb.).

Alien, but now well established. June to August.

 Hadspen, W. Watson (named S. asperrimum at the British Museum Herbarium).
 Land Yeo stream, Flax Bourton and Wraxall; hedge

9. Land Yeo stream, Flax Bourton and Wraxall; nedge near the top of Belmont Hill; roadsides between

Wrington and Burrington, Fl. Bristol.

10. In large quantity on a streamside by Gatcombe Manor, Long Ashton (F. Samson); Oakford Valley; The Rocks, St. Catherine's, Bath, 1853 (Herb. Jenyns); Brass Knocker Hill, Bath (D. Fry), Fl. Bristol—"doubtless it was originally introduced from the Caucasus as a fodder plant."

S. OFFICINALE X PEREGRINUM.

In Journ. Bot., 1912, pp. 332-7, Mr. Cedric Bucknall gives a full account of the hybrid combinations between these species, found by him in one or other of the following stations:—by the Land Yeo near Gatcombe Manor, Flax Bourton, and Wraxall; Oakford Valley, near Bath; Warminster Road, between Bath and Monkton Combe.

- × S. DISCOLOR, Bucknall (S. officinale, a. ochroleucum × 

  peregrinum).
- × S. DENSIFLORUM, Bucknall (S. officinale, b. purpureum × < peregrinum).

## BORAGO, L.

B. officinalis, L.

8. Pilton Wood (Miss Livett, 1888), Fl. Bristol.

 Roadside, Tickenham Hill, 1906, one plant; roadside between Sandford and Winscombe (C. Bucknall, 1905 two plants), Fl. Bristol.

10. Roadside in Leigh Woods, 1905, two plants; Odd Down

Bath, 1902, three plants, Fl. Bristol.

# ANCHUSA, L.

[A. OFFICINALIS, L.

 Portishead Station-yard, several plants, 1905 to 1912 Fl. Bristol. A. SEMPERVIRENS, L.

2. Frequent near Minehead, Carhampton; Withycombe, etc., H. Slater.

3. Thurloxton.

- Roadside, Worle (Mrs. Gregory); Weston-super-Mare (St. Brody), Fl. Bristol. Roadside near Bleadon, W. D. Miller.
- Abbotsleigh and Hinton Blewett (Misses Cundall); St. Catherine's, Bath (S. T. Dunn), Fl. Bristol.

# LYCOPSIS, L.

L. ARVENSIS, L.

2. Near Crowcombe.

9. Steep Holm, G. C. Druce. Clevedon, W. Watson.

10. Failand; Saltford; Bishop Sutton; Houndstreet (D. Fry), Fl. Bristol.

Truly wild on the coast, I think.

# MYOSOTIS, L.

M. CESPITOSA, Schultz.

1. Brushford.

2. Dunster. Minehead. Bossington. Porlock Weir.

3. West Monkton. Wiveliscombe.

4. Chard.

8. Bruton, W. Watson.

9. Berrow Marsh!; Uphill!; Locking, Fl. Bristol.

- Bedminster Meads; Portbury; between Publow and Queen Charlton, and at Norton Hautville (D. Fry); Pensford (C. Bucknall); Downside Common, Edford, Fl. Bristol.
- M. SCORPIOIDES, L. (palustris, Hill).

2. Williton. Washford.

4. Chard Reservoir.

 Peat ditches at Edington, Ashcott, and towards Glastonbury, Fl. Bristol. Milton Clevedon.

9. Kenn Moor; Yatton; moors between Cheddar and

Wedmore, Fl. Bristol.

10. Keynsham and Pensford (D. Fry), Fl. Bristol.

Var. strigulosa (Reichb.).

1. Between East Anstey and Dulverton.

3. Nailsborne, near Kingston; Trull, W. Watson.

M. REPENS, G. d. D. Don.

1. Common on Exmoor: e.g. about East Anstey, Brushford, Exton, Winsford and King's Brompton.

2. Washford.

3. North Newton, W. Watson. West Monkton. Buncombe Hill.

8. Cole, W. Watson. Moors near Wells (Miss Livett), Fl. Bristol.

9. Tickenham: boggy springs on the slopes of Mendip, El Bristol

M. SYLVATICA, Hoffm.

Native. Moist woods, etc.; very rare. May to August.

1. By the Barle, a little above Dulverton Station, 1905; no doubt it also grows higher up the stream.

# M. ARVENSIS, Hill., var. umbrosa, Bab.

3. Near Taunton, W. Watson.

8. Bruton, W. Watson.

Hardly worth a varietal name; this was Babington's later view.

M. COLLINA, Hoffm.

3. Norton Fitzwarren; Stoke St. Mary, W. Watson.

5. Between Langport and Aller.

8. Bruton, W. Watson.

9. Portishead; Clevedon; Cleeve Foot; almost everywhere along the Mendip range; Uphill!, Fl. Bristol. Bleadon. Compton Bishop.

10. About Providence and Ashton Tump; Long Ashton Common; Failand; Queen Charlton; Corston (D. Fry); Lansdown and elsewhere on the Bath side, Fl. Bristol.

The expression "very common" in Fl. Som. only applies to two or three districts; outside these it seems to be quite local.

# M. VERSICOLOR, Sm.

1. Winsford.

Minehead Warren. Bossington to Porlock Weir.
 West Monkton. Cothelstone.

4. Near Castle Neroche.

8. Shapwick Moor.

- Hartcliff Rocks (Miss Roper); Flax Bourton; Walton-in-Gordano; Cadbury Camp; Clevedon; Brean Down! and Brean Sands!, Fl. Bristol. Steep Holm, G. C.
- 10. Ashton Tump; Ham Green; between Brislington and Keynsham; Stanton Drew, etc. (D. Fry); Stantonbury, Fl. Bristol.

# LITHOSPERMUM, L.

L. PURPUREO-COERULEUM, L.

3. "Near Taunton, 1883; G. Nicholson, sp." Ar. Bennett in litt. In Rev. D. P. Alford's Handbook it is said to grow on the Lias hills to the south; so Ray's record was correct.

5. Ham Hill, H. Corder. Very plentiful on the Lias above

Aller, extending for about a mile.

8. Mr. H. S. Thompson believes that Collins's station, though assigned to dis. 5, is identical with Clark's at Puriton Scars.

 Limeridge Wood, Tickenham (Miss Roper); Queen Wood, Winscombe (H. S. Thompson); Callow Wood, Rose Wood and King's Wood on Shuteshelve, Mendip, in profusion; border of wood above Rodney Stoke; Hutton; wood on Mendip near We'ls, Miss Livett.

#### L. OFFICINALE, L.

2. Blue Anchor.

3. Stoke St. Mary.

5. Near Somerton.

8. Quarry near Wells! (H. S. Thompson); West Horrington (Miss Livett), Fl. Bristol. Creech Hill, Bruton.

9. Wraxall; Tickenham Hill to Cadbury Camp; Chelvey Batch; Weston-in-Gordano; Weston-super-Mare (St.

Brody), Fl. Bristol.

- 10. Under Leigh Woods; between Abbotsleigh and Failand; Belmont Hill; between Stanton Drew and Chew Magna; between Stockwood and Keynsham, sparingly (D. Fry); between Chelwood and Houndstreet (C. Bucknall); in several places between Whatley and Nunney (Rev S. Laing); about Midford and Hinton Charterhouse, Fl. Bristol.
- L. ARVENSE, L.

5. Between Langport and Pitney.

9. Wraxall; Portishead Station-yard, Fl. Bristol.

 Garden weed, Brislington; Odd Down and Combe Hay, Fl. Bristol.

## ECHIUM, L.

E. VULGARE, L.

2. Porlock Weir.

3. Gotton Down, West Monkton, W. D. Miller

8. West Lydford, in the last few years; possibly introduced with railway ballast, Rev. W. G. Palerson.

 Portishead (Miss Livett); Worle Hill; sandy ground about Brean and Berrow, Fl. Bristol. Steep Holm, G. C. Druce.

10. Failand; railway cutting below Bristol, Fl. Bristol.

# CONVOLVULACEAE.

# CALYSTEGIA, Br.

C. SOLDANELLA, Br.

9. Kewstoke Bay, Fl. Bristol.

# CUSCUTA, L.

C. EUROPAEA, L.

8. Roadside, Butleigh, on a labiate, Herb. Clark, 1848 (H. S. Thompson).

10. Brislington; Newton St. Loe, Fl. Bristol.

C. EPITHYMUM, Murray.

2. Between Watchet and Blue Anchor, C. E. Salmon. Dunster deer-park; Withycombe Hill, etc., H. Slater.

3. Triscombe, W. Watson. 5. Aller Hill, W. B. Butler.

8. Godminster; The Ridge, near Bruton, C. E. Moss. Cole, W. Watson. A large patch on Galium verum, etc., near the light-houses at Burnham, 1888, Fl. Bristol.

 On labiates and bedstraws above Wraxall, 1906; on yarrow at Portishead (Miss Roper, 1906); rocky pasture above Cheddar, chiefly on wild thyme, 1905; sandhills in Kewstoke Bay, on or entangled with Rosa spinosissima and bedstraws (F. Samson, 1906), Fl. Bristol.

10. Batheaston (Herb. Jenyns, 1858), Fl. Bristol.

C. TRIFOLII, Bab.

Porlock Weir, C. E. Salmon.
 Near Low Ham, W. Watson.

8. I believe that I saw a patch of this species on the sandhills north of Burnham, June, 1907, (it was not yet in flower), on Lotus corniculatus, looking native.

 Clover-field near Pill, 1881; fodder-field between Abbotsleigh and Failand (Misses Cundall, 1897-8); cloverfield at Bathford (A. E. Burr, 1885), Fl. Bristol.

## SOLANACEAE.

# SOLANUM, L.

S. NIGRUM, L.

2. On the coast near Minehead, as well as in cultivated soil. Withycombe, H. Slater.

3. Staplegrove, W. Watson.

5. Weston Zovland.

8. Bruton, W. Watson.

9. Walton-by-Clevedon (D. Fry and W. E. Green); Portishead; shore near Woodspring; common about Westonsuper-Mare (Mrs. Gregory); Berrow!, Fl. Bristol.

10. Saltford (Miss Roper), Fl. Bristol.

# LYCIUM, L.

L. CHINENSE, Miller (not L. barbarum, L.).

2. Coast near Minehead.

9. Uphill; Berrow!; sea-bank below Clevedon (Miss Livett). Fl. Bristol.

10. Stanton Drew (D. Fry), Fl. Bristol.

Now too well established on the coast to be classed among excluded species.

# ATROPA, L.

A. BELLADONNA, L.

2. About twenty plants in Collins's Lilstock locality, 1913, H. Corder.

[3. Persists in a shrubbery at Hestercombe, W. D. Miller.]

9. Seen near Sand Point, Kewstoke, 1898, and in former years several times on Brean Down (F. A. Knight), Fl. Bristol.

10. Hedge by Water Lane, Failand (H. F. Levy, 1911), Fl.

Bristol.

## DATURA, L.

[D. STRAMONIUM, L.

8. A rare garden weed at Bruton, C. E. Moss. Rare in cultivated ground at Wells (Miss Livett), Fl. Bristol.

9. Rubbish heap at Walton-in-Gordano (Mrs. Gregory, 1900); several strong plants on the shore at St. Thomas' Head, Woodspring, 1888 to 1909, Fl. Bristol.

10. One plant in a lane leading from Publow to Ursleigh Hill

(D. Fry, 1887), Fl. Bristol.]

# HYOSCYAMUS, L.

H. NIGER, L.

 Waste ground, Bridgwater; Cannington, H. S. Thompson. Bishop's Hull, W. B. Butler. Pickeridge, above Corfe, W. D. Miller; persistent!

S. Burnham, H. S. Thompson.

 Walton Hill, Clevedon (H. S. Thompson); one in allotments, Wraxall (J. W. Eves, 1905); Woodspring shingle under St. Thomas' Head (Miss Roper); Uphill, Brean, and Berrow!, and by lanes leading to Brent Knoll, Fl. Bristol.

10. Knowle: Ashton Gate, Fl. Bristol.

## SCROPHULARIACEAE.

# VERBASCUM, L.

V. THAPSUS, L.

2. Bossington. Dunster. St. Audries.

3. Norton Fitzwarren, etc., W. Watson. Wiveliscombe. West Monkton. Cothelstone.

4. Hatch Beauchamp.

8. Bruton, W. Watson.

 Brockley Combe; Wrington; Hartcliff Rocks; Westonin-Gordano; Walton Down; Goblin Combe; Sidcot; Axbridge, Fl. Bristol. Berrow.

10. Railway banks between Bedminster and Bourton; Broad-

field Down, Fl. Bristol.

V. NIGRUM, L.

 Spontaneously in a garden at Bleadon, where it had not been cultivated (H. S. Thompson), Fl. Bristol.

10. One plant in a lane, Combe Hay (J. F. Hopkins, 1887),

Fl. Bristol.

V. VIRGATUM, Stokes.

 Permanent in a quarry, north of West Monkton Church; also in a small roadside quarry in the same parish, between Gotton and Hestercombe. Not known to have been cultivated.

8. Corn-mill between Bruton and Cole, C. E. Moss.

9. Some fine plants in All Saints' Churchyard, Weston-super-Mare (Mrs. Gregory, 1905), Fl. Bristol.

10. Whatley, near Frome (Rev. S. Laing), Fl. Bristol.

V. BLATTARIA, L.

2. Several plants in a field at Minehead, 1910, H. W. Pugsley.

Roadside between Wiveliscombe and Langford Bridge,
 1911. Shrubbery at Hestercombe, 1907, W. D. Miller!

 One plant in Chilton Polden Churchyard, 1911, H. Slater. By the path leading from Lower Leigh to Overleigh, in the field called Six Acres, Herb. Clark, 1829 (H. S. Thompson). On a wall at Ashcott for many years (H. S. Thompson), Fl. Bristol.

Portishead (J. N. Duck, 1852); in the Station-yard, 1904; down above Weston-in-Gordano (Miss Livett); between Milton and Worle, 1890, and at Kewstoke (Mrs. Gregory); two plants on walls at Worle, towards Woodspring (D. Fry. 1884); Draycott (Miss F. M.

Ruddock and W. F. Miller), Fl. Bristol.

 Frequent on the railway cutting near Brislington, and along the cutting near Fox's Wood quarries; wall in Saltford village, 1902-8; Corston (D. Fry), Fl. Bristol.

## LINARIA, Hill.

L. CYMBALARIA, Miller, flore albo.

10. Belmont Hill; Compton Dando Churchyard; and walls at Combe Hay, Fl. Bristol.

L. ELATINE, Miller.

3. Occasionally in fields, West Monkton.

 Happerton Farm, near Easton-in-Gordano (Miss Agnes Fry); Walton-by-Clevedon (D. Fry); near Congresbury; on Mendip above Rodney Stoke; Easton, near

Wells (Miss Livett), Fl. Bristol.

10. Cultivated land east of Yanley Lane, and in stubble-fields between the Bridgwater Road and Dundry, 1882 to 1900; Bishport (T. B. Flower, 1840); between Keynsham and Stockwood; near Whatley and Asham (Rev. S. Laing); between Twerton and Englishcombe, Fl. Bristol. Nempnett, C. E. Salmon.

L. SPURIA, Miller.

2. Withycombe, H. Slater.

 Compton Dundon. Ride in Copley Wood, between Somerton and Kingweston.

8. Street, H. S. Thompson. Bruton, W. Watson.

About Bedminster and Knowle (J. F. Hopkins); Bishport (T. B. Flower, 1840); Clutton (D. Fry); between Twerton and Englishcombe; near Whatley and Asham (Rev. S. Laing), Fl. Bristol. Nempnett, C. E. Salmon

L. REPENS, Miller.

2. Skilgate, Mrs. McAlister, sp.

10. In two localities near Bath (A. E. Burr, 1902), Fl. Bristol.

L. MINOR, Desf. (viscida, Moench).

3. Almost everywhere on the Great Western main line;
Hillfarrance, W. D. Miller.

Creech Hill, Bruton; Great Western Railway, in districts
 9, 10, C. E. Moss. Highbridge Stations, Fl. Bristol.

9. Flax Bourton; Weston-super-Mare, since 1847; Brean

Down; fields above Draycott, Fl. Bristol.

 Railway sidings at Ashton Gate; railway at Brislington and Saltford (D. Fry); Keynsham; railway ballast at Hallatrow and Radstock; Weston near Bath, Fl. Bristol. Nempnett, C. E. Salmon.

# ANTIRRHINUM, L.

A. MAJUS, L.

9. Backwell; Nailsea; old quarry at Chelvey (Rev. E.

Foord-Kelcey), Fl. Bristol.

 Walls at Bedminster and Long Ashton; Portbury (Misses Hill and Peacock); old walls about Bath (Fl. Bathon.), Fl. Bristol.

I have no notes from the other districts.

A. ORONTIUM, L.

[3. Has occurred as a casual in my garden at West Monkton.]

Field near Whitchurch (J. H. Cundall, 1850), Fl. Bristot.
 To one who has lived in S.E. England the scarcity of this plant in the West is surprising.

## SCROPHULARIA, L.

S. AQUATICA, L. The only form that I have hitherto seen in the county is what has been identified elsewhere in Britain as S. cinerea, Dumort.

# MIMULUS, L.

M. Langsdorffii, Donn. (M. luteus, auct., non L.).

 Near Exford, W. Watson. Winsford. By the River Haddeo.

2. Oare Water, Malmsmead, C. E. Salmon. With regard to the Roadwater station, Mr. H. Slater writes:—"I was told that it was originally introduced at Chargot, above Luxborough, in some fishponds." "Getting common by every stream in the West," W. D. Miller in litt.

3. Below Cockercombe, H. Corder. By the brook below

Combe. West Monkton.

Evidently fast increasing, towards the Devonshire border. The beautiful colour-variation with large red-brown blotches on the corolla-lobes occurs by streams on Exmoor. From the account in De Candolle's Prodromus, his M. guttatus appears to include both our forms.

M. MOSCHATUS, Douglas.

Alien, but now quite naturalised in a few stations. Wet places; very rare. June to September.

2. Head of Holford Glen, H. Corder. Crowcombe, A. Lyons (communicated by Mrs. Gregory); I understand that it grows in both dis. 2 and 3.

8. On the peat of Ashcott Heath, far from cultivation (F.

Samson, 1909), Fl. Bristol.

# SIBTHORPIA, L.

S. EUROPAEA, L.

1. Near King's Brompton.

2. Near Dunster!, Miss G. Lister. Horner; plenty in wet fields between Langridge and Luxborough, H. Slater. Badgworthy Valley, W. Watson.

"Certainly not rare in 1 and 2," W. Watson in litt.

## VERONICA, L.

V. HYBRIDA, L.

Native. Limestone rocks; extremely rare. June to August. 10. On the Leigh Woods side of the Avon, 1912, Miss Ida M. Roper, sp. A welcome addition to the county list.

V. OFFICINALIS, L.

3. Cothelstone and other places on the Quantocks.

4. Staple Common.

8. Rare about Bruton, W. Watson.

V. MONTANA, L.

2. Oareford, C. E. Salmon. Culbone.

West Monkton. Woods below Hatch Beauchamp.
 Wooded places, Staple Common.

5. High Ham. Near Kingweston.

6. Hills between Crewkerne and Chard, W. Watson.

9. Flax Bourton: Limeridge Wood, Tickenham; Weston-

super-Mare, Fl. Bristol.

10. Stockwood Lane; Failand; Pill (Miss Roper); Charlton Woods, Portbury; Stanton Drew; Bishop Sutton; Nether Stowey; Stantonbury; East Harptree (Herb. Lawrence), Fl. Bristol.

V. SCUTELLATA, L.

1. Beer Moors, near East Anstey. King's Brompton.

3. North Curry, W. Watson.

- 8. Near Edington Station (Herb. Clark, 1859); still frequent on the peat, Fl. Bristol.
- 10. Downside Common, Edford (C. Bucknall); marsh at Oakford near the Rocks, Bath (Herb. Flower, 1856), Fl. Bristol.
- V. Anagallis-Aquatica, L. (aggregate).

2. Stolford.

3. Near North Newton. Between Bathpool and Rowbarton.

4. Chard Reservoir.

5. Dunball.

- 8. On the marshlands about Highbridge! and Wells, Fl. Bristol.
- 9. Ditches near Portishead and Tickenham; pond near Woodspring Priory; dune marsh near Berrow!; Yatton, etc., Fl. Bristol.

10. Stanton Drew (D. Fry); Norton Hautville, Fl. Bristol. Our usual plant is probably V. aquatica Poiret; but I do not yet know how to distinguish the two segregates which Professor Glück recognises in Britain.

# EUPHRASIA, L.

Since Mr. Murray wrote his book, the study of our native eyebrights has made great progress. I have paid considerable attention to the Scottish plants, but have had too little opportunity of studying those of Somerset. Broadly speaking, I believe that the segregates are true species; though one or two of them, when untypical, are hard to separate. In regard to the numerous citations from Fl. Bristol it may be mentioned that I have rarely seen specimens.

E. Rostkoviana, Hayne (restricted E. officinalis, L.?).

1. Moors, etc., between East Anstey and Brushford.

2. Horner, W. Watson.

4. Staple Common.

8. Abundant on the peat moors!, Fl. Bristol.

9. Wavering Down and Crook's Peak (Mrs. Gregory and C. Bucknall); Burrington Combe (Mrs. Gregory); Rowberrow on Mendip; Cheddar, Fl. Bristol. 10. Broadfield Down, towards Winford (C. Bucknall, 1898);

Downside Common, Edford, Fl. Bristol.

E. FENNICA, Kihlman.

1 or 2. In the Botanical Exchange Club Report for 1912, p. 169, Mr. G. C. Druce writes that he gathered this many years ago on Exmoor, Somerset; the name was suggested by Dr. Lindman, and has been corroborated by Dr. von Wettstein. It is a small-flowered form, with long glandular hairs. Not mentioned in Wettstein's Monograph (1896); it was apparently described later. I have not seen this.

E. BREVIPILA, Burnat & Gremli.

8. Plentiful on the peat moors, Fl. Bristol.

In mowing grass on Tining's Farm on Mendip, and towards Priddy; pastures above Draycott, 1904; St.
Thomas' Head, Woodspring, very diminutive plants
(C. Bucknall), Fl. Bristol.

10. Failand; Dundry; Emberrow and Eaker Hill (Miss

Roper); Stoke Lane, Edford, Fl. Bristol.

Var. subeglandulosa, Towns. (so far as I am aware, this was never formally published or described).

8. Dry peat moors near Shapwick Station, Fl. Bristol.

10. Whitchurch (Miss Roper), Fl. Bristol.

E. KERNERI, Wettst.

2. Roadside, Oareford, 1899, C. E. Salmon (teste Townsend).

8. Sandy coast north of Burnham (Mrs. Gregory), Fl. Bristol.

9. Cheddar (Rev. W. H. Purchas, 1853, and Mrs. Gregory, 1900); boggy ground on Rowberrow Down; Shipham Bottom, Fl. Bristol.

E. KERNERI X ROSTKOVIANA.

9. Cheddar Gorge (Mrs. Gregory, 1900); Rowberrow Bottom, at the base of Blackdown (C. Bucknall), Fl. Bristol. Named by Mr. Townsend.

E. BOREALIS, Towns.

9. Barrow Hill, Kewstoke Bay, and Berrow (Miss Roper); above Cheddar, Fl. Bristol. Plentiful in grassy slopes on limestone between Worle and Kewstoke.

10. Failand (C. Bucknall); Lansdown (Miss Roper), Ft.

Bristol.

E. BOREALIS X NEMOROSA. Failand, with the parents (Miss Roper), Fl. Bristol.

E. STRICTA, Host.

2. Luxuriant and typical on a hillside at Bossington, H. W. Pugsley.

 Peat moors along the railway between Edington and Shapwick Stations (Mrs. Gregory and C. Bucknall, 1900), Fl. Bristol.

 By cart-tracks in the woods between Cleeve and Congresbury; Worle Hill, and near Weston-super-Mare Station (Mrs. Gregory, 1900), Fl. Bristol.

10. Queen Charlton; Claverton Down near Bath, Fl. Bristol.

# E. NEMOROSA, II. Mart.

1. Near East Anstey.

2. Porlock Weir; Malmsmead, C. E. Salmon.

3. Buncombe, near Kingston, W. Watson. Wiveliscombe.

5. Abundant on the Lias about Somerton and Compton Dundon.

9. Cadbury Camp; Congresbury, 1884; Axbridge (specimen figured in Townsend's Monograph); Churchill; Cheddar; Berrow sand-dunes, Fl. Bristol. Compton Martin Wood, C. E. Salmon.

10. Between Providence and Tyntesfield; Stanton Drew,

Fl. Bristol.

Mr. White says :- "The commonest of the 'species'; often

of large growth and abundant in many places."

Mr. Townsend often so named plants which agree much better with Wettstein's *E. curta*, var. *glabrescens*; according to the latter authority, *E. nemorosa* should be quite glabrous, and some forms of *glabrescens* connect the two.

E. GRACILIS, Fr.

- Badgworthy Valley, 1898, C. E. Salmon. This should prove to be frequent on Exmoor; but there is no other record.
- E. SCOTTICA, Wettst. (E. paludosa, Towns., non Br.)

1. Wet moors between East Anstey and Brushford.

2. Badgworthy Valley, 1898, C. E. Salmon (teste Townsend).

E. MINIMA, Jacq.

- 1 or 2. Discovered in August, 1908, by Miss Helen Saunders on Exmoor, close to the Devon border, and by Miss C. E. Larter, about two miles away; Mr. W. P. Hiern found it in a third station. The elevation was from 1200 to 1400 feet, and the flowers were yellow. Mr. C. E. Salmon had, however, collected it on the hills above Porlock Weir, dis. 2, ten years earlier. I suspect that a peculiar plant which I found in 1907 near East Anstey, with bluer corollas, may also be referable to this species.
- E. CURTA, Fr.

9. Markham Bottom (C. Bucknall), Fl. Bristol.

10. Eaker Hill; and Crox Bottom, Gurney Slade (Miss

Roper), Fl. Bristol.

I have seen plants approaching the very hairy northern type, in the south of England; but those which I sent to Prof. Wettstein were referred to the variety.

Var. glabrescens, Wettst.

- "On many exposed downs and upland pastures in the district," Fl. Bristol.
- 1. Between East Anstey and Brushford.
- 3. Bathealton.
- 8. Burnham.
- 9. Uphill; Brean Down!; Cheddar!, and elsewhere, Fl. Bristol. Berrow sandhills.
- 10. Lansdown, Fl. Bristol.

E. CURTA X ROSTKOVIANA.

 Rowberrow Bottom, at the base of Blackdown (C. Bucknall), Fl. Bristol; named by Mr. Townsend.

## BARTSIA, L.

B. ODONTITES, Huds. (Odontites rubra, Gilib.).

3. West Monkton. Probably common enough; but, as Mr. White remarks, there are many intermediates.

Var. serotina (Dumort.), Reichb.

3. Milverton.

8. Plentiful about Bruton and Castle Cary.

Var. divergens (Odontites divergens, Jord.)?
Mr. W. Watson believes that he has seen this at 3. Pitminster and 8. Bruton. I do not know it.

# PEDICULARIS, L.

P. PALUSTRIS, L.

1. Between East Anstey and Brushford.

2. Badgworthy Valley, W. Watson.

3. Moors near Wiveliscombe.

4. Staple Common.

Downside Common (D. Fry), Fl. Bristol.

P. SYLVATICA, L.

- 1. Between East Anstey and Brushford.
- 2. Culbone.
- 3. Hills above Corfe and Pitminster. Near Wiveliscombe
- 4. Staple Common.

6. Chard Common.

S. Masbury; Bruton, rare, W. Watson.

9. Backwell Hill; Walton Valley and Down; near Cleeve Toot; Max meadows, Winscombe, Fl. Bristol.

10. Woodsides above Portbury, Fl. Bristol.

# MELAMPYRUM, L.

M. PRATENSE, L.

1. Hawkridge and Barle Valley, W. Watson.

2. Stogumber.

- 9. Portishead Wood; Weston Big Wood; Draycott, Fl. Bristol.
- 10. St. Anne's, Brislington (Herb. Cundall, 1849), Fl. Bristol.

Var. latifolium, Schueb. & Mart.

9. Near Yatton (Mrs. Gregory, 1892), Fl. Bristol.

Var. hians, Druce.

1. Hartford Bottom, Haddeo Valley.

 Extremely plentiful about Porlock Weir and Culbone Cliffs!; also about Oareford and Malmsmead, and in Homebush Wood Valley, behind Porlock, C. E. Salmon. Horner Woods, C. E. Salmon.

This beautiful plant is the 'var. montanum' of Fl. Som.;

probably Mr. Murray had only seen dried specimens.

## OROBANCHACEAE.

## OROBANCHE, L.

O. MAJOR, L. (O. Rapum-genistae, Thuill.).

2. Withycombe, 1906, H. Slater.

3. Gotton Copse, West Monkton, 1907, W. D. Miller.

O. ELATIOR, Sutton.

9. One plant at Portishead (Mrs. Gregory, 1904), Fl. Bristol.

O. HEDERAE, Duby.

 Swallow Cliffs on Sand Point (Mrs. Gregory); Worlebury Camp (Miss Roper), Fl. Bristol.

Leigh Woods, both on rock slopes and limestone walls;
 wall at Ham Green, Fl. Bristol.

O. MINOR, Sm.

 Staplegrove, W. Watson. West Monkton (clover-field), 1910. 5. Middlezov, W. Watson.

8. Bruton, W. Watson. Wells (Miss Livett), Fl. Bristol.
9. Tickenham Hill; Weston-in-Gordano; Walton-in-Gordano (Miss Livett); Sandford Hill (H. S. Thompson): shore near the Sanatorium, Weston-super-Mare; Brean Sands, Fl. Bristol.

10. Failand Hill (Misses Cundall); Stanton Drew (D. Fry); near Chew Magna (Miss Roper): Midsomer Norton

(Miss Livett), Fl. Bristol.

O. AMETHYSTEA. Thuill.

9. Again gathered by Miss Livett on Brean Down, Fl. Bristol. The cumulative evidence of its occurrence is conclusive

# LATHRAEA, L.

L. SQUAMARIA, L.

3. Woodlands, south of Pitminster.

9. Wood above Weston-in-Gordano: Cleeve: woods above Congresbury; Queen Wood near Axbridge (H. S. Thompson); Cheddar (C. Wall); Ubley (Dr. Gough);

Rodney Stoke (C. Bucknall), Fl. Bristol.

10. Charlton Woods near Portbury; between Dundry and Chew Magna: Cranmore (Miss Livett); lane near Fortnight: Prior Park enclosures (noticed before 1834). Fl. Bristol.

## LENTIBULARIACEAE.

## UTRICULARIA, L.

U. VULGARIS, L.

- 3. Abundant in ditches on Northmoor, between Maunsel and Athelney. Near North Curry, W. Watson.
- 5. Ditches near Stawell, H. Slater.

8. Wedmore, Fl. Bristol.

9. Kenn Moor; Clapton and Weston Moors; Nyland, Fl. Bristol.

U. MAJOR, Schmidel (neglecta, Lehm.).

Native. Peaty moors; very rare. August, September. 8. In pools formed by turf-cutting, south-east of Shapwick Station (D. Fry and J. W. White, 1902), Fl. Bristol. Tadham Moor, below Wedmore, 1913, J. W. White.

A valuable addition; it may be found in other parts of Somerset, if carefully looked for.

U. MINOR, L.

5. Mr. H. Slater cannot find this, near Stawell.

8. Ditch near Shapwick Station (C. Bucknall), Fl. Bristol.

II. INTERMEDIA, Hayne.

9. A flowerless plant from a ditch on Clapton Moor found by Mr. White in 1894 was published under this name in Journ. Bot., 1901, with the Rev. E. F. Linton's concurrence; but it has since been withdrawn as too doubtful. Prof. H. Glück, however, finds no difficulty in determining U. intermedia and U. ochroleuca, R. Hartman from foliage alone; and it is pretty sure to have been one of these (ochroleuca grows in Hants and Dorset).]

## PINGUICULA, L.

P. VULGARIS, L.

- 8. Near Shapwick Station (Mrs. Gregory); Walton Heath near Glastonbury, abundant in 1886 (D. Fry); and noted, 1901-6, by Dr. C. E. Moss as an occasional peat moor species, Fl. Bristol.
- 10. Now lost through drainage near Gurney Slade, Fl. Bristol.

P. LUSITANICA, L.

 Beer Moors, etc., between East Anstey and Brushford. Not uncommon in the Exmoor districts, 1 and 2, W. Watson.

4. Mount Fancy, Staple Fitzpaine, W. D. Miller.

8. Plentiful a short distance south of Shapwick Station (Mrs. Gregory), Fl. Bristol.

## VERBENACEAE.

# VERBENA, L.

V. OFFICINALIS, L.

 One plant, Withycombe; "all I saw in the district," H. Slater.

5. Chedzoy, H. S. Thompson.

8. Bruton, W. Watson.

 Portishead; Weston-in-Gordano (D. Fry); Wraxall; Stone Edge Batch, Walton Down; Winscombe (H. S. Thompson), Fl. Bristol.

10. Portbury; Timsbury; Peasedown, Fl. Bristol.

141

#### LABIATAE.

### MENTHA, L.

M. ROTUNDIFOLIA, L.

2. West Luccombe, with *Melissa*, hardly native; Horner Water, looking wild, *C. E. Salmon*. I cannot understand the Hurlstone Point record in *Fl. Som.*, as there is certainly no field "just under" it; but the plant does grow in profusion near the stream below Bossington, not far off, and appears to be indigenous.

9. Hedgerow bounding a croft, north of Shipham, Fl. Bristol.

M. ALOPECUROIDES, Hull (M. rotundifolia, Sole, non L.).

Native; but hitherto only in one locality. August to October.

- 2. Below Bossington in good quantity, 1907. Associated with M. rotundifolia; M. aquatica grows close by, and I believe it to be a hybrid between them, as suggested by Rev. E. F. Linton (not à propos of this particular case). A form also occurs there which is neither good alopecuroides nor good rotundifolia, and seems to be a mongrel product of a cross back with the latter, which it more closely approaches.
- M. LONGIFOLIA, Huds. (M. sylvestris, L.).

8. Shapwick, W. Watson.

 Weston-super-Mare (St. Brody); wet roadside at Portbury, 1881, but since destroyed (now also lost at Waltonin-Gordano), Fl. Bristol. Roadside green, a little east of Berrow village; var. nemorosa, I believe, from its

aspect under cultivation.

10. A few on both banks of the Chew close to Publow Church, and more abundantly lower down the river at intervals for a considerable distance, looking thoroughly native (D. Fry); also lower down towards Chewton Keynsham; bank of Avon in Newton Mead opposite Kelston (Herb. Flower, 1849); Englishcombe (Miss Martin); Shrowe, East Harptree (Herb. Lawrence); Midford (A. E. Burr), Fl. Bristol.

What is meant by 'var. villosa' does not appear; it is given in Fl. Bristol as the name in Herb. Flower for the Ashton Lodge to Tadwick plant, and (teste J. G. Baker) near Bath, T. F. Inman. Perhaps var. mollissima was intended.

M. LONGIFOLIA × SPICATA ?

8. By a brook below Batcombe, August, 1913; one large and one small patch. Mr. Arthur Bennett suggested the name; the scent is like that of *spicata*, and the

leaves (glabrous above, thinly hairy on the nerves below) shew its influence: but the villous calyx-lobes and the externally hairy corollas, etc., point to a longifolia origin. Doubtless an escape, as M. aquatica was the only species seen near it.

[M. SPICATA, L. (viridis, L.)

 Cheddar, as an alien (Dr. C. E. Moss), Fl. Bristol. Roadside, a little east of Berrow village.

10. Streamside by a wood at Whatley, not flowering (Rev. S.

Laing), Fl. Bristol.]

M. PIPERITA, L. (M. aquatica  $\times$  spicata?).

1. Hartford, in the Haddeo valley; I think that a hybrid or mongrel with M. arvensis grows with it.

2. Bossington. Alcombe, H. W. Pugsley.

3. Cothelstone, W. Watson.

- Roadside waste near Portbury (Miss Roper, 1904); by the Cheddar Water (Herb. Lawrence, 1851), Fl. Bristol.
- Shrowle, East Harptree, 1912, C. E. Salmon. Now lost at Woollard, Fl. Bristol.
- M. AQUATICA, L. (hirsuta, Huds.).

Var. denticulata, H. Braun (M. denticulata, Strail).

- 10. Plentiful by the stream in Crox Bottom, Gurney Slade, Fl. Bristol. "Much less hairy than the type. Leaves broadly oval, remarkably blunt, all subcordate at the base, feebly toothed." Mr. White adds that "the var. subglabra, Baker, with leaves glabrous except on the principal veins beneath, has been several times reported."
- M. CITBATA, Ehrh. (placed as a variety of M. aquatica in Lond. Cat.).

Denizen. Most rare. August, September.

5. "Between Bridgwater and Street, Rev. J. C. Collins,"

New Bot. Guide Suppl. (quoted in Fl. Bristol).

- On Mendip, for fifty yards or so along a grassy roadside not far from Priddy Nine Barrows and the Miners' Arms, at 850 feet (1905), Fl. Bristol. A full account of the plant is given.
- M. AQUATICA  $\times$  ARVENSIS (M. verticillata, Huds.; M. sativa, L.).

1. Haddeo Valley.

2. Minehead. Bossington.

3. Cothelstone, W. Watson. Triscombe. Between West Monkton and Kingston. Near Wiveliscombe.

8. Bruton, W. Watson. Catcott Burtle, Fl. Bristol.

- 9. Yatton; Berrow!; Rowberrow and Blackdown, Fl. Bristol.
- Long Ashton; Keynsham; between Publow and Chewton Keynsham; and near Queen Charlton (D. Fry); Portbury; Whatley near Frome (Rev. S. Laing), Fl. Bristol.

Form M. paludosa, Sole.

 Weston near Bath; by the Chew, Compton Dando, Fl. Bristol.

Form subglabra, Baker (as a variety of M. sativa).

9. Yatton (D. Fry), Fl. Bristol.

A very variable hybrid; mongrels are, I believe, not uncommon.

M. AQUATICA × LONGIFOLIA (M. palustris, Sole; M. pubescens, auct. angl., an Willdenow?).

2. Stream at Alcombe, 1910, H. W. Pugsley.

8. "In old ditches at Glastonbury, Wedmore, Burtle and King's Sedgemoors, plentifully." Sole, British Mints.

10. "In Claverton Wood and at Wyck," Fl. Bathon.

Form M. hircina, Hull.

"At Lyncombe Spa, and other wet places about Bath," Sole.

The plants have apparently vanished from these old stations.

M. RUBRA, Sm. (M. aquatica × arvensis × spicata, according to Mr. Druce's List).

 Clevedon (D. Fry); abundant by the green lane in Rowberrow Bottom; upper part of Long Wood near Charterhouse-on-Mendip, a little below the farmstead; in the Yeo, close to Compton Martin (Dr. Gough), Fl. Bristol.

- 10. Bedminster (Swete, Fl.); roadside near Portbury Station; by the Chew at Compton Dando; by the old coal canal at Midford, Fl. Bristol.—"Our rubra is a big strong plant running to four or five feet high, almost glabrous, with conspicuous bright red flowers and dark purplish foliage. Its scent is coarse and disagreeable, very unlike that of the kindred species. I have never seen it in gardens about Bristol."
- M. GENTILIS, L. (M. arvensis × spicata, in Mr. Druce's List).
  10. Lane under Dundry towards Bishport (Thwaites, 1843, in Herb. Stephens); rough field between Corston and Saltford (D. Fry, 1889 to 1896), probably now lost, Fl. Bristol.

### M. ARVENSIS, L.

Var. agrestis (Sole).

2. Near the stream below Bossington Mr. White has not met with it in his area.

Var. praecox (Sole).

10. Oatfield near Corston (D. Fry, 1889), Fl. Bristol.

Var. Allionii (Boreau).

A very tall form, probably this, by the Avon above Keynsham (D. Fry, 1886), Fl. Bristol.

# LYCOPUS, L.

L. EUROPAEUS, L.

 Dunster; near Horner, C. E. Salmon. Porlock Weir. Bossington. Kilve.

3. Taunton, W. Watson. Pondside, Hestercombe.

4. Chard Reservoir.

8. Bruton, W. Watson. Burnham, Fl. Bristol.

 Ditchbanks in the flats below Portbury Church; Nailsea; Tickenham; Kenn; Kingston Seymour; Lympsham, etc., Fl. Bristol.

10. Hallatrow; Hinton Blewett, Fl. Bristol.

# ORIGANUM, L.

O. VULGARE, L.

3. Rock Hill above Wrantage, W. B. Butler

5. Aller.

8. Creech Hill, Bruton.

9. Wraxall and Stone Edge Batch; Wrington; Cleeve; Axbridge!; Draycott!; Banwell; Loxton; Worle; Hutton, etc., Fl. Bristol.

10. Hinton Blewett; Great Elm, Fl. Bristol.

The white-flowered form (var. albiflorum, Lejeune) has occurred at Priddy Nine Barrows (850 feet) and Rowberrow, Fl. Bristol.

Var. megastachyum (Link).

 On the southern rocks of Cheddar Gorge (Rev. A. Ley), Fl. Bristol.

# THYMUS, L.

T. ovatus, Miller (T. Chamaedrys, auct. angl., non Fr.)

3. Blackdown, W. Watson.

4. Staple Fitzpaine.

9. Stone Edge Batch near Tickenham (Miss Livett); Uphill (G. C. Druce); Wraxall Hill, Fl. Bristol.

10. Leigh Wood (Rev. W. W. Spicer, 1868); Warleigh Common (W. M. Rogers), Fl. Bristol.

#### CALAMINTHA, Lam.

C. Acinos, Clairv. (arvensis, Lam.).

9. Backwell Hill and Chelvey Batch; Barrow Hill; Westonin-Gordano; Hutton Combe (Mrs. Gregory); Burrington Combe; Dolebury, Fl. Bristol.

10. Holwell and Whatley (Rev. S. Laing), Fl. Bristol,

C. MONTANA, Lam. (officinalis, Moench). 2. Porlock!, W. Watson. Bossington.

3. Stoke St. Mary; between Hestercombe and Taunton. W. Walson. Durston. West Monkton. North Petherton. Bridgwater.

8. Bruton, W. Watson.

9. Wraxall Hill; Weston- and Walton-in-Gordano; Banwell Hill; Christon; Purn Hill, Bleadon!; Axbridge!; Shipham, Fl. Bristol.

10. Under Leigh Woods; Abbotsleigh; between Stanton Drew and Pensford (D. Fry); Mells; Great Elm, Fl.

Bristol.

Var. Briggsii, Druce.

9. Base of the Court Hill, Clevedon, Fl. Bristol.

# MELISSA, L.

M. OFFICINALIS, L.

2. West Luccombe, C. E. Salmon. Abundant by a roadside near Selworthy; copse at Bossington, H. W. Pugsley.

3. Staplegrove, W. Watson. Between Milverton and Batheal-Wood-border, Stoke St. Mary. West Hatch. ton. West Monkton. Cheddon Fitzpaine. [Extinct at Wembdon, H. S. Thompson].

8. By farm buildings at Studley Hill near Shepton Mallet

(Miss Roper, 1910), Fl. Bristol.

9. Flax Bourton (W. E. Green and Mrs. Sandwith); Portishead Station-yard (Miss Roper, 1909); hillside near Cheddar Cliffs (Herb. Lawrence, 1853); Wookey Hole (Miss Livett), Fl. Bristol.

10. Beggar's Bush Lane (Misses Cundall); Charlton Woods

Failand Hill (Misses Hill and Peacock); wall at Salt-

ford; Radford; Dunkerton, H. Bristol.

Often only single plants occur. I am told that bee-keepers used to rub the inside of their hives with it, when taking swarms; this may account for its comparative frequency.

# SALVIA, L.

S. VERBENACA, L.

2. Dunster Churchyard, H. W. Pugsley. Blue Anchor.

5. All over the neighbourhood of Stawell, H. Slater. Aller.

9. Between Portishead and Weston-in-Gordano; Wraxall; Worle Hill!; on several of the lower slopes of Mendip, Fl. Bristol. Bleadon.
10. Near Keynsham; Midford, Fl. Bristol.

[S. VERTICILLATA, L. An increasing alien.
9. Field above Weston-in-Gordano (F. Samson, 1910); Portbury Station (C. Bucknall, 1905); Portishead Station-yard, seen repeatedly since 1900, Fl. Bristol.

10. Fox's Wood railway sidings, Brislington; disused quarry near Twerton (S. T. Dunn), 1897 to 1904, Fl. Bristol.]

### NEPETA, L.

N. CATARIA, L.

3. By the Friends' Burying Ground near Taunton, Herb Clark, 1827 (H. S. Thompson)-in West Monkton parish, now lost.

4. Staple Fitzpaine.

8. Between Knowle and Dunball, H. S. Thompson.

9. Tickenham Hill; Portishead Station-yard; Axbridge (Herb. Lawrence, 1852); Weston-super-Mare (F. J. A. Hort, 1847), Fl. Bristol.

 Between Keynsham and Chewton Keynsham, and be-tween Ursleigh Hill and Compton Dando (D. Fry); near Twerton, and between Twerton and Englishcombe (Miss Peck), Fl. Bristol.

### SCUTELLARIA, L.

S. GALERICULATA, L.

3. Norton Fitzwarren, W. Watson. Orchard Woods, W. B. Butler. Bathpool. Hestercombe.

8. Aller Moor, Fl. Bristol.

9. Tickenham; in the Walton Valley on Clapton Moor, etc.; Max Bog near Winscombe; Berrow!, Fl. Bristol.

10. Keynsham; under Failand Hill, Fl. Bristol.

S. MINOR. Huds.

1. Beer Moors, etc., near East Anstev.

2. Selworthy, C. E. Salmon.

3. Cockercombe.

8. Kingswood Warren, near Bruton, C. E. Moss.

9. Bogs on Blackdown, Fl. Bristol.

10. Abundant about Beacon Hill, Fl. Bristol.

# PRUNELLA, L.

P. VULGARIS, L., flore albo.

6. Chard, W. D. Miller.

9. In the short turf of the coast downs between Clevedon and

Walton Bay, Fl. Bristol.

10. Greyfield Wood, Hallatrow, Fl. Bristol.-" The corolla in this variation is snow-white, never cream-coloured as with the next species."

P. LACINIATA, L.

Native. Very rare: only on limestone, and almost confined to the Mendips, between 550 and 600 feet. June, July, or later.

8. South side of Creech Hill, Bruton, C. E. Moss (also W.

Watson).

9. Near Cheddar, J. W. White, sp. (not restricted to one spot). An excellent description and figure (reproduced in Fl. Bristol) will be found in Journ. Bot., 1906, pp. 365-7; the first record as a British species. It is now known for four or five other counties. Mrs. Gregory has found with the type a small patch of plants, bearing bluish-purple flowers, which do not show the least difference in structural characters. "The flowering of this species is practically over by the end of July; but secondary shoots develop later from axils of leaves towards the base of the withered stems, and these bear flowers as late as the beginning of November in a mild autumn." Fl. Bristol.

P. LACINIATA X VULGARIS.

9. Dr. C. E. Moss wrote to me (August, 1913) that he considered a blue-flowered 'laciniata' found at Cheddar by Mr. C. E. Salmon to be this hybrid.

# MARRUBIUM, L.

M. VULGARE, L.

2. Minehead Warren!, looking native, C. E. Salmon. Beach

between Stolford and Steart.

9. Portishead; Weston-in-Gordano; above Loxton and Compton Bishop! (H. S. Thompson); Wavering Down and Crook's Peak; Sand Point and Farm; Berrow, Fl. Bristol.

10. Easton-in-Gordano, Fl. Bristol.

"On practically all the Mountain Limestone 'downs' on the Mendips; also on the dunes—more like a casual, here," C. E. Moss in litt. I consider it native on some parts of the coast.

### STACHYS, L.

S. OFFICINALIS, Trevisan (Betonica officinalis, L.).

 Abundant in the Haddeo Valley. Between East Anstey and Brushford.

6. Near Buckland St. Mary. Milton Clevedon.

 Portishead Downs; Tickenham Hill; Cadbury Camp; Clevedon; Cleve; between Churchill and Honey Hall, etc., Fl. Bristol.

10. Failand Hill; Ursleigh Hill and Queen Charlton, Fl.

Bristol.

S. PALUSTRIS X SYLVATICA (S. ambigua, Sm.).

1. By the Haddeo at Hartford.

Durleigh, in two stations, Herb. Clark, 1821 (H. S. Thompson).

8. Cole, W. Watson.

9. Clapton-in-Gordano; Cheddar (C. E. Moss), Fl. Bristol.

10. Near Whatley (Rev. S. Laing), Fl. Bristol.

Much more frequent in Scotland than in southern England. Crossing back with the parents may account for its variability.

S. ARVENSIS, L.

2. Between Watchet and Blue Anchor, C. E. Salmon.

3. West Monkton. North Newton.

9, 10. Common, Fl. Bristol.

[S. ANNUA, L. Casual.

9. Portishead Station-yard, 1904-8, Fl. Bristol.

10. Fallow field between Twerton and Englishcombe (D-Fry, 1886), Fl. Bristol.]

# GALEOPSIS, L.

G. ANGUSTIFOLIA, Ehrh.

8. Bruton, W. Watson. 9. Ebbor, Fl. Bristol.

 Between Stockwood and Keynsham (D. Fry); Chewton Keynsham; Whitchurch and Clutton; Lansdown (D. Fry), Fl. Bristol.

# G. TETRAHIT, L.

Var. bifida (Boenn.).

2. Bossington.

Var. nigrescens. Brébisson.

9. Near the Sanatorium on Mendip (C. E. Salmon), Fl. Bristol.

### LEONURUS, L.

[L. CARDIACA, L.

9. Portishead (Miss Martin); roadside, Winscombe (H. S. Thompson), Fl. Bristol.

10. Near Ham Green (Mrs. Sandwith), Fl. Bristol.

# LAMIUM, L.

L. AMPLEXICAULE, L.

3. Staplegrove, W. Watson. Near Bridgwater, H. S. Thompson. Fields between Adsborough and North Newton. West Monkton. 8. Bruton, W. Watson.

- 9. Near Cadbury Camp; waste ground near Portishead Station; Bleadon and Uphill, Fl. Bristol.
- Corston and Saltford (D. Fry); Charlton Woods, Portbury; Farmborough; Marksbury; Fortnight Farm: Odd Down, near Bath, Fl. Bristol.

L. HYBRIDUM, Vill.

9. Clapton (Miss Roper); Walton-by-Clevedon and Hangstone Hill (Miss Livett); Uphill and Hutton (Mrs. Gregory), Fl. Bristol.

Not yet observed in the south-west.

L. PURPUREUM, L., flore albo.

S. Bruton, W. Watson.

9. Between Clevedon and Tickenham; Cheddar (Miss Livett), Fl. Bristol.

10. Near Combe Dingle (Misses Cundall), Fl. Bristol.

Var. decipiens, Sonder.

9. Roadside, Tickenham; lane at Hutton (Mrs. Gregory), Fl. Bristol.

L. MACULATUM, L.

This is called 'a frequent escape' in Fl. Som., and may be so in some parts of the county; but I have never met with it in the south, so that records of its occurrence seem to be desirable.

8. Bruton, W. Watson.

9. Tickenham Hill (Miss Roper); abundant at Chelvey (Miss Winter and W. E. Green); near Cleeve; Churchill (H. S. Thompson); Max Mill, Winscombe (Mrs. Gregory), Fl. Bristol.

10, Leigh Woods; Abbotsleigh; Failand; Brislington; between South Stoke and Combe Hay (Herb. Jenyns, 1855); edge of Hampton Down (A. E. Burr), Fl. Bristol.

Var. lucrigatum ('L.,' Sm.) Leaves unblotched.
10, Leigh Woods, Fl. Bristol.

L. GALEOBDOLON, Crantz (Galeobdolon luteum, Huds.).

1. Brushford. Winsford. 2. Bossington. Culbone.

3. Frequent near Taunton!, W. Watson. Wiveliscombe. Pitminster. Corfe. Stoke St. Mary. West Monkton. Kingston.

5. Aller. Pitney.

S. Masbury, W. Watson.

9, 10. Rather common throughout our area, Fl. Bristol. Too generally distributed to really need special records.

### TEUCRIUM, L.

T. SCORODONIA, L.

1. Certainly common in the district, W. Watson.

2. Porlock Weir. Bossington. St. Audries.

8. "Is not found on the Oolite near Bruton," W. Watson. 9, 10. Common and generally distributed, Fl. Bristol.

Berrow sandhills may be mentioned as an unusual habitat.

(Mr. White gives several stations for the white-flowered form of  $Ajuga\ reptans,\ L.$ )

### PLANTAGINACEAE.

# PLANTAGO, L.

P. MEDIA, L., var. lanceolatiformis, Druce.

- 9. Clevedon, 1885, G. C. Druce in Botanical Exchange Club Report for 1912, p. 173:—"so intermediate between media and lanceolata as to suggest that the plant is a hybrid of these species; but since the inflorescence appears quite that of normal media, it seems wiser, with our present knowledge, to keep it as a variety of that species."
- P. MARITIMA, L.

2. Bossington.

3, 5. Banks of the tidal Parret!, H. S. Thompson.

8. Highbridge.

9. Blean, etc. Steep Holm, G. C. Druce.

P. Coronopus, L.

- 2. Bossington. Minehead. Blue Anchor. Williton. Steart.
- West Monkton; scarce. Banks of the Parret!, H. S. Thompson.

5. Banks of the Parret!, H. S. Thompson.

8. Highbridge.

9. Bleadon. Rather local, Fl. Bristol.

Var. sabrina, Baker fil. & Cardew.

Steep Holm, about 1845, Rev. T. Butler in Herb. Brit.
 Mus. A remarkable plant, described by Mr. F. N.
 Williams in his Prodromus Florae Britannicae, p. 364
 (1910), and there named P. serraria, L.; but Mr. Baker
 and Miss Cardew reject this identification, placing it
 as a new variety of P. Coronopus. I have specimens
 collected recently by Mr. Druce.

# LITTORELLA, Bergius.

L. LACUSTRIS, L. (L. juncea, Bergius).

2. Dry pools, Danesborough, H. Corder.

4. Chard Reservoir, in plenty.

 Burnham flats (Miss Coote, 1895, in Herb. Dunn), Fl. Bristol.

9. Blackdown (Miss Mules; also C. E. Salmon), Fl. Bristol.

### ILLECEBRACEAE.

### SCLERANTHUS, L.

S. Annuus, L.

 Permanent as a weed in one field at Failand (D. Williams), Fl. Bristol.

Var. hibernus, Reichb. (S. biennis, Reuter)?

Mr. Arthur Bennett suggests that the Warleigh Common plant mentioned in *Fl. Som.* was more likely this than *S. perennis*. It seems to be the original form of the species, which becomes modified in broken ground.

# CHENOPODIACEAE.

### CHENOPODIUM, L.

( POLYSPERMUM, L.

2. Between Withycombe and Old Cleeve, H. Slater, sp.

 Bridgwater, Herb. Clark (H. S. Thompson). Orchard Portman. West Monkton. Cheddon Fitzpaine. Roadside near Hestercombe.

5. Ride in Great Breach Wood, near Compton Dundon.

Bruton, C. E. Moss. Roadside on Aller Moor near Mudgley; Wells (Miss Livett), Fl. Bristol. Near Ashcott Station, in peat-pits.

9. Congresbury; Worle (St. Brody and T. B. Flower), Fl.

Bristol.

10. Garden at Whatley Rectory (Rev. S. Laing), Fl. Bristol.

Var. cymosum, Moq.

3. Farmyard between Combwich and Cannington. Roadside near Hestercombe.

4. Chard Reservoir; plentiful at the north end.

Edington Burtle, Herb. Clark, 1836 (H. S. Thompson).
 In peat-pits near Ashcott Station.

C. VULVARIA, L.

2. Minehead Warren, 1910, H. W. Pugsley.

8. Shapwick, W. Watson.

- Portishead Station-yard, 1906 to 1910, Fl. Bristol.
   Casual near Twerton (S. T. Dunn, 1897), Fl. Bristol.
- C. Albun, L., var. viride, Moq. Apparently frequent in some districts; noted as follows:—

2. Minehead.

3. Staplegrove, W. Watson. West Monkton.

5. Weston Zoyland.

8. Bruton, W. Watson.

 Brean. Uphill. Mr. White thinks it the least common form in the north.

Var. glomerulosum (Reichb.).

9. Weston-super-Mare (Miss Peck, 1905), Fl. Bristol.

10. Abundantly on waste heaps at Twerton, 1906, Fl. Bristol.

[C. OPULIFOLIUM, Schrader.

9. Waste ground by Portishead Station, 1900-6, Fl. Bristol.

 On a heap of house-refuse barged from Bath, by the river at Newton St. Loe (D. Fry, 1893); abundant on dustheaps near the Gas Works below Bath, 1895-7; Midford, 1909, Fl. Bristol. C. FICIFOLIUM, Sm.

5. Farmyard, Compton Dundon, in quantity, 1907.

8. Edington Burtle (Herb. Clark, 1836); peat moor, Shapwick, 1902, Fl. Bristol. Plentiful in fields near Ashcott Station, 1913.

9. Waste ground by Portishead Pill, 1900-7; garden weed at Clevedon (D. Fry); Weston-super-Mare (Miss Peck); by a cowshed on the coast at Brean (C. E. Salmon, 1907). Fl. Bristol.

10. Waste ground near Twerton-on-Avon, 1902; refuse heap

by the Avon below Bath, 1896, Fl. Bristol.

"I am unconvinced of the identity of C, serotinum, L., and C. ficifolium, Sm. Neither the description nor specimen of L. is the plant of Smith. C. serotinum, L. (excluding Ray's synonyms) seems to be a doubtful plant; but whatever it is, it is not C. ficifolium." C. E. Moss in litt.

C. MURALE, L.

2. Minehead Warren!, and near Dunster Station!, H. W. Pugsley.

8. Edington Burtle (Herb. Clark, 1836), Fl. Bristol.

9. Yatton (D. Fry); by the sidings in Portishead Stationyard, yearly since 1900; Uphill, and buildings under Brean Down (Mrs. Gregory, etc., 1888 to 1911); in a pound at Bleadon (Mrs. Gregory, 1886); roadside waste at Berrow, 1900, Fl. Bristol. I saw this on sandy ground near Berrow Church in 1906, and thought it native.

C. HYBRIDUM, L.

10. Garden weed at Corston (D. Fry, 1896), Fl. Bristol.

C. URBICUM, L.

8. Edington Burtle (Herb. Clark, 1836), Fl. Bristol.

10. On house refuse by the Avon at Newton St. Loe (D. Fry, 1892); in neglected garden ground at Bath (A. E. Burr, 1893), Fl. Bristol.

Var. intermedium, Moq.

2. Fairly plentiful in a farmyard at Kilve, 1907.

C. RUBRUM, L.

- 2. Minehead Warren!, H. W. Pugsley. Dunster. Kilve. Steart.
- 3. Pitminster, W. Watson. Cheddon Fitzpaine. Between Combwich and Cannington.

4. Chard Reservoir, in profusion.

5. Chedzov.

8. Bruton, W. Watson. Burnham!, Highbridge and Brent

Knoll, Fl. Bristol. Frequent in peat-pits, etc., near Ashcott Station.

9. Portishead Fill and Lake; Clevedon (W. E. Green);

Brean!, Fl. Bristol. Worle.

 Sheephouse Farm and St. George's Wharf, on muddy margins of the salt-marshes; plentiful on roadsides about Norton Hautville and Chew Magna (D. Fry); Portbury, Fl. Bristol. Nempnett, C. E. Salmon.

Var. pseudo-botryoides, Watson.

- 2. By a small pond near the entrance to Minehead Warren, 1910.
- Locally plentiful on the east side of Chard Reservoir, 1907.
   Mr. White seems to have seen this near Bristol; it is not necessarily "dependent on insufficient nutriment."

Var. blitoides, Wallr. (acuminatum, Koch).

A tall, coarse plant; leaves large, often very broad at the base, deeply and sharply toothed or lobed, with a long point. Much like C. urbicum, var. intermedium in general appearance; but the small seeds distinguish it. Dr. Moss so named plants from the following stations:—

2. Farmyard, Kilve.

Farmyard between Combwich and Cannington (immature).

8. Rubbish-heap, West Pennard, R. P. Murray, sp.

C. GLAUCUM, L.

Native or colonist; extremely rare. August to October.

- 9. "Brean Down Farm, by the gate that leads from the farmhouse to the ferry; and on the shingle by the beach—considered to be probably glaucum by C. Crossland, F.L.S., of Halifax," C. E. Moss in litt. Discovered in 1904, and again observed there in 1906. Mr. White and I failed to detect it, two or three years ago, nor could I see any in 1913; but annuals are very uncertain in their occurrence, and the species is so different from our others that a mistake is unlikely. I may add that C. murale was not to be found, on my last two visits; both will probably recur.
- C. Bonus-Henricus, L.

Bossington.

 Hill Farm, West Monkton. Foot of Cothelstone Beacon, at 1,080 feet.

5. Weston Zoyland.

8. Near Wanstrow, W. Walson.

 Roadside, Weston-in-Gordano, Miss Livett. Croft on Bourton Farm, between Cross and Compton Bishop; roadside between Churchill and Rowberrow; grassy waysides, Priddy; Kewstoke (Mrs. Gregory), Fl. Bristol.

10. Murdercombe, near Mells; frequent about farms near

Bath (Miss Martin), Fl. Bristol.

### BETA, L.

B. MARITIMA, L.

2. Porlock Weir. Bossington. Blue Anchor. Coast below Williton.

3, 5. Banks of the tidal Parret.

 One plant by the Avon at Saltford (D. Fry, 1900), Fl. Bristol.

### ATRIPLEX, L.

A. LITTORALIS, L.

A very rare native, formerly; perhaps extinct. July to October.

 Two specimens at the mouth of the Brue below Burnham (H. S. Thompson, 1889); not seen in 1906, Fl. Bristol. May reappear.

9. Weston-super-Mare (St. Brody in Robbins' Guide), Fl.

Bristol.

A. DELTOIDEA, Bab.

2. Minehead. Blue Anchor.

8. Burnham!; potato-ground, etc., on the peat moors, Fl. Bristol.

Cultivated and waste ground by Portishead Pill; Clevedon, apparently constant; Brean; Knowle Bridge near Wookey (Miss Livett), Fl. Bristol.

Sometimes abundant as a garden weed at Brislington;
 Keynsham; between Pensford and Whitley Batch

(D. Fry), Fl. Bristol.

Var. prostrata, Bab. (salina, Bab.).

 Clevedon, Kewstoke Bay, and Brean, Fl. Bristol—" a well-marked variety, frequent and characteristic on sea-sand and shingle."

A. BABINGTONII, Woods.

2. St. Audries to Kilve. Abundant on the beach from Stolford to Steart Point.

 Side of a pit by old brick works near Nailsea Station (Miss Livett, 1905); Portishead; Kewstoke Bay; the Bleadon Level; Uphill marshes, Fl. Bristol.

10. Wick St. Lawrence, Fl. Bristol.

A. LAPISIATA, L. (arenaria, Woods).

Native on coast sands; very rare. July to October.

2. Locally abundant at Steart Point, 1907.

8. Very sparingly at Burnham, 1906.

These rediscoveries (which by no means stand alone) tend to prove that Collins and St. Brody were more trustworthy observers than Mr. Murray supposed.

A. PORTULACOIDES, L.

8. Near the mouth of the Brue, south of Burnham, 1906; confirming old records by Collins and Flower.

9. (levedon, 1894 (S. T. Dunn); still there: in two stations

(Mrs. Foord-Kelcey, 1905), Fl. Bristol.

# SALICORNIA, L.

S. HERBACEA, L., aggregate.

 Porlock Weir!, C. E. Salmon; not seen late enough in the year for accurate determination, but perhaps S. Smithiung.

The following segregates have been found; but much more work is needed, especially in the salt-marshes on the south side of Bridgwater Bay. Dr. Moss has determined several of my gatherings.

S. EUROPAEA, L. (S. annua, Sm.)

Forma stricta, Moss (S. stricta, Dumort.); i.e. the type.

3. Marsh at the mouth of the Parret, near Steart.

8. Locally plentiful, south of Burnham.

 In profusion on both sides of the Axe estuary, near Uphill and Brean, especially the latter. Clevedon, Fl. Bristol.

 Extremely plentiful on Portbury Wharf—the mudflats of King's Road (Dr. C. E. Moss), Fl. Bristol.

Forma patula, Moss (S. patula, Duval-Jouve).

Minehead. Blue Anchor—destroyed by a violent storm in the winter of 1910, but likely to reappear.

This is the S. procumbens, Sm., figured in English Botany; it should be found elsewhere on our coasts.

S. RAMOSISSIMA, Woods.

2. Between Stolford and Steart Point.

3. Abundant near Steart, at the mouth of the Parret.

8. Near the mouth of the Brue, south of Burnham.

9. On both the Brean and Uphill sides of the Axe estuary.

S. SMITHIANA, Moss. (procumbens, auct. angl. recent.)

2. Minehead.

8. Muddy ground on both sides of the tidal Brue near Burn-

ham, Highbridge, and Huntspill.

9. On a drying-up bit of salt-marsh west of Pill (Dr. C. E. Moss), Fl. Bristol. Sparingly on the Brean side of the Axe; also, I think, in a small salt-marsh below Uphill, though Mr. White assigns this station—on my authority—to S. appressa, Dumort. Unfortunately I have kept no specimen, so cannot be certain; but it stands in my notes as 'procumbens,' and was so recorded in Journ. Bot., 1908, p. 260. This is a very characteristic species, usually found in places only reached by spring tides; remarkable for its brownish red or pinkish colour, and prostrate or somewhat ascending branches. As a rule it is small; but a peculiar form occurs in the drier parts of a salt-marsh at Minehead which is much more luxuriant, very stiff and dense in habit, and quite flat.

S. PROSTRATA, Pallas?

2. Minehead; first observed in 1910.

I reported this as a form of S. appressa; but the spikes are much stouter and simpler, as well as longer. The following season Dr. Moss accompanied me to the station, where it was in good quantity over a very limited space, and confined to the wettest places. He afterwards wrote :- "I think we must put the Minehead plant to S. prostrata, Pall., although it is more robust than any form of it which I have seen." In September, 1913, however, I understood from him that he proposed to combine it with his S. Smithiana; a course which does not at all commend itself to me. In this locality there are three primary forms: S. europaea, f. patula, S. Smithiana, and the present plant: together with many intermediates which I have no doubt are hybrids between them. This prostrata differs from Smithiana (also from appressa) in its colour, which is a dull grevish green, not or but slightly tinged with red even late in the season; it is usually much larger and stronger, with far longer spikes, the lateral ones averaging three-quarters of an inch, and the terminal varying from that to an inch and a half. If not the true species of Pallas, it deserves a special name; but a weaker form (queried in 1909 by Dr. Moss as that), from Poole Harbour near Hamworthy, Dorset (1891), which cannot be separated from the Minehead plant by any apparent difference except smaller size and shorter spikes, probably connects it with the Continental type.

S. APPRESSA, Dumort.

On August 22nd, 1907, Mr. C. E. Salmon and I found specimens which I believe to be this in two places between Stolford and Steart, on saline mud; they are just like early states which I have observed in W. Sussex, but I have had no opportunity since then of revisiting the station in autumn.

Sole's alleged S. radicans at Highbridge was, I suspect, S.

Smithiana.

# SUAEDA, Forskal.

S. MARITIMA, Dumort.

2. Porlock Weir!, C. E. Salmon. Bossington.

 Bank of the Parret, by the Turnpike, Herb. Clark, 1823 (H. S. Thompson).

S. Highbridge.

9, 10. About all the muddy estuaries and salt-marshes of the district, Fl. Bristol. Abundant at Uphill!

### SALSOLA, L.

S. KALL L.

2. Steart Island, 1817, Herb. Clark (H. S. Thompson).

 Portishead, one plant, 1906; Berrow!, Fl. Bristol. Uphill.

I have noticed that it varies much in quantity from year to year.

# POLYGONACEAE.

# POLYGONUM, L.

P. AVICULARE, L., var. arenastrum, Syme. 2. Minehead. Coast near Dunster. This comes under P. aequale, Lindman.

P. Raii, Bab. (P. Roberti, auct., non Loisel.).

2. Coast near Dunster!, C. E. Salmon. Abundant in sand

at Steart Point, 1907.

 Near the little lighthouse, Burnham (Dr. C. E. Moss), Fl. Bristol. Sparingly in hollows of the sandhills, a little south of the town, 1906-7.

 Between Berrow Church and Burnham Church; rare, but very fine (Dr. C. E. Moss), Fl. Bristol. Probably this was St. Brody's Weston-super-Mare 'P. mari-

timum.

P. MINUS, Huds.

8. Burtle Moor-Sole's station-Herb. Clark, 1859 (H. S. Thompson). On the peat between Catcott and Shapwick Droves, 1895, Fl. Bristol.

P. MITE, Schrank.

- 5. In 1907 Mr. Salmon pointed out to me a single plant on a drove near Weston Zoyland; probably more could have been found.
- 10. Bank of the Chew at Compton Dando, Fl. Bristol.

### P. LAPATHIFOLIUM, L.

2. Bossington.

3. Between Maunsel and Athelney.

4. Chard Reservoir.

8. Bruton; infrequent, W. Watson. About Shapwick and Ashcott Stations.

P. MACULATUM, Trimen & Dyer.

- 4. In profusion at the south-western end of Chard Reservoir, 1907.
- 8. Bruton; rare, W. Watson. Wells (Miss Livett); frequent on the peat moors, Fl. Bristol.
- 9. Pool among the sandhills near Burnham, Fl. Bristol.

#### P. AMPHIBIUM, L.

2. Williton. Stolford.

3. Maunsel.

5. Langport to Middlezoy, W. Watson. Chedzoy. Weston Zovland.

8. Burnham; peat moors, Fl. Bristol. Highbridge. Huntspill. Abundant near Ashcott Station.

9. Throughout the lowlands from Tickenham, etc., to Clevedon, Puxton, etc.; similarly in the Cheddar Valley. and from Brent Knoll to Berrow, Fl. Bristol.

The var. terrestre, Koch is merely a land-form, and unstable.

P BISTORTA, L.

1. Meadows in the Haddeo Valley about Hartford. Below Bridgetown, Exton.

2. Oare, H. S. Burnell-Jones, sp.

- 3. Meadow between Bishop's Lydeard and Crowcombe, near Combe Florey.
- 4. Castle Neroche, W. B. Butler. Between Chard and Ilminster.
- 8. Evercreech, W. Watson. Destroyed by quarrying at Croscombe, Fl. Bristol.
- 9. Butcombe end of the Yeo Reservoir (D. Carr); Compton Martin Wood (Miss Roper), Fl. Bristol.

 Leigh's Wood, Failand (D. Williams); Barrow Gurney; Norton Hautville (F. Samson); Chew Magna (Miss Roper) Publow; Lord's Wood, Houndstreet; abundant between Clutton and Hallatrow (C. Bucknall and L. W. Rogers); Doulting Bottom (W. Barnes), Fl. Bristol.

Certainly native.

# RUMEX, L.

R. CONGLOMERATUS X CRISPUS.

 Mr. C. E. Salmon and I found several specimens of this with the parents in a pasture at Chedzoy, August, 1907; just intermediate.

R. SANGUINEUS, L.

Bruton; rare, W. Watson. The Easton station (Fl. Som.) is in dis. 9.

10. Villa Fields, Bath (S. T. Dunn, 1894), Fl. Bristol.

Rightly classed by Mr. White as a denizen. Mr. Davey considers it native in Cornwall, which appears to be its English head-quarters; but Dr. Moss tells me that he doubts its being truly wild in Europe.

R. MARITIMUS, L.

3. By the towing-path of the canal below Maunsel, 1908.

5. Langport, W. Watson.

8. Salt-marshes near Highbridge (Sole, MS.), Fl. Bristol (the Wedmore locality is probably in this division).

R. LIMOSUS, Thuill. (palustris, Sm.).

3. North Moor, 1857, Herb. Clark (H. S. Thompson).

4. Plentiful at the south end of Chard Reservoir.

5. Weston Zoyland.

 In profusion near Ashcott Station, 1913, especially in peat-pits; I saw no R. maritimus, though on the watch for it. Aller Moor, near Mudgley, Fl. Bristol.

9. Tickenham Moor (C. Bucknall), Fl. Bristol. Roadside green near Berrow, up to four feet high, 1906.

Some Continental authorities make this a hybrid between R. conglomeratus and R. maritimus—erroneously, if our plant is really intended; for it is fully fertile, and occurs in quantity away from both these species.

R. PULCHER, L.

2. Dunster. Steart.

5. Plentiful at Chedzoy. Weston Zoyland.

 Portishead; Walton-in-Gordano; Axbridge; Worle Hill, Fl. Bristol. Abbotsleigh; Providence Place; Keynsham, Saltford, and between Lansdown and Langridge (D. Fry), Fl. Bristol (with regard to the entry in Fl. Bathon., 'common on roadsides,' Mr. S. T. Dunn wrote:—"This statement is misleading; it is not true now, even if it ever were").

Native in several districts; it grows on hills and other spots

remote from houses.

R. CRISPUS, L., var. trigranulatus, Syme.

2. Coast east of St. Audries.

- 9. Portishead, on waste ground by the Dock; inner face of the coast sandhills between Brean and Berrow (C. E. Salmon), Fl. Bristol.
- R. CRISPUS × OBTUSIFOLIUS (R. acutus, L.; R. pratensis, Mert. & Koch).
  - 8. Bruton, W. Watson. Droves on the peat moors near Edington and Shapwick, Fl. Bristol.

9. Bleadon.

10. Failand; Brislington; by the Avon opposite Hanham Mills (C. Bucknall), Fl. Bristol.

Probably common, but overlooked.

R. HYDROLAPATHUM, Huds.

Taunton!; Creech St. Michael!, W. Watson. Northmoor. Lyng.

5. Langport, W. Watson. Othery.

8. Wedmore; Brent Knoll!; Burnham!, Fl. Bristol.

9. Nailsea and Tickenham Moors; Yatton, etc., Fl. Bristol.

- Keynsham, Saltford, and Twerton, by the Avon; by the Cam Brook near Dunkerton; canal between Camerton and Radford, Fl. Bristol.
- (R. Acetosella, L. "Very rare in the Bruton Oolite district," W. Watson.)

# THYMELEACEAE.

### DAPHNE, L.

D. MEZEREUM, L.

 "Woods about Exford; Miss Gifford in The Naturalist's Circular, 1868, p. 116." Ar. Bennett in litt. Seems to need verification. 8. Hedgebank near Wells, now destroyed (Miss Livett),

Fl. Bristol.

 Cadbury Camp (Mrs. Gregory, 1900), Fl. Bristol. I fear that it has been eradicated at Churchill, where it has been vainly sought for by Mr. White, Miss Livett, and myself within the last few years.

10. By the Juniper on Bathford Hill (Dr. Harper), Fl. Bristol. (A white-flowered form was recorded from a wood five miles north of Bath by Mr. A. E. Burr in Science Gossip, 1899, p. 159, Ar. Bennett in litt.; but this was almost certainly in E. Gloucestershire.)

The evidence favours its being aboriginal in woods on calcareous

soils, and thence removed into gardens-not vice versa.

D. LAUREOLA, L.

Lane between Crowcombe Heathfield and Stogumber; plentiful on a steep, wooded bank by Stogumber Station.

3. Cothelstone; Trull, W. Watson. West Monkton, one plant. Durston. Hatch Beauchamp.

4. Hatch Beauchamp, towards Beercrocombe. 5. High Ham, W. Watson. Aller. Dunball.

8. Bruton, W. Watson. Puriton.

9. Wraxall; Cleeve Toot; throughout the whole range of woods from Goblin Combe and Cleeve to Rhodyate Hill and Congresbury; near Shipham; Pen Knowle and Wookey (Miss Livett), Fl. Bristol—"unknown on the higher ground of Mendip." Bleadon.

 Upper Failand; Chewton Keynsham; Publow; between Stanton Drew and Stowey, and between the former place and Bishop Sutton; Hinton Blewett and the Harptrees; under Lansdown (D. Fry), Fl. Bristol.

Not restricted to limestone, though preferring it.

D. LAUREOLA X MEZEREUM'?

5. Wood-border between Somerton and Compton Dundon, towards Kingweston, April and August, 1907. Flowers glabrous, whitish green; usually reddish externally, below. Leaves evergreen, but thin and impatient of frost; smaller than in normal Laureola, approaching those of Mezereum in texture and veining, and drying yellow. Wood and bark fairly intermediate.

The cuttings taken from this died; those from a second bush, which I thought a slightly different form nearer Laureola, proved to be only that. D. Mezereum is unknown in the district as a wild plant. If really a hybrid, this is a decidedly per-Laureola form, and very different from my original one (found in 1902 near Slindon, W. Sussex), which had deciduous but shining foliage.

Unknown on the Continent

### LORANTHACEAE.

#### VISCUM, L.

V. ALBUM, L.

3. West Monkton. Creech St. Michael. Stoke St. Mary. West Hatch, etc.

5. Aller. Pitney.

8. Near Evercreech, W. Watson. "Distribution interesting; e.g. absent around Bruton, except on river alluvium from Castle Cary down to the levels," C. E. Moss in litt.

9, 10. Common in N. Somerset orchards, and frequent on a variety of trees, Fl. Bristol. On Pyrus Aria in Bourton Combe, Miss Roper.

#### EUPHORBIACEAE.

# EUPHORBIA, L.

[E. STRICTA, L. Casual near Twerton (Miss Martin, 1902), Fl. Bristol.]

E. HIBERNA, L.

Native; very rare. Bushy places and streamsides. May, June.

2. Plentiful in the Badgworthy Valley, 1898, C. E. Salmon.

E. AMYGDALOIDES, L.

3. Corfe; Pitminster; Stoke St. Mary, etc.

5. Aller.

9, 10. Well distributed, Fl. Bristol.

Apparently scarce in the south-west; really too common elsewhere to need specifying.

E. LATHYRUS, L.

3. A weed at Staplegrove, W. Watson; also at West Monkton and Creech St. Michael.

8 Roadside between Croscombe and Dinder (W. Barnes); railway bank, Wells (Miss Livett), Fl. Bristol. Bruton, as a weed, W. Watson.

10. Weed about a farmstead at Portbury, Fl. Bristol.

### MERCURIALIS, L.

M. ANNUA, L.

 Watchet, W. Watson. Abundant in the garden at Withycombe Rectory, H. Slater. 3. Bridgwater, H. S. Thompson.

S. Near Glastonbury, H. S. Thompson. Highbridge, Fl. Bristol.

 Wraxall; Tickenham; Bleadon!; Banwell; Churchill; Berrow, Fl. Bristol. Axbridge. Between Worle and Kewstoke.

 Brislington; Whitehurch; Chew Magna, Fl. Bristol. Var. ambiqua (Linn. fil.).

2. Minehead; several plants, with the type, 1910-11.

9. Plentiful at Axbridge (W. F. Miller); Weston-super-

Mare (Mrs. Gregory), Fl. Bristol.

10. Ashton Gate; Whitchurch, Brislington, and Saltford (D. Fry); Twerton-on-Avon (Miss Martin); rather common about Bath (A. E. Burr), Fl. Bristol.—"It is the narrow-leaved female plant with male flowers intermixed, i.e., monoicous. The seeds, too, are ovoid rather than globular."

#### URTICACEAE.

### ULMUS, L.

U. GLABRA, Huds. (scabra, Miller; montana, Stokes).

1. Winsford.

2. Bossington. Culbone.

3. Stoke St. Mary. Corfe. Wiveliscombe.

5. Aller Wood.

9. Between Kewstoke and Weston-super-Mare. Noted as locally common in Fl. Bristol.

# HUMULUS, L.

H. LUPULUS, L.

 Bossington. Williton. Kilve. Abundant in hedges everywhere, except on the higher hills, H. Slater.

3. Kingston.

5. Weston Zoyland.

8. Bruton, W. Watson. Wedmore; Blackford, Fl. Bristol

9. Barrow Gurney; Nailsea, Kenn; Yatton; Walton-in-Gordano and by Clevedon: Uphill; Axbridge; Rodney Stoke; Worle; Kewstoke; Wookey (Miss Livett), Fl. Bristol.

Bedminster; Stowey and Stanton Wick (D. Fry);
 Chewton Keynsham; Stanton Drew; Pensford; Port-

bury, Fl. Bristol.

# URTICA, L.

U. DIOICA, L.

9. "Miss Livett has at Clevedon a plant approaching var. angustifolia, with long, narrow leaves scarcely cordate at the base," Fl. Bristol. This may be the same as a 'var. longifolia' found near Bath in 1841 by Babington, and mentioned in his Journal of Life, p. 100 (Ar. Bennett).

U. URENS, L.

2. Williton.

3. Boroughbridge; common, W. Watson. West Monkton. Foot of Cothelstone Beacon, at 1,080 feet.

9. Wrington; between Walton- and Weston-in-Gordano; Kewstoke (Miss Roper); Brean!, Fl. Bristol.

Native on the coast.

# PARIETARIA, L.

P. RAMIFLORA, Moench (diffusa, Koch).

1. Skilgate.

- 2. Selworthy, C. E. Salmon. Bossington. Minehead. Dunster. Williton.
- 3. Taunton, W. Watson. North Curry. West Monkton. Cheddon Fitzpaine. Cothelstone.

4. Montacute, H. S. Thompson.

8. Bruton !, W. Watson.

9. Steep Holm, G. C. Druce. Brean Down. Berrow.

Abbotsleigh; Failand; Brislington; Keynsham; Pensford; Chew Magna, Fl. Bristol.

### MYRICACEAE.

# MYRICA, L.

M. GALE, L.

 A few bushes, descending from Beer Moors near East Anstey to the Brockey River, 1907; new for the southwest.

 "Nearly, if not quite, seven feet high in places on Shapwick Moor—a height I have never before seen approached," H. Slater. 166

#### CUPULIFERAE.

### BETULA, L.

B. Alba, L. (verrucosa, Ehrh.).

9, 10. Rather common, Fl. Bristol. This may apply to other parts; but I have made no special notes.

B. PUBESCENS, Ehrh. (tomentosa, Reitter & Abel).

2. Plentiful and native on the hills near Dunster.

3. Outskirts of Buncombe Wood, Kingston.

8. Abundant in wooded portions of Shapwick and Ashcott peat moors !, Fl. Bristol.

9, 10. Local, Fl. Bristol.

# CARPINUS, L.

C. Betulus, L.

 Near Bridgwater, rarely, H. S. Thompson. Hedge below Burlinch, on the northern edge of West Monkton parish.

5. Wood between Somerton and Kingweston, probably planted. Several on the Poldens at Ford, Stawell; one at Sutton Mallet; and two or three in the wood edge, Poldens, by the main road opposite the turn to Shapwick, H. Slater.

8. Old double hedge near Bruton, C. E. Moss.

 Brockley Combe (H. S. Thompson); plentiful and apparently indigenous on Backwell Hill, Chelvey Batch, Hill Scar, etc.; hedges about Sidcot, Fl. Bristol.

10. Certainly native but not frequent in Leigh Woods; coppice opposite the Failand Inn; a good many full-sized trees on the wooded slope which extends from Pensford towards the Chew Magna road, looking quite like a native; probably planted at Stanton Drew (D. Fry), Fl. Bristol. Near Witham Friary; local, C. E. Moss.

# QUERCUS, L.

"All the Oaks of the Somerset woods on deep marls and clays, and on the Carboniferous Limestone, are, so far as I have observed (and I have looked critically at thousands of trees), Q. Robur=Q. pedunculata" (Dr. C. E. Moss), Fl. Bristol.

Q. ROBUR × SESSILIFLORA (Q. intermedia, Boenn.).

 Wood, Holford Combe, 1850, Herb. Clark (H. S. Thompson).

 Several trees in Leigh Woods, by the Roman Encampment and on Lily Point; well marked, 1910, Fl. Bristol. Q. SESSILIFLORA. Salisb.

2. Longcombe (above Withycombe and Dunster), H. Slater. Woods on Grabbist Hill, near Minehead, H. W. Pugsley.

3. Hedgerow, Monkton Heathfield. 9. Portishead Woods, Fl. Bristol.

10. Leigh Woods; St. Anne's Wood and Fox's Wood, Brislington; a very fine specimen at Compton Dando (D. Fry); Portbury (Misses Hill and Peacock), Fl. Bristol.

#### SALICACEAE.

### SALIX, L.

S. TRIANDRA, L.

4. South end of Chard Reservoir.

9. Clevedon Moor (D. Fry), Fl. Bristol.

10. Bushy swamp by the railway between Keynsham and Brislington; Saltford withy-bed (D. Fry), Fl. Bristol.

Var. Hoffmaniana (Sm.).

- 10. Ashton Park withy-bed; on the Chew between Chewton Keynsham and Compton Dando (D. Fry); roadside near Burnet: in hedges near Clutton, Fl. Bristol.
- S. DECIPIENS, Hoffm. (S. fragilis, var. decipiens, Syme). 9. Kenn Moor, Fl. Bristol.

10. Lock's Mills, Bedminster (Rev. W. H. Painter), Fl. Bristol. Rev. E. F. Linton now reckons this as a species, not a hybrid (S. fragilis × triandra), as Dr. Buchanan White thought. Scarce and doubtfully native in Britain.

S. ALBA, L.

9, 10. Common, but always planted, Fl. Bristol; this applies to the county as a whole, I believe.

S. PURPUREA, L.

- 2. A large thicket near the coast between Minehead and Dunster.
- 9. Nailsea Moor (D. Fry; not S. rubra, as supposed in Fl. Som.), Fl. Bristol.

S. PURPUREA X VIMINALIS (S. rubra, Sm.).

2. Near Minehead, 1906, A. Ley, sp.

The Brent Knoll and Berrow plants are the broad-leaved form S. Forbyana (Sm.), Fl. Bristol.

S. RUGOSA, Leefe is given by Mr. White for a good many stations in his area; but I understand from Rev. E. F. Linton that it included two hybrids (aurita × viminalis and cinerea × viminalis), and there is no means of disentangling them.

S. AURITA, L.

I. Moors between East Anstey and Brushford.

4. Staple Common.

6. Near Chard.

9. Bogs near the Mineries on Mendip, Fl. Bristol.

10. Lane on the Pensford side of Lord's Wood, Houndstreet (D. Fry), Fl. Bristol. Can this usually calcifuge species be really frequent about Bath?

S. REPENS, L.

1. Between East Anstey and Brushford.

4. Staple Common.

8. Burnham.

Messrs. Fry and White concluded that the commonest form was S. fusca, Sm., and that specimens from Berrow sands were referable to S. argentea, Sm.

### POPULUS, L.

[P. ALBA, L. "Very generally planted," Fl. Bristol. I believe that to be always the case in this country].

P. CANESCENS, Sm.

Denizen or alien (often evidently planted); rather frequent in the north, but not yet reported elsewhere. Woods, hedgerows, etc. February to April. Only one female plant has been observed.

8. Plentiful on roadsides, etc., about Burnham, Fl. Bristol. 9. Near Barrow Gurney; Kewstoke Bay, Fl. Bristol. One

tree by the road from Bleadon to Loxton.

10. Between Stanton Drew and Stanton Wick, in the Park at Newton St. Loe, and on the Manor Farm, Corston (D. Fry); Hallatrow; Downside Common, Edford; Radford; Combe Hay; Midford; between Lansdown and Weston; Oakford Valley, St. Catherine's; Englishcombe; Lyncombe, Bath, female (D. Fry), Fl. Bristol

Leigh Woods and Englishcombe appear to be the most satisfactory stations.

P. TREMULA, L.

 Hedge in a lane near Croford Bridge, between Milverton and Wiveliscombe. 5. Woods near Somerton and Compton Dundon.

8. On the peat moor near Ashcott Station.

9. Many trees in a field hedge under Sandford Hill (D. Fry). Fl. Bristol

10. Many small trees on the rocky river-bank, nearly opposite Sea Mills, not planted; Keynsham; hedge between Woollard and Houndstreet; roadsides at Stanton Drew. and between Chew Magna and Compton Martin (D. Fry). Fl. Bristol.

Var. villosa (Lang).

10. Plentiful, as coppice bushes, in Leigh Woods; wood near Stowey (D. Fry), Fl. Bristol.

P. NIGRA, L.

Denizen or alien; rare. Woods and hedges. March.

9. A number of small trees in the marshland between Brent Knoll and Berrow, and a few stunted ones by the golf links near Berrow Church, Fl. Bristol.

10. A large tree at Corston (D. Fry); banks of the Chew be-

tween Coley and South Widcombe, Fl. Bristol.

Truly wild in E. Anglia, and perhaps elsewhere; but very doubtfully so in the West.

[P. SEROTINA, Hartig (monilifera, Aiton).

A planted alien in most parts of the county; till recently confused with the true P. nigra. Woods, etc. March].

### EMPETRACEAE.

### EMPETRUM, L.

E. NIGRUM, L.

2 or 3. "Given me by Miss Rosekelly, 8. 19. 1852, who received it a day or two since from the Quantocks, near Crowcombe," Herb. Clark (H. S. Thompson in Journ. Bot., 1905, pp. 237-8).

### CERATOPHYLLACEAE.

# CERATOPHYLLUM, L.

C. DEMERSUM, L.

5. Langport, W. Watson.

8. The peat moors, Fl. Bristol. Ditch between Ashcott Station and Meare village.

9. Near Portbury and Nailsea, Fl. Bristol.

10. In the Avon near Saltford, Fl. Bristol.

C. SUBMERSUM, L.

8. ()n the moor near Glastonbury, 1726, Dillenius (G. C.

Druce).

 Abundant and fruiting freely in a ditch near Worle Station, 1907! It had been found there and at Congresbury by Dillenius, 1726.

A good species; easily distinguishable from C. demersum, even without fruit, by its denser, more flaceid growth, paler colour,

and leaf-structure.

### CONIFERAE.

# TAXUS, L.

T. BACCATA, L.

 "Several indigenous Yews of immense age exist in the limestone woodland of Chelvey Batch and Bourton Combe." Fl. Bristol.

# PINUS, L.

P. SYLVESTRIS, L.

9. Mr. White gives good grounds for believing this to be aboriginal on the peat of Walton Moor, near Clevedon. I am very sceptical about its being so on the hills of the Bath Oolite; in the Scottish Highlands it avoids limestone, and the clumps which crown many of the high chalk-downs in Wilts, Berks and Dorset appear to have been always planted.

### HYDROCHARIDACEAE.

# ELODEA, Michaux.

E. CANADENSIS, Michaux (Anacharis Alsinastrum, Bab.).

 Common about Winsford, in the Haddeo Valley, etc.
 About North Newton! and Creech St. Michael!, W Watson. West Monkton. Frequent near Taunton.

9. Yatton!, W. Watson. Common, Fl. Bristol.

# HYDROCHARIS, L.

H. Morsus-Ranae, L.

3. Plentiful on Northmoor, between Maunsel and Athelney, and thence to Langport.

8. Common about Shapwick and Meare. The South Marsh

generally, Fl. Bristol.

9. Walton and Clapton Valley, and in the marsh-lands near Nailsea, Tickenham, Yatton!, etc.; throughout the Cheddar Valley, Fl. Bristol. Congresbury, C. E. Salmon. Puxton.

#### ORCHIDACEAE.

### NEOTTIA, Adans.

N. NIDUS-AVIS, Rich.

2. Blue Anchor, W. B. Butler.

3. Orchard Woods, W. B. Butler. Enmore Wood, 1821, Herb. Clark (H. S. Thompson). Stoke St. Mary.

8. Abundant under old beeches near Alfred's Tower, C. E. Moss. Shepton Montague, W. Watson. Pilton Wood (Miss E. D. Clark), Fl. Bristol.

9. Clevedon (Rev. G. W. Braikenridge); Queen Wood, Axbridge (H. S. Thompson), Fl. Bristol.

10. Sandy Lane, between Abbotsleigh and the Tanpits, and in the adjoining wood; Portbury Woods (Misses Hill and Peacock); Brass Knocker Wood (D. Fry), Fl. Bristol.

### SPIRANTHES, Rich.

S. SPIRALIS, Koch (autumnalis, Rich.).

3. Toulton, near Cothelstone, W. B. Butler. Clavelshay, near North Petherton; Kingston, W. D. Miller. Coombe and Gotton Down, West Monkton. Between Bathealton and Wiveliscombe.

8. In quantity on several hills near Wells, in some seasons

(Miss Livett), Fl. Bristol.

9. Wraxall Hill; Walton-in-Gordano, and along the limestone ridge towards Portishead; one plant in the peat of Walton Moor, 1904; near Yatton; Worle Hill; lawns at Ellenborough Park, Weston-super-Mare, 1882; Callow Hill near Sidcot, and hill pastures on Mendip in many other places, Fl. Bristol. On limestone below the old Church, Uphill.

Rocky hillsides by Providence Place and Ashton Tump;
 Ashton Park; Upper Failand, plentiful, Fl. Bristol.

# CEPHALANTHERA, Rich.

(\* RUBBA, Rich. Probably Collins's old record was right; limestone occurs near Merridge, and confusion with any other Orchid is unlikely.

C. GRANDIFLORA, Gray (pallens, Rich.).

S. Wood at Pylle (Mrs. Barnes), Fl. Bristol.

- 9. Portishead Wood (H. E. Matthews); Limeridge Wood, Tickenham; foot of Sandford Hill (F. A. Knight); top of the wood in Cheddar Gorge (R. V. Sherring), Fl. Bristol.
- 10. Wood near Combe Hay; Brass Knocker Wood (D. Fry); Monkton Farleigh Wood (and on the open down just outside it!), Fl. Bristol.

# HELLEBORINE, Hill (Epipactis, Adans.).

H. LATIFOLIA, Druce (Epipactis latifolia, All.).

Railway banks near East Anstey, in considerable quantity, June, 1905; too young to determine accurately, and a root which I dug up died.

2. Crowcombe Heathfield, W. B. Butler.

3. Near West Monkton, J. Millington; seen fresh.

5. Breach Wood, High Ham. W. Watson.

8. Milton Clevedon Wood. Occasionally south of Wells (Miss Livett), Fl. Bristol.

9. Court Hill, Clevedon (R. Mason); Winscombe (D. Fry),

Fl. Bristol.

 Failand (R. Baker); woods near Houndstreet and at Stantonbury, and Brass Knocker Wood (D. Fry); Publow; Edford, Fl. Bristol.

Var. media (E. media, Bab.).

9. Cheddar Gorge! (G. C. Druce), Fl. Bristol.

 Houndstreet Woods and Stantonbury (D. Fry); woods between Hallatrow and High Littleton, and towards Clutton; two plants in Crox Bottom, Gurney Slade, 1909 (Miss Roper and R. V. Sherring), Fl. Bristol.

I grew two roots from Cheddar for some years; the basal hunches of the labellum were smooth, as in Surrey plants named for me by Prof. Babington as his *E. media*. In September, 1913 I saw a good quantity of the type towards the head of Cheddar Gorge, both on open limestone screes and among bushes; so it appears that both forms grow there.

H. LONGIFOLIA, Rendle & Britten (E. palustris, Crantz).

3. Locally abundant on several moors near Wiveliscombe, Bathealton, and Milverton.

6. Chard Common, W. D. Miller.

9. Weston-super-Mare (Herb. Stephens); still there!, Fi. Bristol. Hollows of the sandhills, north of Berrow Church; very local.

10. Marshy field above West Town, Nempnett (Dr. Gough),

Fl. Bristol.

### ORCHIS, L.

O. PYRAMIDALIS, L.

3. Stoke Hill, with white flowers, W. B. Butler, Hatch Beauchamp, W. Watson.

5. High Ham, W. Watson. In plenty near Dunball.

 Portishead; Weston-in-Gordano; between Wraxall and Stone-edge Batch; Cadbury Hill; Worle Hill; Up-

hill, Fl. Bristol.

10. By the Avon under Leigh Wood, scarce; roadside banks, going up from Chew Stoke to Dundry (D. Fry); upland pastures between Woollard and Queen Charlton, and between Compton Dando and Keynsham; wood near Chewton Keynsham; above Combe Hay; abundant about the Brass Knocker (A. E. Burr), Fl. Bristol.

O. USTULATA, L.

9. "Stated by Mr. F. A. Knight to be a characteristic plant of Brean Down. I have no other record for that locality." Fl. Bristol.

10. Formerly on Leigh Down (T. B. Flower), Fl. Bristol.

O. MASCULA, L.

 With pure white flowers on Worle Hill (Mrs. Gregory), Fl. Bristol. Albinism is much more frequent in O. morio.

O. INCARNATA, L.

3. Typical and locally abundant on Slape Moor, Clean Moor, etc., near Milverton, Wiveliscombe, and Bathealton.

8. Abundant on the peat moors!, Fl. Bristol.

9. Max Valley below Winscombe; Berrow, Fl. Bristol.

Strong forms (not seen by me in Somerset) have leaves as broad as in fine O. latifolia. I think that more than one species under this name grows in Britain. Doubtless commoner in the county than the records suggest.

O. LATIFOLIA, L.

2. Crowcombe. Stogumber.

3. Near Norton Fitzwarren.

6 Chard Common.

8 Wedmore, Fl. Bristol. Burnham.

 Clapton and Walton Valley; Kenn Moor; under Stoneedge Batch near Tickenham; Langford; Lympsham, Fl. Bristol. Weston-super-Mare. Between Berrow and Brean; the rare form with blotched leaves occurs here.

 Leigh Woods (Swele, Fl.)—still there in a low-lying marsh near the Avon; Failand (D. Williams); between Chewton, Keynsham and Compton Dando, Fl. Bristol (\*Keynsham? in Fl. Som. should read Pensford).

(), LATIFOLIA X MACULATA.

- 2. On a damp clayey upland common, north-east of Stogumber Station.
  - 4. Boggy ground at the south end of Chard Reservoir.
- 10. Marsh near the Chew above Pensford (D. Fry), Fl. Bristol.
- O. ERICETORUM, Linton (O. maculata, var. praecox, Webster). Native. Moors, heaths, meadows, etc.; common, except on calcareous soils. Late May to early July.

1. Near Exford, W. Watson. Abundant between East

- Anstey and Brushford. Winsford, Exton, etc.
  2. Crowcombe Heathfield. Stogumber. Near Minehead and Dunster.
- Meadow by a stream below Coombe, West Monkton. Plentiful on moors near Wiveliscombe, Bathealton, and Milverton.

4. Abundant on Staple Common.

Between Castle Neroche and Buckland St. Mary.
 Moors and meadows about Shapwick and Ashcott.

Not mentioned in Fl. Bristol.

I have known this plant for over thirty years, and believe it to be a good species, after examining many thousands of specimens. It varies much in luxuriance, according to the situation; yet I have seldom found much difficulty in separating it from what we call type-maculata. They sometimes grow together; but the latter replaces it on limestone soils. Dr. Moss lately told me that he believed O. ericetorum to be the Linnean type of O. maculata; if so, it is strange that I could see no good ericetorum among the European material either at Kew or S. Kensington. In the south-west of the county it is certainly the prevailing plant; but my correspondents seldom discriminate between the two.

O. ERICETORUM X LATIFOLIA.

2. North-east of Stogumber Station.

# ACERAS, Br.

A. ANTHROPOPHORA, Br.

Native; but extremely rare, and supposed to be extinct. On

a limestone pasture. May, June.

9. Near Weston-in-Gordano, at 300 feet (A. E. G. Way), Fl. Bristol. Unfortunately the finder's gamekeeper, being told to lift some of the roots, dug up all that he could see; but it may still persist. This is a great extension of its range westwards, though less surprising than the occurrence of Liparis Loeselii, Rich. in Wales.

# OPHRYS, L.

O. APIFERA, Huds.

2. Watchet, H. Slater.

3. Hatch Beauchamp; Pitminster, W. Watson.

4. Staple Fitzpaine.

5. Stawell, H. Slater. Between High Ham and Pitney.

8. Shepton Montague, W. Watson.

 Wraxall; Cadbury Camp; near Yatton; Barley Wood, Wrington; top of Mendip at "Wright's Piece" (Dr. C. E. Moss); Worle Hill; dune marsh near Berrow!; Easton and Lyat, near Wells (Miss Livett), Fl. Bristol.

 Abbotsleigh (E. F. Young); Failand Hill; Whitchurch, and railway bank between there and Brislington; Ursleigh Hill near Pensford; Duncorn Hill, Fl. Bristol.

Var. Trollii, Reichb. fil.

"A beautiful form, and certainly well worthy of distinction as a true variety of O. apifera. The central lobe of the labellum, viewed in front, presents a long triangular outline four times as long as broad, tapering from the base into an attenuate, little-reflexed point. The tinting of the lip is paler and more yellow than the type; and the sepals are rather longer and more acuminate. 'Labello acute triangulo elongato lobis lateralibus plus minusve obsoletis.'—Reichb. Iconogr." Fl. Bristol, where a first-rate drawing by Mr. F. Cundall is given. Collinson called it the Wasp Orchis.

Hegetschweiler's original O. Trollii, only once found near Winterthur, Switzerland, is well figured from a type-specimen by Max Schulze in Die Orchidaceen Deutschlands, Deutsch-Oesterreichs und der Schweiz: it is more extreme than the British plant, having long, leafy bracts; longer, narrower, and more acute sepals; and a narrower, longer, still more tapering

lip.

 One plant on Mendip between Sidcot and Axbridge, 1907; one in Tyntesfield, 1908, Fl. Bristol.

10. Stony bank under Leigh Woods-four plants in 1885,

Fl. Bristol.

It has occurred in larger quantity, north of the Avon.

O. MUSCIFERA, Huds.

2. Watchet, II. Slater.

9. West Park Wood, north of Cadbury Camp (F. Beames,

1911), Fl. Bristol.

 In and about a wood near Fortnight; Brass Knocker Wood (A. E. Burr, 1887), Fl. Bristol.

### HABENARIA, Willd.

H. CONOPSEA, Benth. (Gymnadenia conopsea, Br.).

3. Locally abundant on wet moors near Milverton, Bathealton, and Wiveliscombe.

4. Castle Neroche; plentiful, W. B. Butler. Staple Common.

Bog at the south end of Chard Reservoir.

S. Near Bruton, W. Watson. Meadow near Shapwick Station, E. J. Hamlin. Moors near Wells (Misses Livett

and Mayow), Fl. Bristol.

9. Weston-in-Gordano (Rev. G. W. Braikenridge); near Clevedon (W. E. Green and T. B. Flower); Yeo Valley, in abundance (Dr. Gough); meadows by Max, Winscombe; Blackdown, Fl. Bristol. Slopes above Draycott.

 Failand (D. Williams); Potter's Hill; Portbury (Misses Hill and Peacock); Whatley (Rev. S. Laing), Fl. Bristol.

H. VIRIDIS, Br.

5. High Ham Hill, W. Watson.

 Bruton, W. Watson. Polden Hills near Shapwick, E. J. Hamlin. In sone plenty towards Shepton Mallet (Miss

Garaway), Fl. Bristol.

9. Weston-in-Gordano (Miss Livett); Portishead Down, one plant, 1910; Yeo Valley (Dr. Gough); pastures on Mendip above Cheddar; Goatchurch Gorge, Burrington (Miss Roper); Hutton, Fl. Bristol. Between Berrow

and Brean, 1913, E. J. Hamlin.

 In several fields between the Bridgwater Road and Dundry Hill; Failand, in many fields laid up for hay (D. Williams); in similar fields between Failand Hill and Pill; Portbury; East Harptree (Herb. Lawrence, 1850); Beacon Hill and Tadd Hill (R. V. Sherring); Mells, Fl. Bristol. H. BIFOLIA. Br.

4. Staple Common. North of Chard.

5. Near High Ham. Aller, W. D. Miller, sp.

6. Between Castle Neroche and Buckland St. Mary.

- 9. Moist fields near Max Bog, below Winscombe (Mrs. Gregory), Fl. Bristol.
- H. VIRESCENS, Druce (chloroleuca, Ridley; chlorantha, Bab.).

1. Dulverton, W. Watson.

2. Watchet. St. Audries.

 Wood near Hatch Beauchamp. Pitminster; Corfe, W. Watson.

8. In profusion on Twine Hill, and in other places near Wells

(Miss Livett), Fl. Bristol.

 Nightingale Valley and Weston Big Wood; Clevedon (Rev. G. W. Braikenridge); Banwell; Christon; Charterhouse on Mendip (Miss Roper); Ebbor, Fl. Bristol.

10. Failand (D. Williams); copse between Barrow Gurney and Yanley Lane; Charlton Woods near Portbury (Misses Hill and Peacock); Chewton Keynsham; Featherbed Lane, between Stanton Wick and Clutton (D. Fry); Buckland Dinham (Dr. H. F. Parsons); wood near Kelston; Warleigh Wood and the Brass Knocker (D. Fry), Fl. Bristol.

# IRIDACEAE.

# IRIS, L.

I. FOETIDISSIMA, L. More plentiful, especially on the Lias, than in any other county with which I am acquainted.

2. Tivington, H. W. Pugsley. Williton. Washford. Near

Allerford.

3. Hills above Pitminster and Corfe. Thurlbear. Stoke St. Mary. West Monkton; scarce. Cannington.

5. Dunball. Aller.

8. Puriton.

9. Wraxall; Cleeve!, Goblin Combe, and Wrington; Bleadon Hill! (H. S. Thompson); Uphill!; sandhills between Brean and Burnham!; about Hinton Charterhouse and Midford, Fl. Bristol.

Var. citrina, Bromfield.

 (or possibly 8). A specimen was sent to Mr. H. Corder from the Polden Hills in the summer of 1907. I. PSEUDACORUS, L., var. Bastardi (Boreau).

9. Boggy field below Winscombe (Miss Roper, 1904), Fl. Bristol-" with pale lemon-coloured sepals not having any orange spot at the base of the blade."

IMiss Falcon has found sparingly in a damp meadow near Milverton, dis. 3, a spring-flowering Crocus, probably C. vernus, L.; I have seen her coloured drawing.]

ISISYRINCHIUM ANGUSTIFOLIUM, Miller was found growing near the golf links at Burnham by Mr. C. F. Vincent (G. C. Druce in Journ. Bot., 1906, p. 426); doubtless introduced, as it is only native in W. and S.W. Ireland, so far as Europe is concerned.]

# AMARYLLIDACEAE.

# NARCISSUS, L.

N. PSEUDO-NARCISSUS, L.

3. Meadow at Coombe, West Monkton. Hatch Beauchamp.

West Hatch. Pitminster. Norton Fitzwarren.

9. Nailsea; Yatton; valley between Portbury and the upper Clevedon road; near Cadbury Camp; in profusion over many acres in meadows near Churchill; Langford; Compton Martin Wood (Miss Roper), Fl. Bristol.

10. Field north of Pensford; Bourton Combe; Lord's Wood, Houndstreet; in two spots near Chew Stoke (D. Fry); Redhill; near Winford; meadow at Prior Park, Fl. Bristol.

[N. INCOMPARABILIS, Miller.

3. Adcombe Woods-the double-flowered 'Butter and

Eggs,' W. B. Butler.

9. Churchill (Herb. Lawrence, 1850), not seen recently; orchard near Axbridge (W. B. Waterfall, 1881), Fl. Bristol.

N. BIFLORUS, Curt.

2. Sparingly outside a wood at St. Audries, 1905.

3. Plentiful at West Hatch, W. B. Butler.

Meadow at Churchill, in great quantity; still in the old orchard at Pill, 1909, Fl. Bristol.

10. Between Flax Bourton and Barrow Gurney, in small quantity; Friary Wood between Freshford and Hinton Charterhouse, apparently planted (D. Fry), Fl. Bristol. [N. POETICUS, L.

- South side of Dolebury Camp, near a ruined cottage (F. A. Knight); orchard near Axbridge (W. B. Waterfall); in considerable quantity in a fir plantation above Compton Martin (Dr. Gough, 1910), originally sprung from garden refuse cast out from a neighbouring farm; one patch in Compton Martin Wood (Miss Roper), Fl. Bristol.
- Friary Woods between Freshford and Hinton Charterhouse, apparently planted (D. Fry, 1886), Fl. Bristol.

# GALANTHUS, L.

G. NIVALIS, L.

 By the Barle between Dulverton and the Station, with Daffodils.

3. Stream below Trull, with double flowers, W. B. Butler.
This may be the same as the Broughton Brook, which is said by the Rev. D. P. Alford (Taunton and Taunton Deane) to have been formerly known as the Snowdrop

Stream. Stogumber, W. D. Miller.

9. One clump at Bourton Batch, not far from Butcher's Broom and Daffodils (Miss Roper); pasture between Portbury and the upper Clevedon road; wood border between Naish House and Cadbury Camp, with Daffodils; at the bottom of the lane that skirts the eastern end of Dolebury (F. A. Knight); Compton Martin Wood, Fl. Bristol.

10. Hedgebanks at Whitchurch (Rev. W. H. Painter, 1881); meadow and laneside on the left bank of the Chew below Woollard: on both sides of the stream for about half a mile at Hollow Brook, Bishop Sutton: also along the Chew for a considerable distance on both banks, and in a marshy wood adjoining, between Coley and South Widcombe (F. Samson); banks in an old lane at Litton, and on the edge of a deserted cultivation by the hamlet of Sherborne; on the Chew near Chew Stoke (D. Fry); "Stoke Lane valley near Edford, in far larger quantity than I at first reported. There is at least an acre of the plant in some swampy woodland, and it occurs also sparingly on the Downside Common bank of the stream . . . On one visit I tracked this charming flower about a mile up stream, and a keeper told me that it extended almost continuously lower down through Mells Park to Dead Woman's Bottom and Murdercombe, near Great Elm, in all about ten miles," Fl. Bristol.

More space than usual has been allotted to the Snowdrop, because I believe that its status in Britain has been underestimated. Had he known all the facts, Mr. Murray would hardly have called it an alien, tout court; though this, or at best a denizen, truly describes its usual rank, except in the West, and it is so in many of its Somerset localities. As far back as 1883 I saw it at Edford Wood, accompanied by the Daffodil and Aconite, with both of which it frequently grows, and judged all three to be native. It prefers the banks of brooks and small rivers, especially in hilly districts; but the early flowering-season, long before most botanists have begun their excursions, may have caused it to be often overlooked. The upper, less frequented parts of such rivers as the Exc, Barle, and Haddeo should be further searched; I think that it will prove to be above suspicion.

#### LEUCOJUM, L.

[L. AESTIVUM, L.

9. Uphill (T. F. Perkins); Langford (Mrs. Gregory); "this plant could occur with us only as a straggler or relie of cultivation," Fl. Bristol. Surely that is too sweeping; for it grows wild in two adjoining counties, Wilts and Dorset (though not in Devon, Cornwall, or Glamorgan), as well as in the south and west of Ireland.

L. VERNUM, L.

Denizen, or possibly native. Damp, bushy ground; most

rare. February, March.

2. For some years Miss M. A. Hellard has known this in a station — better not precisely indicated — between Bishop's Lydeard and Williton, where she has kindly shown it to me in full flower (Feb. 24, 1914), and fairly plentiful. Only found elsewhere in Britain near Bridport, Dorset; absent from W. France, but reputed wild in Belgium.

# LILIACEAE.

# RUSCUS, L.

R. ACULEATUS, L.

 Dulcote Hill, Wells (Rev. T. F. Ravenshaw in Phytol, N.S., 1857), Fl. Bristol. Hedgerows near Bruton; there ealled 'Brickly Box,' C. E. Moss.

ealled 'Brickly Box,' C. E. Moss.

9. Hedge on Mendip near Axbridge, 1883. A very large patch near the bottom of Belmont Hill towards Bourton

Batch: no garden near, but a mound of ruined walls on which Periwinkle grows marks the site of some old-time dwelling; roadside hedge near Churchill, certainly planted; hedge beside the fountain, Sidcot, no doubt planted (W. F. Miller); hedgerows in Compton Martin and Butcombe (Dr. Gough); Walton-in-Gordano, probably introduced, Fl. Bristol.

# ASPARAGUS, L.

A. MARITIMUS, Miller (officinalis, L., in part).

2. Between Blue Anchor and Dunster (as A. officinalis, var. altilis), C. E. Salmon in Journ. Bot., 1899, p. 411.

 Portishead: five or six stems on a bank near the Station (Misses Cundall, 1910); sparingly on moist sand at Weston-super-Mare (Miss Roper, 1909); still in some quantity near Burnham, 1910, Fl. Bristol.

[10. Two stems in the footway near the top of the North Road,

Bath (Miss Roper), Fl. Bristol.

From personal observation both on our own coasts and those of W. France I am led to believe that the difference between the erect and the prostrate forms is due to environment; and it seems as wild in Somerset as anywhere in England. Native in Glamorgan!

# POLYGONATUM, Hill.

P. MULTIFLORUM, All.

8. Croscombe, Fl. Bristol.

10. Emberrow, 1883. Formerly in Leigh Woods, but probably destroyed in making the Portishead railway; Failand; Charlton Woods; Portbury (Misses Cundall, 1883—still there, 1910); Stoke Lane valley (Miss Livett); plentiful in Murdercombe; Binegar, Fl. Bristol.

P. OFFICINALE, All.

2. Oare, 1912, H. S. Burnell-Jones, sp.; new for S. Somerset.

# CONVALLARIA, L.

C. MAJALIS, L.

3. A pink-flowered form occurs in Tetton Woods, F. J.

Hanbury.

 In several parts of the range of woodland between Cleeve and Wrington, commencing near the top of the Rhodyate Hill and continuing westward as far as the Woodlands, Congresbury; Lyncombe Hill, near Churchill (F. A. Knight), Fl. Bristol.

# ALLIUM, L.

A. AMPELOPRASUM, L.

Minchead Warren, 1905, at one spot near the beach.
 Not an escape, but perhaps sprung from sea-borne seed; it flowers freely every summer in my garden,

but in the wild state is browzed by animals.

9. Mr. White gives a seventeenth-century account of its occurrence on Steep Holm:—"a kind of wild garlicke, esteemed to be of noe more value than the cuttinge and carrieinge awaie, nor yet that." I believe that Ray's record referred to the Flat Holm, where it still grows. In cultivation it is somewhat stronger and taller than the Garden Leek (A. Porrum); and I think them distinct.

#### A. VINEALE, L.

2. Minehead, W. Watson.

- Trull; Norton Fitzwarren, W. Watson. Near West Monkton and Kingston. North Curry, towards Fivehead.
- 5. Aller, Miss A. Miller, sp. Stawell, H. Slater. Pitney.

6. Near Buckland St. Mary.

8. Bruton, W. Watson.

 Not very common but generally distributed, Fl. Bristol.

Var. bulbiferum, Syme.

3. Pitminster, W. Watson.

9. Strawberry Hill, Clevedon (Mrs. Lainson); Brean Down, sparingly, Fl. Bristol.

 Near Keynsham; near Stanton Drew (Miss Ruddock), Fl. Bristol.

A. OLERACEUM, L.

4. Bank of a lane, south of Staple Fitzpaine, 1911; only one

plant seen.

10. Roadside hedgebank for at least 200 yards, between Haberfield Bridge and Easton-in-Gordano (F. Beames, 1910); edge of two fields at Easton-in-Gordano (D. Williams); still at Ashton Fields, 1907; near Abbotsleigh; field between Ursleigh Hill and Publow (D. Fry); border of a wood near Bathampton (Miss Peck), Fl. Bristol.

[Muscari racemosum, Lam. & DC. grew for several years on a bank near Wellow, dis. 10 (Mrs. Dent Young), Fl. Bristol.]

# SCILLA, L.

S. NON-SCRIPTA, Hoffmgg. & Link (S. nutans, Sm.).

Var. bracteata, Druce.

- Pillgrove Wood near Long Ashton (A. E. G. Way), Fl. Bristol. Constant in cultivation; but perhaps rather a form than a variety.
- [S. HISPANICA, Miller (campanulata, Aiton) was found by Mr. James Britten and myself on the edge of a wood near Stoke St. Mary, dis. 3, in 1911; a garden escape.]

# ORNITHOGALUM, L.

O. UMBELLATUM, L.

3. Thurlbear Woods, 1905, W. B. Butler.

 Field of green fodder, Wraxall (Miss Peck, 1906); Waltonin-Gordano, probably on the site of an old garden; Max Mills and Langford (Mrs. Gregory), Fl. Bristol.

10. Formerly on a field-border at Lower Failand, now gone (Miss Agnes Fry); Saltford withy-bed (D. Fry), partly destroyed by the erection of a new boat-house; slope near Kelston Station, extending about 100 yards (Misses Cundall); wood at Whatley (Rev. S. Laing); Brassknocker Woods (Herb. Flower, 1846); South Stoke (Herb. Jenyns, 1851); quarry on Widcombe Hill, Bath (Mrs. Dent Young), Fl. Bristol.

O. PYRENAICUM, L.

 Nunney (Rev. S. Laing), four miles farther south than Oldford, Fl. Bristol; detailed localities for the Bristol and Bath neighbourhood are given.

# LILIUM, L.

L. MARTAGON, L.

Denizen. Copses, etc.; very rare. June, July.

10. Three or four plants at the edge of a wood above the brook near Bishopsworth (J. L. Hopkins); woodland in Prior Park near Bath: a good many plants in company with Solomon's Seal and native vegetation, possibly the remains of cultivation, but now completely naturalised, Fl. Bristol.

# FRITILLARIA, L.

F. MELEAGRIS, L.

9. In two fields west of Barrow Gurney (Mrs. Alfred Brittan and Prof. Leipner, 1891), Fl. Bristol.

10. "Reported from meadows in Litton parish: this has been closely inquired about on the spot, but intelligent villagers know nothing of the flower." Fl. Bristol.

# TULIPA, L.

T. SYLVESTRIS, L.

5. In an orchard at Wheathill, 1912, Rev. W. G. Paterson.

10. Hinton Blewett (Miss Hooper, 1853, in Herb. Lawrence); not known there now, Fl. Bristol. Mr. White says that the Englishcombe locality in Fl. Som. is the same as that at Combe Hay, which was laid down to grass in 1885; he believes that the Tulip, which is still abundant over a large area, but now flowers very little, must have flourished there long before enclosures or construction of the canal.

# GAGEA, L.

G. LUTEA, Ker-Gawler (fascicularis, Salisb.).

10. Copse on Failand Hill (Mrs. Alfred Brittan); Smallcombe Wood, Bath (Miss Martin); Collett's Wood on Claverton Down, and wood between Midford and Limpley Stoke (A. E. Burr)—the latter locality may be either in Somerset or Wilts; Old Ford, near Frome (D. Fry); copse between Frome and Beckington (Dr. Parsons). Fl. Bristol.

# COLCHICUM, L.

C. AUTUMNALE, L.

3. Near Norton Fitzwarren, W. B. Butler. Stoke St. Mary, W. Watson. Buncombe Wood, Kingston.
5. Queen's Camel, with white flowers, G. W. Moody.

8. Bruton, W. Watson. Horrington Bottom, Fl. Bristol. Croscombe.

9. Weston-in-Gordano; Clevedon (W. E. Green); Hartcliff Rocks; Wrington; woods near Yatton and Congresbury; Churchill; Sidcot, Shipham, etc.; Axbridge, Fl. Bristol.

10. Many stations are given in Fl. Bristol.

# NARTHECIUM, Huds.

N. OSSIFRAGUM, Huds.

6. Blackwater, near Castle Neroche.

9. Peaty fields by Max Bog, near Winscombe (Miss Livett), Fl. Bristol.

# PARIS, L.

P. QUADRIFOLIA, L.

3. Adcombe Wood, near Pitminster.

8. Milton Clevedon Wood, C. E. Moss. Bruton, W. Watson. Ham Woods, near Croscombe (Miss Roper), Fl. Bristol.

9. Rectory Wood, Wraxall (J. W. Eves); Limeridge Wood,

Tickenham; Congresbury, Fl. Bristol.

10. Failand (Miss Agnes Fry); Maes Knoll; Charlton Woods, Portbury, etc.; near Clutton, Temple Cloud, and Farrington Gurney; Crox Bottom, Gurney Slade; East Harptree Combe (Herb. Lawrence); woods between Midford and Hinton Charterhouse, and on Fortnight Farm; Collett's Wood, Prior Park, Fl. Bristol.

# JUNCACEAE.

# JUNCUS, L.

J. BUFONIUS, L., var. fasciculatus, Koch.

8. On the peat moors (Dr. C. E. Moss), Fl. Bristol.

 Blackdown on Mendip (Dr. C. E. Moss); Berrow, in hollows among the sandhills, Fl. Bristol.

J. SQUARROSUS, L.

1. Near Winsford.

J. COMPRESSUS, Jacq.

3. Roadside at Manworthy, between Wiveliscombe and Bathealton.

 On a small area of meadow, Sedgemoor, between Sutton Mallet and Weston Zoyland; two or three patches, H. Slater, sp.

9. Rodney Stoke (C. Bucknall); Clevedon (Mrs. Lainson

and Leo H. Grindon), Fl. Bristol.

10. Keynsham Hams, south of the railway embankment (D. Fry), Fl. Bristol.

J. GERARDI, Lois.

2. Porlock Weir. Minehead. Stolford to Steart.

J. EFFUSUS X INFLEXUS (J. diffusus, Hoppe).

3. Holme Moor, between Wiveliscombe and Bathealton.

5. Sedgemoor, W. Watson.

8. Bruton, W. Watson. Several clumps near together on the peat of Catcott Moor, about half a mile south of the railway, Fl. Bristol. J. MARITIMUS, Lam. On salt-marsh sand near Berrow !, Fl. Bristol.

J. BULBOSUS, L. (supinus, Moench).

1. Moors near East Anstey.

9. Ditches on the moors below Weston-and Walton-in-Gordano; bogs on the slopes of Blackdown, Fl. Bristol.

J. SUBNODULOSUS, Schrank (obtusiflorus, Ehrh.).

2. Between East and West Quantoxhead, 1847, Herb. Clark (II. S. Thompson).

3. Fine and locally plentiful on several moors near Wivelis-

combe, Bathealton, and Milverton.

8. Sharpham Park (T. Clark, 1848); Walton Heath near Glastonbury (D. Fry); on a part of Shapwick Moor, where it extends quite half a mile, Fl. Bristol.

9. Nailsea Moor (Miss Livett); Clapton and Weston Moors,

Fl. Bristol.

10. Near Ham Green (Miss Roper); low-lying pasture between Hallatrow and Litton, Fl. Bristol. Nempnett; abundant, C. E. Salmon.

J. ARTICULATUS, L. (lampocarpus, Ehrh.).
I agree with Mr. White in thinking the Berrow coast-plant only a variation, though a decidedly interesting one. J. nigritellus, D. Don was probably an alpine form of the type, but remains ambiguous.

J. SYLVATICUS, Reichard (acutiflorus, Ehrh.). I have seen this in districts 1 and 3.

# LUZULA, DC.

L. Forsteri, DC.

2. Langridge, Withycombe, etc., H. Slater.

3. West Monkton. North Petherton.

L. SYLVATICA, Gaud. (maxima, DC.).

1. Haddeo Valley above Hartford. Near Exton.

2. Malmsmead, C. E. Salmon.

9, 10. Very abundant in many places, but not of general distribution; "local in the oak and the ash woods of N. Somerset: absent from the oak-hazel woods; most frequent in woods on the Greensand" (Dr. C. E. Moss), Fl. Bristol.

L. MULTIFLORA, DC. (erecta, Desv.).

1. Moors between East Anstey and Brushford.

4. Staple Common. Near Chard Reservoir.

6. Near Castle Neroche.

9. About the Mineries on Mendip, Fl. Bristol.

# TYPHACEAE.

# TYPHA, L.

T. LATIFOLIA, L.

2. Marshy coast below Dunster.

3. North Newton, W. Watson. Bathpool. Thurlbear.

4. Chard Reservoir.

5. Dunball. Othery. Weston Zoyland. 8. Bruton, W. Watson. The plants which I have examined on the peat moor near Shapwick and Ashcott seemed to be typical; but I do not know var. media, Syme.

9. Nailsea; Tickenham; Walton Moor; Puxton; Worle,

etc., Fl. Bristol.

10. Marsh near Ham Green; Bishop Sutton; Litton; Houndstreet and Great Elm (Miss Roper), Fl. Bristol.

T. ANGUSTIFOLIA, L.

3. There is a Wembdon specimen in Herb. Clark, 1853 (H. S. Thompson).

4. Swamp near the north-east end of Chard Reservoir, and very luxuriant by the waterside, 1907.

8. Ditch by the roadside between Brent Knoll Station and Burnham (S. T. Dunn), Fl. Bristol.

9. Rhine between Cheddar and Yatton, very small (Miss Mules, MS.), Fl. Bristol.

# SPARGANIUM, L.

S. ERECTUM, L. (ramosum, Curt.).

Var. microcarpum, Neuman (under ramosum).

9. Peaty ditches on the moor below Weston-in-Gordano;

pond at Kenn (Miss Livett), Fl. Bristol.

10. Abundant in the brook running through Keynsham Hams between the railway and the Bristol Road (D. Fry), Fl. Bristol.

S. NEGLECTUM, Beeby.

3. Ditch in a meadow near Bathealton. Apparently very rare in Somerset.

S. SIMPLEX, Huds.

2. Frequent in ditches near the coast, Stolford.

3. Combwich.

8. Wedmore, Fl. Bristol.

9. Weston and Tickenham Moors (Miss Livett); Lox Yeo River below Winscombe—the floating form (H. S. Thompson); marshland below Cheddar, etc., well distributed, Fl. Bristol.

10. Ditches and marshland about Ashton (Swete, Fl.); canal

between Camerton and Radford, Fl. Bristol.

S. MINIMUM, Fr.

8. Tarf moor, Burtle (Herb. Clark, 1835-6); one or two plants in a ditch on Shapwick Moor, with Utricularia minor (C. Bucknall, 1906), Fl. Bristol. On September 25th, 1913 I found it abundant in a shallow pool about half-way between Shapwick and Ashcott Stations; the fruit was mostly shed, and floated on the surface.

#### ARACEAE.

# ACORUS, L.

A. CALAMUS, L.

8. In old turf-pits at Wedmore (Sole in Collinson's Hist., 1791), Fl. Bristol. Not seen since.

9. Pond at the entrance to Barrow Court, flowering plentifully in 1904. Fl. Bristol.

# LEMNACEAE.

# LEMNA, L.

L. TRISULCA, L.

3. Common about Taunton!, W. Watson. Northmoor, etc.

 Langport; common, W. Watson.
 Bruton; rare, W. Watson. Common throughout the levels south of Wedmore, Fl. Bristol. Plentiful in ditches, etc., about Highbridge.

9. Weston, Clapton, and Walton Moors; Tickenham Moor (Miss Livett); ditches in the lowlands of the Cheddar

Valley, Fl. Bristol. Uphill.

L. GIBBA, L.

2. Plentiful in marsh-dykes, Stolford to Steart.

3. Bathpool; North Curry, W. Watson. Ruishton. Northmoor.

- 5. Common about Chedzoy and Weston Zoyland.
- 8. Highbridge. Ditches near Brent Knoll Station. 9. Rhines below Cheddar (T. B. Flower), Fl. Bristol.
- Coal canal at Midford (C. Bucknall); brackish ditches, Portbury and Easton-in-Gordano, Fl. Bristol.

L. POLYRRHIZA. L.

3. North Newton; Bathpool; pools, east of Taunton, W

8. Plentiful below Wedmore, Fl. Bristol.

9. Kenn; below Cheddar; rhines near Honey Hall, between Churchill and Congresbury, Fl. Bristol. Pond near the Station, Uphill.

10. Ditches under Failand, and near the Portishead railway; Sheep House, near the Channel (Miss Agnes Fru), Fl.

Bristol.

Found in flower near Wedmore, July, 1906 (Mrs. Gregory and Miss Peck), Fl. Bristol; the first known instance in Britain.

# WOLFFIA, Horkel.

W. ARRHIZA, Wimmer (W. Michelii, Schleid.; Lemna arrhiza, L.).

Apparently native. Pools; very rare.
3. Discovered by Mr. W. Watson (who brought me fresh specimens) in June, 1911, a little to the east of Taunton, and very near the boundary of my own parish. He made a careful search for flowers, but could find none, even in that remarkably hot summer. Formerly this minute and remarkable plant was unknown, west of Sussex; but it has now been found in two Glamorgan stations.

# ALISMACEAE.

# ALISMA, L.

ALISMA LANCEOLATUM, With.

9. Yeo Reservoir, C. E. Salmon. In a small pool among the sandhills north of Berrow Church.

This seems distinct enough from A. Plantago-Aquatica, L. to rank as a species or subspecies.

A. RANUNCULOIDES, L.

3. Ditches on Northmoor, between Maunsel and Athelney.

4. Very scarce, 1907, on the east side of Chard Reservoir.

8. South-east of Shapwick Station, 1913.

9. Tickenham Moor, etc., and as far as the district extends to the south-west, Fl. Bristol.

Var. repens (Davies).

 Peaty waters of the moor between Shapwick and Ashcott Stations (Dr. C. E. Moss), Fl. Bristol.

# SAGITTARIA, L.

S. SAGITTIFOLIA, L.

2. Ditches near Stolford.

3. In the canal near Taunton!, W. B. Buller. North Curry. Combwich.

5. Common in rhines at Chedzoy and Weston Zoyland.

8. Wedmore; near Brent Knoll !, Fl. Bristol.

9. Clapton and Weston-in-Gordano Moors, Fl. Bristol.

A very pretty narrow-leaved form (probably the var. parvifolia, Sibth.) was found in 1907 near Nyland; but Mr. White thinks that it may be only a transient state, unworthy of distinction by name.

# BUTOMUS, L.

B. UMBELLATUS, L.

2. Allerford, W. B. Butler. Stolford.

3. Combwich!, C. E. Salmon. Norton Fitzwarren, W. B. Butler. Bathpool. North Curry.

5. Between Chedzoy and Bridgwater!, C. E. Salmon.

Kenn Moor, near Congresbury Station; Kingston Seymour; near Weston-super-Mare; Brean!, and in many spots between Berrow and Brent Knoll!, Fl. Bristol.

 Pond by Ham Green (Miss Roper); near Pill (Miss Cundall); in the Camerton and Midford Canal; by Kelston weir on the Avon, Fl. Bristol.

# NAIADACEAE.

# TRIGLOCHIN, L.

T. PALUSTRE, L.

2. Steart Island, 1824, Herb. Clark (H. S. Thompson).

Moors near Wiveliscombe and Milverton.
 Middlezoy, W. Watson. Weston Zoyland.

8. Burnham; Moors around Wedmore, Fl. Bristol.

- 9. Meadows in the Lox Yeo Valley under Crook's Peak; Brean!; Easton Moor (Misses Livett and Mayow), Fl. Bristol.
- 10. Marsh by the Chew above Pensford; damp field near Failand Hill House (D. Williams), Fl. Bristol.

T. MARITIMUM, L.

- 2. Steart Island, 1824, Herb. Clark. Between Stolford and Steart.
- 3. Common by the tidal Parret from Combwich to its mouth. Too frequent in the Bristol area to need localities.

# POTAMOGETON, L.

P. NATANS. L.

- 3. Orchard Portman; pools, east of Taunton!, W. Watson. Norton Fitzwarren.
- 8. Bruton, W. Watson. An 'occasional species' in rhines on the Levels (Dr. C. E. Moss), Fl. Bristol.

9. Pond on Paywell Farm, Charterhouse-on-Mendip (R. V. Sherring), Fl. Bristol. Pond below Worle village.

10. Organ Pond by Eaker Hill, Chewton Mendip (Miss Roper), Fl. Bristol.

P. POLYGONIFOLIUS, Pourr.

1. Near Exford, W. Watson. Moors near East Anstey. 2. Top of Wilmersham Combe, Horner, W. Watson, sp.

3. Bogs near Milverton and Wiveliscombe.

4. Chard Common.

9. Tickenham Moor (C. Bucknall); boggy rills on the flanks of Blackdown, Fl. Bristol.

10. Downside Common, Edford, Fl. Bristol.

P. COLORATUS, Horem. (plantagineus, Du Croz). 8. Peat ditches near Edington, Fl. Bristol.

9. Kenn Moor (fide A. Bennett), Fl. Bristol.

P. HETEROPHYLLUS, Schreb.

Native. In still water; rare. July, August. 9. Ditch in Portishead marshes (G. Brebner); Clapton Moor; peat ditch in the moor below Weston-in-Gordano, Fl. Bristol.

10. Ditches, Bedminster (Swete, Fl.); disused canal at Paulton, Fl. Bristol.

P. LUCENS, L.

Bathpool!, W. Watson.
 Langport, W. Watson. In the Cary near Somerton.

8. A member of the submerged-leaf association on the peat moors (Dr. C. E. Moss), Fl. Bristol.

P. DECIPIENS, Nolte (P. lucens × perfoliatus?).

10. "Plentiful in the canal at Bath, and along the course of the disused coal canal in such portions as still contain water, near Midford, Combe Hay, Radford and Camerton. It occurs likewise in the Avon between Bath and Bristol, and in the river Brue (dis. 8). These waters, in every instance, contain also the supposed parents. I have never met with a flowering specimen." Fl. Bristol.

#### P. Perfoliatus, L.

3. Canal, Taunton and Durston, W. Watson.

 River Brue near White House, 1859, Herb. Clark (" a form." II. S. Thompson).

9. Pool among the sandhills at Berrow, Fl. Bristol.

10. Canal, Paulton, Fl. Bristol.

#### P. CRISPUS, L.

2. Williton.

3. Taunton, W. Watson. West Monkton. Ruishton.

5. Pitney. Weston Zoyland.

 Bruton, W. Watson. Burnham, 1836, Herb. Clark (H. S. Thompson). Highbridge.

9, 10. Common, Fl. Bristol. Pond near Uphill Station.

# P. DENSUS, L.

5. Pitney. Weston Zoyland.

 Near Walton, 1863, Herb. Clark (H. S. Thompson). In profusion in a mill-lead near the Alham, between Milton Clevedon and Westcombe.

9, 10. Common and well distributed, Fl. Bristol.

# P. Friesii, Ruprecht (mucronatus, auct., non Schrader).

3. In the canal near Bridgwater, H. S. Thompson.

P. PUSILLUS, L.

 Ditches near the Decoy, Porlock Weir!, C. E. Salmon; determined by Mr. Bennett as his form (or var.) pseudotrichoides.

3. Ponds at Walford (West Monkton) and Hestercombe.

Stream at Cole, W. Watson, sp.; a broad-leaved form, approaching P. Friesii, but I think better placed here, especially as no inflorescence was present. Turf moors, 1836, and moor south-east of Burtle, 1837 (Herb. Clark); still abundant, Fl. Bristol.

9. Kenn Moor; Clapton and Weston Moors; ditch near

Brean Down (Rev. J. C. Collins), Fl. Bristol.

Var. tenuissimus, Koch.

8. Catcott Burtle, Fl. Bristol.

9. Tickenham Moor (Miss Livett), Fl. Bristol.

P. PECTINATUS, L.

3. Chilton Trinity, 1858, Herb. Clark (H. S. Thompson).
Canal, Taunton and Durston, W. Watson, sp.

4. Chard Reservoir.

5. Ditches at Weston Zoyland.

- 8. Burnham (H. Audcent), Fl. Bristol. Ditch near Highbridge.
- Yatton (D. Fry); Nailsea Moor; Kenn Moor; pond in the salt-marsh between Uphill and the Channel—apparently this, Fl. Bristol.

10. Coal canal between Hallatrow and Camerton (C. Bucknall),

Fl. Bristol.

P. INTERRUPTUS, Kit. (flabellatus, Bab.).

Ditches inside the Channel sea-bank between Portbury and Portishead; Wick St. Lawrence, Fl. Bristol.
 In the Avon near St. Anne's, and at Saltford (C. Bucknall,

 In the Avon near St. Anne's, and at Saltford (C. Bucknall, fide A. Bennett); in the old coal canal near Bath, Midford, and Combe Hay, Fl. Bristol.

Var. scoparius, Fryer.

8. Near Burnham. Highbridge.

9. Pools between Uphill and Brean Down!, Fl. Bristol.

# RUPPIA, L.

R. MARITIMA, L. (spiralis, Hartman).

9. Salt-marsh at the eastern end of Brean Down (Collins and Clark; still there in 1909, C. Bucknall), Fl. Bristol.

R. ROSTELLATA, Koch.

2. Ditches near Porlock Decoy!, C. E. Salmon. Very plentiful between Stolford and Steart, in shallow, brackish water.

9. Pool near the sea, below Brean Down; Mr. Thompson says that the specimen in *Herb*. Clark is this.

10. Very abundant in rhines along the mud-flats near the mouth of Avon, south side; and in pools at St. George's Wharf and Portbury Wharf, mostly outside the sea-

bank, Fl. Bristol.

# ZANNICHELLIA, L.

Z. PALUSTRIS, L.

3. Kilve, H. S. Thompson.

4. Chard Reservoir.

5. Weston Zoyland,

S. Bruton, W. Watson.

- 9. In the Land Yeo stream below Flax Bourton; Nailsea Moor; Worle; plentiful in the Cheddar Valley lowlands, Fl. Bristol.
- 10. Ditches near Pill; St. George's Wharf; Portbury, Fl. Bristol.

Var. macrostemon (Gay).

- 3. Bathpool !, W. Watson.
- S. Shapwick, W. Watson.
- Z. PEDICELLATA, Fr. (Major Wolley-Dod has informed me that Z. pedunculata, Reichb. differs in having a distinct peduncle, from which the pedicels of the individual fruits spring).

2. In brackish water along the coast between Stolford and

Steart.

- 8. Brackish pool in the sand between Burnham and Highbridge !, Fl. Bristol.
- 9. Pool below Brean Down; typical.

Z. GIBBEROSA, Reichb.

- 3. Canal, Bridgwater, H. S. Thompson; named by Mr Bennett, as stated in Fl. Som., and apparently the first discovery of the segregate in Britain. The ripe fruit is very striking, being strongly muricate on both edges (not only on the back, as in Z. pedicellata.).
- [APONOGETON DISTACHYUM, Thunberg, a S. African plant now much grown in water-gardens, occurs in a pond at Englishcombe (F. Samson), Fl. Bristol.]

# CYPERACEAE.

# CYPERUS, L.

[C. LONGUS, L. is now lost, the site having been ploughed up.]

C. Fuscus, L.

Native. Ditches on peat; very rare. August, September.

9. Valley between the Walton and Cadbury hills (S. J. Coley, 1900), Fl. Bristol; I have beautiful specimens, collected by Mr. White, who gives full details in his book. It should be searched for on other marsh-lands in the county, but is a very local species.

# ELEOCHARIS, Br.

E. ACICULARIS, Roemer & Schultes.

3. Sides of the Bridgwater and Taunton Canal below Maunsel.

E. UNIGLUMIS, Schultes.

Native on the coast; very rare. June, July.
9. Dune marsh by the Channel at Berrow (S. T. Dunn), Fl. Bristol.

A critical species, but easily distinguishable when fresh. It should occur in district 2.

E. MULTICAULIS, Sm.

3. North Newton; Norton Fitzwarren, W. Watson.

8. Frequent on the peat moors between Edington Road and Glastonbury !, Fl. Bristol.

9. Blackdown on Mendip, Fl. Bristol.

10. Downhead Common, Fl. Bristol.

# SCIRPUS. L.

S. PAUCIFLORUS, Lightf.

3. Abundant in muddy ground on Clean Moor, between Wiveliscombe and Bathealton.

8. Peat moor on Shapwick Heath (Mrs. Gregory, 1888),

Fl. Bristol: first notice for N. Somerset.

9. Bogs near the top of Blackdown (C. Bucknall); wet sand in Berrow Marsh (Mrs. Gregory), Fl. Bristol.

S. FLUITANS, L.

3. North Newton, W. Watson-probably on Northmoor, between Maunsel and Athelney.

9. Ditch on Tickenham Moor (C. Bucknall); Blackdown, in shallow boggy rills above Tining's Farm, Fl. Bristol.

S. FILIFORMIS, Savi (Savii, Seb. & Maur.; cernuus, Vahl.; numidianus, Vahl.).

2. Selworthy; near Horner; C. E. Salmon.

9. Peaty valley near Walton-in-Gordano (C. Bucknall and J. W. White); most, if not all, the var. monostachys, Fl. Bristol.

S. SETACEUS, L.

2. Horner, W. Watson.

9. Plentiful in peaty fields of the Max Valley, Winscombe; bogs on Blackdown, and near the Miners' Arms on Mendip, Fl. Bristol.

10. Upper Failand (D. Fry); Lower Failand (D. Williams); west end of the Old Park, Abbotsleigh; spring-head between Dundry and Littleton (F. Samson); between Lord's Wood and Houndstreet (Miss Roper); Rodney Bog, Chewton Mendip (Miss Sherring); frequent on Hampton Down, Bath (A. E. Burr, 1886), Fl. Bristol.

S. Holoschoenus, L.

2. Some years ago the Rev. Prebendary Gilbert E. Smith assured me that this plant grew on the coast near Dunster. I have not met with it; but there is some suitable ground, and the place agrees well enough with Sole's description: "near the sea-side below Watchet"—in fact, no other likely spot exists in the immediate neighbourhood, and I can find none towards St. Audries. In 1906 the solitary clump at Berrow seemed to be in a bad way; but Mr. White mentions that steps have since been taken to preserve it.

S. LACUSTRIS, L.

3. Ford Gate, 1857, Herb. Clark (H. S. Thompson).

4. River Parret, between Bower Hinton and South Petherton.

 Mr. White suspects, with very good cause, that St. Brody's station near Weston-super-Mare belongs to the next species.)

S. TABERNAEMONTANI, Gmel.

Between Minehead and Dunster; frequent in the marshes. Coast below Williton.

North Curry, W. Watson.
 Chard Reservoir, in plenty.

5. Ditches near Weston Zoyland.

Kenn Moor; between Claverham and Clevedon; Tickenham Moor; rhine by the sea-bank near Wick St. Lawrence (F. Samson), Fl. Bristol.

S. MARITIMUS, L.

2. Common in the marshes between Dunster and Minehead.

3. North Curry; North Newton, W. Watson.

 Glastonbury, W. Watson. Turfmoor, 1857, Herb. Clark (H. S. Thompson); I saw it in an overgrown pit, half a mile west of Ashcott Station, not flowering, 1913. Wedmore; Bason Bridge; Meare, Fl. Bristol.

9. Nailsea Moor; Kenn; Kingston Seymour; Wick St. Lawrence; near Worle!; Nyland, Fl. Bristol.

10. Easton-in-Gordano, Fl. Bristol.

Var. conglobatus, Gray (compactus, Koch).

8. Highbridge, H. S. Thompson.

 Ditch below Brean Down!, 1835, Herb. Clark (H. S. Thompson).

Var. monostachys, Sonder. 8. Burnham, H. S. Thompson.

Mr. White says that all the states are to be found more or less frequently (they are, I agree, no better—certainly not good varieties); the one called monostachys being the scarcest. I have not troubled to make notes of their occurrence.

S. SYLVATICUS, L.

1. Locally plentiful between East Anstey and Brushford.

2. Near Crowcombe Heathfield.

3. Taunton; near Bathpool, W. Watson, sp. Moors about Wiveliscombe and Bathealton.

8. Hill's Wood, Bruton, C. E. Moss.

 By the Chew at Publow (Miss Roper); wood between Englishcombe and Rush Hill; bank of the Avon at Twerton (Herb. Flower, 1860), Fl. Bristol.

S. Compressus, Pers. (S. Caricis, Retz.; Blysmus compressus, Panz.).

10. Plentiful on some boggy ground, about three miles west of the Suspension Bridge, 1909, Fl. Bristol. Mr. White believes the three Claverton and Hampton stations to be identical.

# ERIOPHORUM, L.

E. ANGUSTIFOLIUM, Roth.

1. Common about East Anstey and Brushford.

3. Moors near Wiveliscombe and Milverton.

4. Staple Common.

Between Castle Neroche and Buckland St. Mary.
 The Watchetts, near Wells! (Miss Livett), Fl. Bristol.

- Max meadows, Winscombe (T. Compton); in all the bogs on Mendip, including swampy springs on the slopes of Blackdown; hollow among sandhills on the coast near Berrow, Fl. Bristol.
- 10. Barrow Gurney; Litton, Fl. Bristol.

E. LATIFOLIUM, Hoppe.

Native. Swamps and boggy woodlands; rare and very local. May, June.

 Wet copse above the Brockey River, between Brushford and East Anstey; plentiful and fine, August, 1907.

3. Remarkably abundant in some of the marshes about Wiveliscombe, Bathealton, and Milverton, 1910-11; e.g. Clean Moor, Holme Moor, and Slape Moor.

9. Spongy bog on Blackdown, near the summit (C. E.

Salmon, August, 1907), Fl. Bristol.

10. Davis's record from Claverton Wood very likely meant this species; but the station has been drained or otherwise destroyed.

# RYNCHOSPORA, Vahl.

R. EUSCA, Aiton.

8. Old decoy pool near Meare (Dr. Gapper in Herb. Clark, 1832), Fl. Bristol. Neither Mr. White nor Dr. Moss has met with it on the peat moor; but it may still exist there.

# SCHOENUS, L.

S. NIGRICANS, L.

9. Rediscovered on the coast between Clevedon and Portishead by Miss Livett, 1906-a single tuft. Another was found by Messrs. D. Fry and W. F. Miller, in 1900, on Max Bog, near Winscombe; and afterwards a fair quantity by Mrs. Gregory, in a peaty meadow adjoining, Fl. Bristol

# CLADIUM, P. Br.

C. Mariscus, Br. (jamaicense, Crantz).

3. Abundant on the lower side of Holme Moor, near Wiveliscombe, 1910; new for S. Somerset. I have failed to find it in any of the neighbouring bogs.

8. One large clump near Catcott, 1910, H. Corder. An in-

teresting restoration of this fine plant.

# CAREX, L.

C. PULICARIS, L.

1. Moors near East Anstey.

2. Oareford; Selworthy, C. E. Salmon. Stogumber.

3. Moors near Milverton and Wiveliscombe.

4. Damp pasture below Chard Reservoir. Staple Common.

6. Bogs between Castle Neroche and Buckland St. Mary. Walton Moor; Kenn Moor; Shipham Bottom, Black-down; plantation near the upper end of Cheddar Gorge, Fl. Bristol.

10. Between Failand Farm and the Tan-pits, and in several other spots about Lower Failand; Downhead Common,

Fl. Bristol.

C. DIVISA, Huds.

8. Burtle Moor (Herb. Flower, 1867); Shapwick Heath

(Miss Peck, 1906), Fl. Bristol.

9. Kewstoke (T. Perkins); personally vouched for by Dr. C. E. Moss as an 'occasional species' among the dunemarsh plants of our Channel shore, Fl. Bristol.

C. DISTICHA, Huds.

5. North Cheriton, W. Watson.

8. Abundant on peat moors to the south, Fl. Bristol. Par-

ticularly so about Shapwick and Ashcott!

- 9. Between Portbury and Portishead (D. Williams); Nailsea Moor; Kenn Moor; marshes under Stone Edge Batch, and on Tickenham Moor; Yatton Moor, in plenty; boggy pastures north-west of Churchill; meadows near Max Mill, Winscombe; Rodney Stoke; Wedmore; between Berrow and Brent Knoll; brackish marsh near Berrow (still there, three or four year ago!), Fl. Bristol.
- [10. Mr. White suggests that Blysmus compressus was mistaken for this at Hampton Rocks.]

C. DIANDRA, Schrank (teretiuscula, Good.).

8. Peat moor, Shapwick, 1885 (Broome and Inman in Herb. Broome); rediscovered in 1906 (Miss Peck), growing in one enclosure over perhaps an acre and a halfspecimens were named forma tenella, Beckm. by Kükenthal, Fl. Bristol. The stations in 9 and 10 have never been confirmed, and were almost certainly errors.

C. PANICULATA, L.

1. Between East Anstey and Brushford.

2. Near Crowcombe Heathfield.

3. Bathpool, W. Watson.

4. Chard Reservoir.

6. Wet copses, etc., between Castle Neroche and Buckland St. Marv.

- 9. Marsh under Stone Edge Batch, between Wraxall and Tickenham Hill; dune marsh near Berrow, now gone ?, Fl. Bristol.
- 10. Wanstrow, W. Watson.

Var. simplex, Peterm. (simplicior, And.).

8. Not uncommon on the peat moors!, Fl. Bristol. Hardly more than a form, as Mr. White points out.

C. VULPINA, L.

I have observed this in dis. 5; it may be absent from dis. 1. 9, 10, "The var. nemorosa Rebent. (C. nemorosa, Lumn.), with longer interrupted spikes and long bracts, is not rare. I regard it as little more than a luxuriant 'state.'" Fl. Bristol. Rebentisch described this as a species: Koch reduced it to a variety ("glumes whitish, except the green midrib, with a pale brown edge"), growing in shady woods; Ascherson & Graebner make it a shadeform.

C. DIVULSA, Stokes.

2. Porlock!, C. E. Salmon. Bossington. Washford.

3. West Monkton. Kingston. Cothelstone.

4. About Chard.

Noted as only "rather common" in Fl. Bristol, where detailed stations are given.

C. ECHINATA, Murray (stellulata, Good.).

1. Between East Anstey and Brushford. Winsford. King's Brompton.

Badgworthy Valley, W. Watson.
 Plentiful in bogs near Wiveliscombe and Milverton.

4. Staple Common. Near Chard Reservoir. 6. Between Castle Neroche and Blackwater.

9. Marshes below Wraxall towards Tickenham; Yatton; Walton and Clapton Moors; Blackdown and the Mineries, Fl. Bristol.

10. Near Portbury Church (Miss Lucas); Norton Malreward;

Publow; Barrow Gurney, Fl. Bristol.

C. REMOTA X VULPINA (C. axillaris, Good.).

3. Lane near Sidbrook, West Monkton. Roadside between Cothelstone and Kingston.

8. Bratton St. Maur, W. Watson.

9. Cheddar marshes (Mrs. Sandwith, 1911); marsh at Berrow

(C. Bucknall), Fl. Bristol.

I have no doubt about the parentage of this hybrid, which I have always found growing with these two species. C. contigua, Hoppe (muricata, auct., non L.) usually prefers drier ground.

C. LEPORINA, L. (ovalis, Good.).
1. Brushford. King's Brompton.

2. Porlock Weir.

3. Bog at the source of the Tone, H. S. Thompson.

4. Chard Reservoir.

8. South Brent, Fl. Bristol.

- 9. Wrington; Blagdon; near Christon and Loxton; between Worle and Hutton, Fl. Bristol.
- 10. Abbotsleigh, Fl. Bristol.
- C. ELATA, All. (C. Hudsonii, Ar. Bennett; C. stricta, Good., non Nuttall).

Native. Extremely rare. May, June.

9. About some water holes (spring heads) in a marsh under the high ground between Wraxall and Tickenham (C. Bucknall and J. W. White), Fl. Bristol.

C. GRACILIS, Curt. (acuta, auct., non L.).

10. Boggy ground on the Failand Hill House property, now drained (D. Williams); for twenty yards or so by the Avon near Keynsham Bridge (D. Fry, 1894); boundary ditch of the withy-bed above Saltford Station; by the Avon at intervals above Kelston Weir; Claverton Ferry. near Bath (A. E. Burr, 1888), Fl. Bristol.

C. GOODENOWII, Gay (vulgaris, Fr.).

Common about East Anstey and Brushford.
 Porlock Weir. Stogumber. Near Stoke Pero, W. Watson.
On all the spurs of Exmoor in all wet places, H. Slater.

3. Taunton, W. Watson.

4. Chard.

5. Between Otherv and Boroughbridge.

- 8. Bruton; rare, W. Watson. Burnham. Wedmore, Fl. Bristol.
- 9. Nailsea Moor; marshes under Wraxall and Tickenham Hills, etc.; Priddy Nine Barrows; Churchill, Fl. Bristol.
- 10. Pensford; Timsbury; Combe Hay (D. Fry), Fl. Bristol.

C. MONTANA, L.

9. Found in 1908 at another spot in the same neighbourhood as Mr. Linton's station (F. Samson), Fl. Bristol.

10. Sole's station in Collinson's Hist. Somerset (1791): "Rocks opposite Hotwells "has never been verified; but species with which it often grows occur not far off, and it may be right.

C. PILULIFERA, L.

2. Common in dry ground on the hills near Dunster.

8. Shapwick; Bruton, rare; Masbury, frequent, W. Watson.
The peat moors! (Mrs. Gregory), Fl. Bristol.

9. Slope of Blackdown, near Shipham, in plenty, Fl. Bristol.

10. Lord's Wood, Houndstreet (D. Fry); Failand (D. Williams), Fl. Bristol.

C. PALLESCENS, L.

1. Frequent about East Anstey and Brushford.

4. Staple Common. Moist meadow near Chard Reservoir.

S. Masbury; near Shepton Montague, W. Watson.

9. Limeridge Wood, Tickenham; woods, Axbridge (Herb.

Flower, 1850), Fl. Bristol.

10. Marshy spots about Lower Failand (D. Williams); near Pensford (L. W. Rogers); Chew Valley by Tucking Mills (D. Fry); Markbury (S. D. Fry), Fl. Bristol.

('. PANICEA, L.

1. In profusion near East Anstey and Brushford. King's Brompton. Winsford.

2. Crowcombe Heathfield. Stogumber.

3. Moors near Wiveliscombe and Milverton.

4. Chard. Staple Common.

5. Pitney.

6. Plentiful about Blackwater and Buckland St. Mary, and on Chard Common, etc.

Var. tumidula, Laestad.

1. Wet valley about halfway between Brushford and East Anstey; fruit large and swollen-just like Scottish examples passed by Kükenthal.

C. PENDULA, Huds.

2. Wood between Kilve Church and East Quantoxhead, 1847, Herb. Clark (H. S. Thompson). Swamp near the coast, Kilve. Between Combwich and Stoke Courcy.

West Monkton. 3. Durston. Thurlbear. Corfe. Scarce near Wiveliscombe. minster.

4. Staple Fitzpaine.

5. Stawell; High Ham, H. Slater. In profusion about Somerton, Charlton Mackrell, etc.

8. Milton Clevedon, etc. "The sedge of the woods around

Bruton " !, C. E. Moss.

9. Lanesides in the Cheddar Valley !, Fl. Bristol. Near the

Yeo Reservoir, C. E. Salmon.

10. Long Ashton; Bishopsworth, etc.; Lower Failand (Miss Agnes Fry); Stockwood; Whitchurch; Keynsham; Norton Malreward; Compton Dando; Paul Wood near Temple Cloud; Farrington Gurney; between Hinton Blewett and Coley; Ston Easton, etc., Fl. Bristol.

Perhaps absent from the light soils of Exmoor; but more general in the county, and in larger quantity, than I have seen

it anywhere else. Our finest British sedge.

C. STRIGOSA, Huds.

- By a stream near Cheddar (Mrs. Sandwith, 1911), Fl. Bristol.
- Lord's Wood, Houndstreet, and wood between Tucking Mill and Marksbury (D. Fry), Fl. Bristol.

C. DEPAUPERATA, Curt.

- Rediscovered near Axbridge in 1911 by Mr. H. W. Pugsley; extending thinly along a grassy bank at least 100 yards, Fl. Bristol.
- 10. One specimen in Leigh Woods (H. S. Thompson, 1886),

Fl. Bristol.

C. HELODES, Link (laevigata, Sm.).

Between East Anstey and Brushford.
 Between Dunster and Timberscombe.

3. Near Bathpool, W. Watson.

6. Between Castle Neroche and Buckland St. Mary.

8. Woods on the Greensand near Bruton; fairly common, C. E. Moss.

C. BINERVIS, Sm.

2. On the hills near Dunster. Crowcombe Heathfield.

4. Staple Common.

6. Between Castle Neroche and Blackwater.

8. Kingswood Warren, C. E. Moss.

 Ladye Bay, Clevedon (Herb. Flower, 1860); Max bogs, Winscombe (Miss Livett), Fl. Bristol.

C. DISTANS, L.

2. Muddy saltmarsh north-east of Minehead. Steart.

5. Wet meadows, Stawell, H. Slater.

 Highbridge; some large tufts in a coarse swampy pasture off the Shapwick Road, Fl. Bristol. Locally abundant on the peat south of Shapwick Station, 1913;

perhaps the same station.

 Salt-marsh behind the esplanade, Portishead; along the coast line from Portishead to Clevedon; marshy lowland below Wraxall and Tickenham Hills, and on Nailsea Moor; meadows and bog near Max, Winscombe; boggy pasture north-west of Churchill, to over three feet high, Fl. Bristol.

Failand (D. Williams); Kelston Round Hill (D. Fry);
 Fortnight and Combe Hay (Miss Roper), Fl. Bristol.

A tall, slender plant which I found in some plenty on the damp, sandy coast north of Berrow, 1906, was named by Kükenthal as the forma *sinaica*, Nees; the leaves and spikelets are unusually narrow.

Our inland form appears to be true *C. distans*, L.; the maritime form is *b. neglecta* (Degland) of the *London Catalogue*, ed. 10, but Ascherson & Graebner quote *C. neglecta*, Degl. as a synonym of the type. Mr. Arthur Bennett tells me that Mr. C. B. Clarke distinguished the coast-plant as *C. vikingensis*; he seems, however, to have died before describing it.

(". FULVA, Host (Hornschuchiana, Hoppe).

1. Common on moors between East Anstey and Brushford.
3. Abundant in bogs near Wiveliscombe, Bathealton, and

Milverton.

Staple Common.
 Between Castle Neroche and Blackwater.

8. The peat moors between Edington Road and Shapwick

Station!, Fl. Bristol.

- Between Clapton and Weston-in-Gordano; Blackdown, abundant near the summit, Fl. Bristol (at 1050 feet, J. W. White in litt.).
- C. FULVA × OEDERI, subsp. oedocarpa (C. fulva, Good., at least in part; C. flava, var. (?) sterilis, Syme).

1. Moors near East Anstey.

3. Clean Moor, between Wiveliscombe and Bathealton.

8. Shapwick Moor (C. Bucknall), Fl. Bristol.

Blackdown, Fl. Bristol (I have one of Mr. White's specimens).

By far the most abundant sedge-hybrid in Britain; I have observed it scores of times in Scotland, and in several English and Welsh countries—in fact, wherever the two parents grow together.

C. FLAVA, L. Common as an aggregate, including C. Oederi and its varieties; but the Linnean type is very rare in southern England, and I have not yet seen it from Somerset.

9. Peaty meadows near Max Mills, Winscombe, Fl. Bristol.

10. Bog under Lansdown (fide A. Bennett), Fl. Bristol.

C. LEPIDOCARPA, Tausch (C. flava, var. elatior, Schlechtendal?). Apparently rare, and only reported from the north of the county.

9. Peaty meadows near Max Mills, Winscombe, Fl. Bristol

(with a query).

10. Lower Failand (elatior, fide D. Fry); bog under Lansdown (elatior, fide A. Bennett), Fl. Bristol. Like true flava, this has the beak of the fruits abruptly reflexed; but they are smaller and less inflated, and the plant is more slender. The rachis, though described as scabrid, is not invariably so. Kükenthal keeps this up as a species; Ascherson & Graebner treat it as a 'race.'

C. OEDERI, Retz. (C. divisa, Oeder, non Huds.).

2. Near Weir Water, Oareford, C. E. Salmon. Damp hollow

at Crowcombe Heathfield, near the Station.

8. Swampy enclosures on Shapwick peat moor, fairly plentiful, Fl. Bristol; probably the 'flava, var. cyperoides, Marsson' of Fl. Som. I have not observed it there; but Mr. White mentions that it runs up to 15 inches in height, which points to the var. elatior, And. Marsson's cyperoides is another variety of C. Oederi, which may or may not be identical with C. chrysites Link (only a herbarium-name).

Subspecies oedocarpa, And. (C. lepidocarpa, Eng. Bot., t. 1773, non Tausch; C. flava, var. minor, Town-

This, by far our commonest and most widely distributed member of the flava-group, is in my opinion rightly placed under C. Oederi, though in many respects an intermediate. The beak is straight (not reflexed), but much longer than in the other forms of Oederi, and the fruit is usually a good deal larger; it varies greatly in size, from an inch or two up to nearly two feet. Once really known, however, it is quite unmistakable. I cannot agree with Ascherson & Graebner, who place it under C. lepidocarpa. The stations give no adequate notion of its abundance in Somerset.

1. Moors near East Anstey. Skilgate.

3. Bogs about Wiveliscombe, Milverton, and Bathealton.

4. Chard. Staple Common.

6. Between Castle Neroche and Buckland St. Mary.

8. Plentiful on Shapwick Moor. The Watchetts, near

Wells! (Miss Livett), Fl. Bristol.

 Moors at Clapton-, Weston-, and Walton-in-Gordano;
 Shipham Bottom, Blackdown, and the Mineries, Fl. Bristol.

10. Lower Failand; damp fields under Dundry Hill, Fl.

Bristol.

C. HIRTA, L. 'Carnation Grass,' given as a W. Somerset name for this in Fl. Som., applies rather to C. flacca (glauca), and perhaps also to C. panicea.

2. Crowcombe Heathfield. Stogumber. Washford.

4. Staple Common. Chard Reservoir.

8. Bruton, W. Watson. South Brent, Fl. Bristol.

 The lowlands about Nailsea, Kenn, Tickenham and Clevedon; Clapton Moor; Churchill; Lympsham, Fl. Bristol.

10. By rivulets below Dundry Hill, Fl. Bristol.

Var. spinosa, Mortensen. Female glumes long-awned. 2. Near Porlock Decoy.

Form C. hirtueformis, Pers.

- 10. A good deal in the meadows between Kelston Station and in the Avon (D. Fry); canal-side near Bathampton (Miss Peck), Fl. Bristol. This is a transient subglabrous state of wet ground.
- C. PSEUDO-CYPERUS, L.

Badgworthy Valley, W. Watson.
 ('reech St. Michael, W. Watson. Bathpool.

- 9. Tickenham and Weston Moors; Congresbury, Fl. Bristol.
- C. ACUTIFORMIS. Ehrh. (C. acuta, Herb. Linn.!; C. paludosa, Good.).

2. Minchead marshes.

3. Near Wembdon, Herb. Clark (H. S. Thompson). Staplegrove!, W. Watson, Lyng. Bathpool. Cheddon Fitzpaine. Thurlbear. Wiveliscombe.

4. Chard Reservoir.

5. Pitney. Othery. Boroughbridge.

8. About Wells! (Miss Livett), Fl. Bristol. Shapwick: near Castle Cary, W. Watson. Meare.

9. Between Wraxall and Tickenham; Churchill, Fl. Bristol. Loxton.

10. Long Ashton; Ham Green; Portbury and Upper Failand (D. Williams); by the Avon above Saltford; Hinton Blewett; Monkton Combe (D. Fry), Fl. Bristol.

Var. spadicea (Roth) (Kochiana, Gaud.).

S. Near Bruton, W. Watson.

- 9. Between Wraxall and Tickenham; Kenn Moor (fide A. Bennett), abundant; marsh ditches in the Cheddar Valley towards Nyeland, very fine and characteristic, Fl. Bristol.
- 10. Canal bank near Bath, Fl. Bristol.

# C. RIPARIA, Curt.

2. Kilve.

3. Durston, W. Watson. Lyng. Ruishton. Between Bathpool and Rowbarton. Combwich.

4. Chard Reservoir.

5. Boroughbridge to Othery. Weston Zoyland. Charlton Mackrell.

8. Bratton St. Maur, W. Watson. Burnham.

9. Chelvey; Nailsea; Yatton!; Brean, Fl. Bristol. Loxton.

10. Long Ashton; Saltford, etc., Fl. Bristol.

Var. humilis, Uechtritz.

- 9. Damp, sandy coast about a mile north of Berrow Church, 1909—one fair-sized patch; 12 to 20 inches high, with narrower, greener leaves than the type, and much smaller spikelets. Named by Herr Pfarrer Kükenthal.

- C. INFLATA, Huds. (rostrata, Stokes; ampullacea, Good.).
  2. Badgworthy Valley, W. Watson.
  9. Clevedon (E. Wheeler, 1881): "the locality no doubt was the peat of the Walton Valley, where I saw the plant in 1910," Fl. Bristol.
- [C. VESICARIA, L., found by Miss Roper in 1908 between Yate and Iron Acton, E. Gloucestershire, should be looked for in Somerset.7

### GRAMINEAE.

# PANICUM, L.

[P. SANGUINALE, L. (Digitaria sanguinalis, Scop.).

8. Casual in a Wells garden (Miss Livett, 1910), Fl. Bristol.

10. Old dust-heaps on the river bank below Bath (S. T. Dunn, 1896); "waste ground at Claverton, Bath, whence Miss Martin has sent me specimens and says it comes up year after year," Fl. Bristol.

P. CRUS-GALLI, L. (Echinochloa Crus-galli, Beauv.).

9. On sidings and mill-refuse in Portishead Station-yard,

1900-8, Fl. Bristol.

 By farm buildings near Portbury, 1902; casual at Twerton (S. T. Dunn, 1897); dust-heaps on the river bank below Bath, 1896-9; on rubbish at Claverton (Miss Martin, 1892), Fl. Bristol.

P. MILIACEUM, L.

9. By Portishead Dock, 1900 and 1903, Fl. Bristol.

10. Railway sidings, Fox's Wood, 1892; on refuse by the Avon near St. Anne's, Brislington, 1904, Fl. Bristol.]

# SETARIA, L.

[S. VIRIDIS, Beauv.

9. Portishead Station-yard, 1903-8; waste ground, Clevedon (Miss Livett); roadside heap, Clapton (Miss Roper, 1899), Fl. Bristol.

- Bank of Avon, Rownham, 1881; railway near Paulton, 1881; embankment of Ashton Avenue, 1906; dustheaps, etc., Bath, frequent (S. T. Dunn), Fl. Bristol.
- S. GLAUCA, Beauv.

9. Station-yard, Portishead, 1904-8, Fl. Bristol.

- Persistent for some years at Bathampton Station (Miss Peck); Bath (A. E. Burr, 1897), Fl. Bristol.]
- [Phalahis minor, Relz., P. cylindracea, DC., and P. paradoxa, L. have occurred casually at Portishead Station-yard, Fl. Bristol.]

# ALOPECURUS, L.

A. MYOSUROIDES, Huds. (agrestis, L.).

3. Near Bathpool.

Langport, W. Watson.
 Bruton, W. Watson.

9. Worle Hill, Fl. Bristol (many stations in 10).

A. BULBOSUS, Gouan.

- Pastures by the Channel between Avonmouth and Portishead, Fl. Bristol.
- Abundant in a salt-marsh by the Avon, below Pill, Fl. Bristol.

# MILIUM, L.

M. EFFUSUM, L.

1. Exe Valley, below Exton.

 Stoke St. Mary. Clavelshay, North Petherton. Wiveliscombe.

5. Aller.

 Limeridge Wood, Tickenham; Wrington; Compton Martin, Fl. Bristol.

 Portbury, towards Failand; Maes Knoll; Featherbed Lane, near Clutton, and wood between there and Stowey (D. Fry); Compton Dando, Fl. Bristol.

# PHLEUM, L.

P. PRATENSE, L., var. nodosum (L.).

3. West Monkton.

- 9. Uphill!; Brean Down!; the Mendips, etc., Fl. Bristol.
- 10. Combe Down; Maes Knoll, etc., Fl. Bristol.
- P. ARENARIUM, L.
  - 2. Steart.

[P. MICHELII, All. 9. Sparingly in Portishead Station-yard, 1906-7 (Miss Livett), Fl. Bristol.]

# AGROSTIS, L.

A. SETACEA, Curt.

1. Abundant on Haddon Hill, above Skilgate.

- "All over Exmoor and its spurs," H. Slater. Crowcombe Heathfield.
- 6. Roadside bank near Chard Common, towards Winsham.

A. CANINA, L.

1. Common in the district.

2. Dunster.

3. Near Wiveliscombe.

4. Staple Common. Chard.

8. Wells, with var. mutica, Doell (Miss Livett), Fl. Bristol.

9. Crook's Peak (C. Bucknall), Fl. Bristol.

10. Between Brislington and Keynsham; between Stanton Drew and Knowl Hill (D. Fry); Downside Common, Edford, Fl. Bristol.

# A. ALBA, L.

Var. stolonifera (L.).

9. Sea sands, Brean, Fl. Bristol.

Var. major, Gaud.

- 3. Pitminster, W. Watson, sp.
- A. TENUIS, Sibth. (vulgaris, With.). The dwarf state called A. pumila, L., caused by a fungus, has been noted in the following additional stations:—

3. Cothelstone Hill.

9. Mendip Hills (Herb. Flower); Crook's Peak and Black-down (Mrs. Gregory); Brean Down, Fl. Bristol.

A. NIGRA, With.

Native. Very rare, unless confused with the previous species. July.

2. Roadsides near Watchet, H. S. Thompson.

3. Bridgwater, H. S. Thompson.

[Polypogon monspeliensis, Desf. 10. Casual at Twerton-on-Avon (S. T. Dunn, 1897), Fl. Bristol. Mr. White says "perhaps not truly indigenous anywhere in this country"; but I have seen it certainly so in W. Kent, W. Sussex, and Dorset.]

# CALAMAGROSTIS, Adans.

C. EPIGEIOS, Roth.

2. Locally plentiful on the Lias near St. Audries and Kilve.

3. Near Trull, W. Watson. On the Lias above Badger Street.

4. On the Lias, Staple Fitzpaine.

8. Not reported from the peat moor since Clark's time until 1913, when Mr. White and I found it independently; I saw it south of the line, about half-way between Shapwick and Ashcott Stations, and more sparingly on the north side, towards the latter. On the Lias, Puriton.
9. Cadbury Camp (C. Bucknall); between Winscombe and

Banwell, in several spots; Sandford Woods, and near the Loxton end of Bleadon Hill! (H. S. Thompson);

Callow Hill, Fl. Bristol.

10. Farrington Gurney (D. Fry); near Bathampton (Miss Peck), Fl. Bristol.

## GASTRIDIUM, Beauv.

G. LENDIGERUM, Gaud. (australe, Beauv.).
2. Minehead, W. Watson. The station near Wells seemed to me quite a natural one.

[APERA SPICA-VENTI, Beauv. has occurred as a casual near Keynsham (D. Fry), in Portishead Station-yard, and at Bath; and A. interrupta, Beauv. on Portishead sidings, Fl. Bristol.]

# AIRA, L.

A. CARYOPHYLLEA, L., though called 'very common' in Fl. Som., is 'rather rare' in the Bristol area.

A. PRAECOX, L.

2. Minehead. Stogumber. Crowcombe.

3. Beacon Top, near West Monkton.

4. Castle Neroche.

8. Droves on the peat moor, Shapwick, etc. !, C. E. Moss.

9. Brean Down!; Blackdown, Fl. Bristol.

10. Failand (Miss Agnes Fry); near Knowl Hill and at Stanton Drew (D. Fry), Fl. Bristol.

# HOLCUS, L.

H. MOLLIS, L.

- 1. East Anstey to Brushford.
- 2. Crowcombe Heathfield.

3. West Monkton.

4. Castle Neroche and its vicinity.

10. Rownham Hill (C. Bucknall); near the Abbot's Pond; Failand Hill (Miss Agnes Fry); between Farrington Gurney and Litton (D. Fry), Fl. Bristol.

# AVENA, L.

A. PUBESCENS, Huds.

8. Bruton, W. Watson.

- 9. Worle Hill; slopes of Mendip, in many spots!, Fl. Bristol.
- 10. Leigh Down; Failand Hill; Whitchurch; Ursleigh Hill; Stanton Drew and Featherbed Lane (D. Fry); Cranmore (Miss Livett); Combe Hay, Fl. Bristol.

A. PRATENSIS, L.

8. Bruton, W. Watson.

9. Worle Hill, Fl. Bristol. Uphill.

10. Failand (Miss Agnes Fry); Queen Charlton; Saltford; Claverton Down (D. Fry); Monkton Farley Down and Conkwell (A. E. Burr), Fl. Bristol.

A. FATUA, L.

2. Dunster; Alcombe, H. W. Pugsley.

3. West Monkton.

 Fields full of it, 1887, between Clevedon and Walton-in-Gordano, Fl. Bristol.

 Portbury; Ursleigh Hill, and between Publow and Queen Charlton; Knowl Hill, Norton Hautville, and Clutton (D. Fry); North Stoke; Englishcombe, Fl. Bristol.

# ARRHENATHERUM, Beauv.

A. ELATIUS, Mert. & Koch (avenaceum, Beauv.).

Var. nodosum, Koch (A. bulbosum, Presl.).

8. Bruton, W. Watson.

 With us, in arable land it is at least as common as the type." Fl. Bristol.

[CYNODON DACTYLON, Pers. has occurred sparingly as a casual on waste ground at Bath, S. T. Dunn in Journ. Bot., 1896.]

# SIEGLINGIA, Bernh.

S. DECUMBENS, Bernh. (Triodia decumbens, Beauv.).

4. Near Chard.

6. Between Castle Neroche and Blackwater.

9. Worle Hill; Blackdown, Fl. Bristol.

 Failand Hill; Abbotsleigh; Pensford; Lansdown (J. G. Baker), Fl. Bristol.

# PHRAGMITES, Adans.

P. COMMUNIS, Trin., var. nigricans, Gren. & Godr. 9. Swamp near Worle Station, 1907.

[Cynosurus echinatus, L. Casual at Portishead Station-yard, 1907, and near Twerton, 1897 (S. T. Dunn), Fl. Bristol.]

# KOELERIA, Pers.

K. VALLESIANA, Asch. & Graebn. (valesiaca, Gaud.).

Native. Very rare, and confined in Britain to limestone rocks near Weston-super-Mare. June, July. Found in 1726 by

Dillenius; rediscovered by Mr. G. C. Druce, 1904.

9. Uphill!, G. C. Druce, sp. Brean Down!; Worle Hill; Crook's Peak (C. Bucknall), Fl. Bristol. Plentiful in all these stations, and rather variable; a beautiful grass.

K. GRACILIS, Pers.

Native and locally frequent on dry calcareous pastures in N. Somerset; the type has not yet been recorded elsewhere. June, July.

8. Hills near Wells, Fl. Bristol.

 Plentiful about Clevedon; Wavering Down (C. Bucknall); Worlebury Hill; Uphill!; Brean Down!, Fl. Bristol.

Leigh Down; Upper Knowle; Queen Charlton; Providence Place, Long Ashton; Hampton Down (Miss Peck); Claverton Down, Bath, Fl. Bristol.

Subsp. K. britannica, Domin (the common plant, hither-to known as K. cristata, Pers.).

8. Bruton; rare, W. Watson.

 Plentiful on Mendip; Worle Hill (C. Bucknall), Fl. Bristol. Uphill.

10. Grassy roadsides on the Failand plateau, Fl. Bristol.

# MOLINIA, Schrank.

M. COERULEA, Moench (varia, Schrank).

- 2. Crowcombe Heathfield. Hills near Dunster.
- 3. Moors near Wiveliscombe and Milverton.

4. Between Chard and Chaffcombe.

6. Abundant on and near Chard Common.

8. Kingsettle Hill, W. Watson.

 Weston-in-Gordano; Lox Yeo valley near Winscombe; between Burnham and Berrow (C. Wall); Blackdown, Fl. Bristol.

10. Abbotsleigh; Failand (D. Williams); Cranmore, Fl.

Bristol.

# -CATABROSA, Beauv.

C. AQUATICA, Beauv.

2. Washford.

3. Bathpool; Norton Fitzwarren, W. Watson.

 Yatton; Max, below Winscombe; near Portbury; rhine under Brean Down! (Mrs. Gregory), Fl. Bristol.

 Failand Hill and Markham Bottom; Widecombe near East Harptree (Herb. Lawrence), Fl. Bristol.

# MELICA, L.

M. UNIFLORA, Retz.

1. Between East Anstey and Brushford.

2. Luxborough, etc., H. Slater. Porlock Weir. Culbone.

3. West Monkton.

4. Staple Fitzpaine.

8. Bruton, W. Watson.

9. Brockley Combe; Rhodyate Hill; Banwell; Cheddar Wood!; Sidcot; Shipham, Fl. Bristol. Yatton, W. Watson.

 Failand; Barrow Gurney; Mells; Great Elm, Fl. Bristol.

### POA, L.

[P. BULBOSA, L. has lately been found wild near Barry, Glamorgan; but the two alleged N. Somerset stations are still unconfirmed.]

P. NEMORALIS, L.

Porlock Weir. Lane-banks between Crowcombe Heathfield and Stogumber.

3. Cothelstone. Walls near Hestercombe and Volis Cross,

between Cheddon and Broomfield.

8. Bruton; rare, W. Watson.

9. Edge of Limeridge Wood, Tickenham, Fl. Bristol. Walls at Worle. Draycott.

P. COMPRESSA, L.

3. Walls at Taunton and Monkton Heathfield.

5. Charlton Mackrell.

9. Portishead; Draycott!; Rodney Stoke!, Fl. Bristol.

10, Ashton Gate; Failand; Weston near Bath (D. Fry), Fl. Bristol.

Var. polynoda (Parn.).

8. Bruton, W. Walson.

P. PRATENSIS, L., var. subcoerulea (Sm.).

2. Frequent on the coast near Porlock, Minchead, etc.

- 9, 10. "A well marked variety. It is quite common on rocky ground; the loose, soil-covered walls of our colliery districts; and in dry sandy turf (!) along the Channel shore." Fl. Bristol.
- P. TRIVIALIS, L., var. glabra, Doell (P. Koeleri, DC.).
  - 3. West Monkton.
  - 9. Cheddar. Uphill.

### GLYCERIA, Br.

G. FLUITANS, Br., var. triticea, Fr.

5. Ditch near Weston Zoyland, 1907.

9. Markham Bottom; Itchington Moor, Fl. Bristol.

A rather slight variety, but with a peculiar distichous inflor-escence; frequent in Scotland, apparently scarce in the south of England.

G. FLUITANS X PLICATA (G. pedicellata, Towns. Mr. Townsend told me that he had always believed this to be a hybrid, but described it as a species, in deference to Prof. Babington's opinion. It usually grows with the parents).

2. Ditches near Stolford.

3. Coombe, West Monkton. Bathpool.

8. Burnham, Fl. Bristol.

9. Uphill.

10. Near Lock's Mills; Pensford, Saltford, and Newton Park (D. Fry); Keynsham; canal near Bathampton and Combe Hay, Fl. Bristol.

G. PLICATA, Fr.

1. Between East Anstey and Brushford.

2. Dunster. Washford. Williton. Stolford.

3. Between Cothelstone and Kingston. West Monkton. Thurlbear, Trull.

4. Chard.

Langport, W. Watson. Chedzoy.
 Bruton, W. Watson. Godney (Miss Livett), Fl. Bristol.

9. Mill pool, Cheddar!; near Rowberrow, Fl. Bristol. Uphill.

- 10. Failand Hill; Stanton Drew; about Chew Magna and Winford; Corston (D. Fry); Newton St. Loe; river and canal between Bath and Bathampton, Fl. Bristol.
- G. DECLINATA, Bribisson (G. plicata, var. depauperata, Crépin). Native. Muddy places, ditch-borders, etc.; local. June to August.

1. Between East Anstey and Brushford. Exe Valley at

Bridgetown.

2. Near Greenaleigh, Minehead. Dunster. Washford. Crowcombe Heathfield. Steart.

3. West Monkton. Hestercombe. Near Wiveliscombe.

6. East of Chard.

Remarkable for its dwarf, prostrate habit, very glaucous foliage, smooth sheaths, short, purplish anthers, and obtusely threetoothed glumes. I have studied it for many years, and consider it a distinct species. The Minehead plant, excepting some increase in size, has kept quite constant in a kitchen garden border.

# G. AQUATICA, Wahlb.

2. Stolford.

3. Bathpool. Northmoor.

- Langport, W. Watson. Dunball.
   Highbridge!, Fl. Bristol. Shapwick, W. Watson. Abundant near Ashcott Station.
- 9. Marshes west of Honey Hall and Brinsea; Wick St. Lawrence : Tickenham : Brent Knoll !, etc., Fl. Bristol. Worle. Berrow.

10. Bedminster Meads (Swete, Fl.); canal, Bathampton!, Fl. Bristol.

- G. MARITIMA, Mert. & Koch.
  - 2. Porlock.
  - 9. Uphill.
- G. DISTANS, Wahlb.
  - 2. Stolford.
  - 3. Combwich.
  - 9. Uphill.

G. PROCUMBENS, Dumort.

9. Clevedon (S. T. Dunn), Fl. Bristol.

### FESTUCA, L.

- F. ROTTBOELLIOIDES. Kunth (Poa loliacea, Huds.).
  - 2. Stolford.
  - 9. I have seen it at Berrow.

F. Myeros, L.

3. Suplegrove, W. Walson. Walls at Quantock Farm, Monkton Heathfield and Bathpool, all in West Monkton parish. Durston. Cothelstone.

4. Bower Hinton.

9. Waste ground by Portishead Station, 1902, Fl. Bristol. 10. Ashton Gate; Stockwood (Herb. Stephens); Redhill. 1906 (C. Bucknall), Fl. Bristol.

F. BROMOIDES, L. (sciuroides, Roth).
2. Dodington, H. Corder. Minehead. Porlock Weir.

3. West Monkton. Cheddon Fitzpaine. Kingston.

S. Drove near Shapwick Station.

- 9. Portishead; Worle Hill; Sandford Hill; Brean Down!, Fl. Bristol.
- 10. Failand (D. Williams); between Brislington and Keynsham; Hampton Down, Fl. Bristol.

#### F. OVINA. L.

Var. capillata, Hackel (F. tenuifolia, Sibth.).

4. Staple Common. Probably frequent on the lighter soils.

Var. caesia (Sm.).

- 9. "Leaves rigid, setaceous; whole plant more or less glaucous. A submaritime form, noted on the coast between Portishead and Clevedon! Miss Livett, and on Brean Down! C. Bucknall." Fl. Bristol.
- F. RUBRA, L. To the type of this (a. vulgaris, Hackel) must be transferred the 'F. fallax' of Fl. Som.; it is common in dis. 3, and doubtless in all the divisions.

Var. arenaria, Fr. (F. arenaria, Osbeck; F. oraria, Dumort.).

9. Rocks at Anchor Head, Weston - super - Mare (Mrs. Gregory); Kewstoke Bay; sandhills and loose sand on the shore below Brean Down; "an abundant grass in the open dune plant-associations on the North Somerset coast " (Dr. C. E. Moss), Fl. Bristol.

Var. pruinosa, Hackel.

- 2. Frequent on the cliffs between Minehead and Hurlstone Point.
- 9. Coast rocks near St. Thomas' Head, Fl. Bristol. Scarce near Berrow.

# F. PRATENSIS, Huds.

4. Near Chard Reservoir.

S. East Brent; Burnham, Fl. Bristol. Bruton, W. Watson. Highbridge. 9. Damp pastures near Uphill Station.

- Barrow Gurney; Corston; Compton Dando; Stowey; Bishop Sutton, Fl. Bristol.
- F. PRATENSIS X LOLIUM PERENNE (F. loliacea, Curt.).

9. Portishead, Fl. Bristol.

10. Brislington; Avonside meadows between Saltford and Twerton (D. Fru), Fl. Bristol.

F. ELATIOR, L.

- 3. Taunton; Pitminster, W. Watson. Bathpool. Near Wiveliscombe.
- 4. Chard Reservoir.

5. Weston Zovland.

S. Bruton; Shapwick, W. Watson. Huntspill.

9. Cheddar!, Fl. Bristol. Berrow.

10. Between Pensford and Stanton Drew, Fl. Bristol.

Subsp. F. arundinacea, Schreb.

2. I believe that I have seen the true plant on the coast at Blue Anchor, between St. Audries and Kilve, and near Stolford.

# BROMUS, L.

B. GIGANTEUS, L. (Festuca gigantea, Vill.).

1. Bury. Between Brushford and East Anstey. 2. Langridge, H. Slater. Bossington. St. Audries.

3. Taunton, W. Watson. West Monkton.

5. Chedzov.

8. Bruton; Shapwick, W. Watson.

10. Ashton Park; near Abbotsleigh; Failand (D. Williams); Stockwood; Pensford; Farrington Gurney, Hinton Blewett, Litton, Norton Malreward, Stanton Drew, and Featherbed Lane (D. Fry), Fl. Bristol.

> Var. triflorus, Syme. Probably frequent, but overlooked.

2. St. Audries.

3. West Monkton. Milverton.

B. RAMOSUS, Huds. (asper, Murray).
2. Bossington. Dunster. St. Audries. Stogumber.
3. Pitminster, W. Watson. Bishop's Lydeard.

Langport, W. Watson.
 Bruton; Shapwick, W. Watson. Milton Clevedon.

9, 10. Rather common and generally distributed, Fl. Bristol.

B. ERECTUS, Huds. Not yet noted in the three south-western districts.

8. Bruton; rare, W. Watson.

- 9. Tickenham; hill pastures on Mendip in many directions. Fl. Bristol.
- 10. Easton-in-Gordano; Upper Failand; Upper Knowle; Stockwood; Whitchurch; Queen Charlton and Publow (D. Fry); Stanton Wick; Chew Magna; Great Elm; Combe Hay; Claverton Down; Lansdown, etc., Fl. Bristol.

Var. villosus, Bab.

- 9. Easton (Miss M. Mayow), Fl. Bristol. 10. Combe Hay (T. Dutton), Syme, E. B.
- B. Madritensis, L. 9. Waste ground by Portishead Station, 1902 and 1910, Fl. Bristol.
- IB. TECTORUM, L.

9. Portishead Station-yard, 1904-7, Fl. Bristol.

- 10. Old quarried ground near Twerton, 1903 (Miss Martin), Fl. Bristol.
- B. UNIOLOIDES, Humboldt, Bonpland & Kunth. 9. Portishead Station-yard; plentiful since 1900, Fl. Bristol. 10. Casual at Twerton, 1897 (S. T. Dunn), Fl. Bristol.]
- B. SECALINUS, L.

5. Waste ground, Bridgwater, H. S. Thompson. 9. Portishead Station-yard, 1904-7, Fl. Bristol.

10. Ashton Avenue, 1906; Failand (D. Williams), Fl. Bristol.

B. RACEMOSUS, L.

3. Meadows near the Tone, below Ruishton.

8. Shapwick.

- 9. Nailsea Moor; Puxton; Lympsham; East Brent, Fl.
- 10. Upper Failand; meadows by Tucking Mills near Burnet, Fl. Bristol.
- B. COMMUTATUS, Schrader.

2. Meadows below Dunster and at Stolford.

4. Damp pastures near Chard Reservoir.

8. Between Wells and Glastonbury. Huntspill. Meare. 10. Chewton Keynsham (D. Fry); between Burnet and Compton Dando; lane below Ursleigh Hill; meadows between Chew Magna and Dundry, and at Kelston, Fl. Bristol.

Besides the difference in the shape of the glumes, this can usually be distinguished at a glance from B. racemosus by their rich red-brown colour.

B. HORDEACEUS, L. (mollis, L.).

Var. leptostachys, Pers. (glabratus, Doell; both described under B. mollis, as was var. glabrescens, Coss. & Germ.).

2. Minehead.

9. Wrington; Congresbury, Fl. Bristol.

10. Abbotsleigh; Brislington; Stanton Drew, Fl. Bristol.

B. INTERRUPTUS, Druce.

Colonist. Cultivated ground; very rare. May, June.

9. Abundant in a field of sown fodder on the Tyntesfield estate near Wraxall, June, 1913, J. W. White in litt.

[B. PATULUS, Mert. & Koch.

9. Casual at Portishead Dock, 1907-9, Fl. Bristol.]

B. ARVENSIS, L.

10. Rough pasture on the Leigh Court estate, 1905 (none seen there, the summer following); clover-field, Bath, 1860 (Herb. Flower); casual at Twerton, 1897 (S. T. Dunn), Fl. Bristol.

#### BRACHYPODIUM, Beauv.

B. PINNATUM, Beauv.

9. Cadbury Camp (C. Bucknall); south side of Wavering Down, above Cross, in plenty, Fl. Bristol.

10. Lansdown encampment (J. G. Baker); Bathampton (Fl. Bathon. Suppl.), Fl. Bristol.

# LOLIUM, L.

[L. MULTIFLORUM, Lam.

9. Neglected cultivation at Weston-in-Gordano, Fl. Bristol.

10. Roadside near Portbury Station, 1907; by farm buildings under Duncorn Hill, 1910, Fl. Bristol.]

L. TEMULENTUM, L.

9. Portishead Station-yard, 1906 (Miss Livett), Fl. Bristol.

Stanton Drew, 1887 (D. Fry); Twerton, 1897 (S. T. Dunn), Fl. Bristol.

### AGROPYRON, J. Gaertn.

A. CANINUM, Beauv.

8. Near Bruton; only in one station, W. Watson.

9. Nyland Batch, plentiful (C. Wall); Shuteshelve; wood-

side, Axbridge, Fl. Bristol.

Near Providence, above Long Ashton; Failand (D. Williams); near Clutton (D. Fry); abundant on the left bank of the Avon above Saltford; Conkwell; wood border above Hampton Rocks (Miss Peck), Fl. Bristol.

A. REPENS, Beauv., var. Leersianum, Gray. Probably common 8. Wells, Fl. Bristol. About Highbridge and Huntspill.

9. Banwell; Uphill, Fl. Bristol.

8, 9. "A maritime form with attenuate subulate glumes and shortly awned pales, from the Burnham and Berrow sandhills, may be the var. Vaillantianum, Schrank." Fl. Bristol.

A. PUNGENS, Roemer & Schultes.

2, 8, 9. On the open coast southward to Burnham and Steart, Fl. Bristol.

3. Banks of the Parret, below Combwich! (var. littorale),

C. E. Salmon, 1907.

- "The T. (Triticum) pungens of this district is mainly, if not entirely, referable to two forms—the normal plant with its var. pycnanthum Gren. & Godr., which have obtuse or sub-obtuse glumes and palea; and an awned variety, aristatum Warren = T. littorale Host. Both these occur in plenty." Fl. Bristol.
- A. JUNCEUM × REPENS (A. acutum, auct. angl.; Triticum laxum, Fr.).

S. Burnham, Fl. Bristol.

9. Berrow, Fl. Bristol.

10. Rownham Ferry (Miss Atwood in Swete, Fl.), Fl. Bristol.

# LEPTURUS, Br.

L. FILIFORMIS, Trin.

3. Banks of the Parret, near Steart and Combwich.

 Sands west (? south) of Weston-super-Mare; bank of rhine under Brean Down, Fl. Bristol.

### NARDUS, L.

N. STRICTA, L.

1. Brushford.

2. Will's Neck, H. S. Thompson.

4. Staple Common.

8. Shapwick, W. Watson.

# HORDEUM, L.

H. NODOSUM, L. (pratense, Huds.).

- 2. Plentiful near the coast, Minehead, and from Stolford to Steart.
- 3. Frequent about Taunton, W. Watson. Combwich.

5. Chedzov. Weston Zoyland.

8. Bruton; very rare, W. Watson.
9. Chelvey; Clevedon; between Portbury and Portishead;
Brent Knoll!; Berrow!, Fl. Bristol. Uphill.
10. Publow; Bishop Sutton, Fl. Bristol.

H. MURINUM, L.

"I should consider this common; it certainly is so at (3) Taunton and (5) Langport, though very rare at (8) Bruton," W. Watson. Mr. White speaks of it as more common than formerly, but still rare near Bath.

H. MARINUM, Huds. (maritimum, With.).

2. Plentiful near Stolford.

- 3. Abundant near the tidal Parret, between Steart and Combwich.
- 9. Portbury Wharf, 1905; salt-marsh, Uphill!, Fl. Bristol.

### ELYMUS, L.

E. ARENARIUS, L.

9. In sand between Weston Esplanade and Brean Down, 1898 (Miss Mules in Murray's MS.), Fl. Bristol. Mr. W. Watson had a specimen brought to him from this district in 1906.

#### FILICES.

# BLECHNUM, L.

B. SPICANT, With.

- 1. Abundant about East Anstey, Brushford, and elsewhere.
- 2. Culbone. "All over the Exmoor hills," H. Slater. Holford, H. S. Thompson.
- 3. Near Holford, H. S. Thompson. West Monkton.

4. Staple Common, and below Castle Neroche.

6. Blackwater.

9. Goblin Combe; lower slopes of Blackdown, Fl. Bristol.

 Bourton Combe; about Failand; Stoke Lane valley (Miss Livett); Hallatrow; Leigh-on-Mendip (D. Fry); Cranmore and Beacon Hill, Fl. Bristol.

### ASPLENIUM, L.

- [A LANCEOLATUM, Huds. is assigned to the following record by Prof. G. S. Boulger in Journ. Bot., 1900, p. 337 ('Some Manuscript Notes by Plukenet'):—" Page 113.—Filix marina Anglica Park. Dwarf Sea Fern, '& at Weston-super-Mare in Somersetshire L. P.'" But A. marinum was doubtless intended.]
- A. Adiantum-nigrum, L. grows in dis. 6; I have seen it near Chard and Buckland St. Mary.

A. MARINUM, Huds.

Scarce and small on the coast beyond Greenaleigh, near Minehead.

A. GERMANICUM, Weiss.

Native. Rocks and walls; very rare, perhaps extinct.

2. Oare. Culbone. Specimens from both places are in the Kew Herbarium (C. E. Salmon in Journ. Bot., 1903, p. 168); the only dated one was collected at Oare in 1840 by N. B. Ward. Syme mentions this as a Somerset plant in the third edition of English Botany, and Mr. Murray told me that he believed it to be A. Ruta-muraria × septentrionale; so its omission from Fl. Som. was probably accidental.

# CETERACH, Willd.

C. OFFICINARUM, Willd.

Scarce, I think, in the south-west of the county, though abundant on the Mountain Limestone of the northern districts.

Var. crenatum, Milde.

10. Chewton Mendip (R. V. Sherring), Fl. Bristol.

# PHYLLITIS, Hill.

P. Scolopendrium, Newm. (Scolopendrium vulgare, Symons).

Among the thirteen 'varieties' found in the Bristol area, Mr. White gives the following Somerset stations for the two which he thinks the most striking:—var. crispum, near Hallatrow (R. V. Sherring) and East Harptree; and var. marginatum, near Pensford (Col. A. M. Jones), above Shipham, and Doulting (R. V. Sherring).

# CYSTOPTERIS, Bernh.

#### C. FRAGILIS, Bernh.

8. Croscombe, Fl. Bristol.

- Burrington Combe; walls near the Mineries!; Charlcombe Bay, Weston-in-Gordano (Miss Livett), Fl. Bristol.
- Wall near Failand, formerly (D. Williams); Bourton Combe; Stanton Prior (Rev. S. Browne); Bishop Sutton (D. Fry); Eaker Hill, Litton, and Gurney Slade (R. V. Sherring); Whatley and Mells (Rev. S. Laing), Fl. Bristol.

Var. dentata, Hooker.

9. Cheddar Gorge!, Fl. Bristol.

# POLYSTICHUM, Roth.

#### P. ACULEATUM, Roth.

3. Trull, etc., W. Watson.

8. Ham Woods near Croscombe (Miss Livett), Fl. Bristol.
Common at Cole Crib, near Bruton; Shapwick to Ash-

cott, W. Watson.

10. St. Anne's Wood, Brislington (T. B. Flower); Failand, rare (D. Williams); between Pensford and Publow; Chew Stoke, Bishop Sutton, and between Fry's Bottom and Chelwood (D. Fry); Camerton; Hallatrow; Eaker Hill Wood, Chewton Mendip (R. V. Sherring); North Widcombe; Leigh-on-Mendip, Fl. Bristol.

Var. lobatum (Presl).

3. Hestercombe, W. Watson.

9. Clevedon (W. E. Green); Flax Bourton (Dr. Thwaites);

upper end of Cheddar Gorge, Fl. Bristol.

 Leigh Wood and Dundry Down (Dr. Thwaites); Stanton Drew and Bishop Sutton (D. Fry); Hallatrow (R. V. Sherring); in several places near Bath (T. B. Flower), Fl. Bristol.

P. Braunii (Aspidium Braunii, Spenner).

10. First recorded as a British plant in Journ. Bot., 1907, p. 451; Dr. Kümmerle of Buda-Pest having determined as a small form of this species a specimen collected by the Rev. W. H. Painter in Leigh Woods, 1881, distributed as Aspidium angulare, and now in the National Herbarium. A description translated from Garcke's Flora von Deutschland, ed. 17, p. 719 (1895) is appended:—"Frond lanceolate, shortly acuminate, at

base gradually attenuate, membranaceous, somewhat flaceid, bipinnate; pinnæ at base somewhat unequal and dilated on the upper or on both sides, above longly or shortly pointed or often obtuse, the lowest pinnæ far shorter than the rest; pinnules tolerably large, almost sessile, decurrent, at base entire and truncate on the upper side, above obtuse, the lowest upper pinnule a little larger than the rest; sorus moderately large, very convex, indusium very small, almost membranaceous."

Nyman gives A. angulare, Kit. apud Willd. (1810; non Smith) as an earlier name for A. Braunii, Spenn. (1825). Rouy, Fl. de France, XIV, p. 419, places it as a subspecies under A. aculeatum, Sw.; giving as its geographical range Europe, Caucasian region, E. Asia, N. America, and the Hawaiian islands. In Lowe's British Ferns a var. Braunii, Moore is described and figured under Polysticham angulare as not British, but found in France.

# P. ANGULARE, Presl.

2. Stogumber.

3. Common about West Monkton and Broomfield. Corfe.

8. Common at Bruton; Ashcott, W. Watson.

Bourton Combe; Maes Knoll; between Norton Hautville and Dundry; between Pensford and Woollard; Stanton Wick, Bishop Sutton, and between Fry's Bottom and Chelwood (D. Fry); Hallatrow, and towards Hinton Blewett and Litton; Great Elm, Fl. Bristol.

# LASTREA, Presl.

L. THELYPTERIS, Bory.

- Marsh between Wraxall and Tickenham (A. E. G. Way, 1907), Fl. Bristol.
- L. MONTANA, T. Moore (Oreopteris, Presl).

1. Near Winsford.

2. Croydon Hill near Dunster.

4. Staple Common.

- 9. Near Burrington, Fl. Bristol.
- L. FILIX-MAS, Presl, var. paleacea, T. Moore.

2. Near Minehead. Porlock Weir.

5. Aller.

6. Near Chard.

 Eaker Hill Wood, Chewton Mendip (Miss Roper), Fl. Bristol. L. SPINULOSA, Presl.

1 Between East Anstey and Brushford. 8. Bruton, W. Watson, sp.

- 10. Lord's Wood, Houndstreet; Litton Wood (R. V. Sherring). Fl. Bristol.
- L. ARISTATA, Rendle & Britten (dilatata, Presl), var. tanacetifolia.

  10. Wood in Ashton Park, 1905 (named by the Rev. A. Ley), Fl. Bristol.

### POLYPODIUM, L.

P. VULGARE, L. The following varieties are given in Fl. Bristol.

Var. bifidum, auct.

8. Pylle, by Shepton Mallet, Miss Roper.

10. Nightingale Valley, Leigh Woods, W. E. Green. near Stowey, R. V. Sherring. Wood

Var. serratum, Willd.

9. Cheddar, H. C. Watson in Phytol. I, p. 964. Norton's

Wood by Clevedon, W. E. Green.

10. Between Bath and Wells, Herb. Dillenius. On old trees in Leigh Wood, L. H. Grindon. Ashton Manor Woods, Miss Atwood in Swete, Fl.

Var. semilacerum. auct.

9. Cheddar Cliffs, Moore's Hist. Brit. Ferns.

Var. cambricum, Willd.

10. Near Dundry Church, Swete, Fl.

# PHEGOPTERIS, Presl.

P. ROBERTIANA, Braun (calcarea, Fée).

9. Established on a wall at Congresbury Station (Miss Roper), Fl. Bristol.

## OPHIOGLOSSUM, L.

O. VULGATUM, L.

2. Blue Anchor; Watchet, H. Slater.

3. Enmore, Miss A. Miller. Hill-pastures above Corfe.

5. Plentiful from Stawell to Shapwick in all suitable places, H. Slater.

8. Bruton, W. Watson. On the peat by Shapwick Road !, Fl. Bristol.

9. (Sevedon (W. E. Green); in the wood far up in Cheddar Gorge; frequent in pastures on the Mendips, Fl. Bristol.

10. Ashton Hill (Miss Ruddock); slopes of Stantonbury; between Farrington Gurney and Hinton Blewett; Cameley (F. Samson); Whatley (Rev. S. Laing), Fl Bristol.

# BOTRYCHIUM, Sw.

B. LUNARIA, Sw.

4. Roadside near Castle Neroche, W. B. Butler.

8. Gerard's station at 'Carey' (Castle Cary) may be in dis. 5. Pasture, Bratton St. Maur, W. Watson. Near Shapwick Station (Mrs. Gregory); drove near Ashcott Station (H. Corder), Fl. Bristol.

10. Failand (D. Williams); Prior Park, Bath (Herb. Jenyns.

1856), Fl. Bristol.

# EQUISETACEAE.

# EQUISETUM, L.

E. MAXIMUM, Lam.

2. Williton.

3. Above Pitminster and Corfe. Badger Street.

4. Staple Fitzpaine and Castle Neroche. Ilminster. Chaffcombe.

6. Buckland St. Mary.

8. Milton Clevedon.

9. North of Churchill; Max, near Winscombe; Barrow Gurney; between Worle and Woodspring, Fl. Bristol.

10. By the railway between Whitchurch and Pensford; Crox Bottom, Gurney Slade; Englishcombe; between Midford and Hinton Charterhouse, Fl. Bristol.

E. ARVENSE × LIMOSUM (E. litorale, Kühlewein).

1. In a shallow, rocky pool or backwater of the Barle, half a mile above Dulverton Station, May, 1905. Only known elsewhere in Britain from Surrey and Perthshire.

E. SYLVATICUM, L.

- 4. In several spots on and near Staple Common.
- 8. Bruton; rare, W. Watson.

#### E. PALUSTRE, L.

- 1. Between East Anstey and Brushford.
- 3. Wiveliscombe.
- 4. Staple Common.
- 8. Cole, W. Watson.
- 9. By the Land Yeo at Ashton Watering; Nailsea; between Weston-super-Mare and Hutton, Fl. Bristol.

Var. polystachyum, Weigel.

- 9. Weston-super-Mare (Moore's Hist. of British Ferns), Fl. Bristol.
- 10. Reservoir above Portbury (Miss Roper); swamps by the Chew between Stanton Drew and Pensford; Marshfield Lane near Bath (T. B. Flower in Newman's List. 1843), Fl. Bristol.

Var. nudum, Newm.

9. Golf links, Weston-super-Mare (Mrs. Gregory); sands at Brean (Moore's Hist. of British Ferns); by the Lox Yeo near Loxton, Fl. Bristol.

In September, 1907, I saw a peculiar plant on the muddy western shore of Chard Reservoir, often sending up numerous stems from the creeping rootstock, with few or many slender patent or ascending branches, which in some specimens were very long, and had the unbranched terminal part 5 to 10 inches in length. It grew with E. arvense and E. palustre, and looked like a hybrid; but specimens sent to both Exchange Clubs were considered to be only a palustre-form.

### E. LIMOSUM, L.

- 1. In the Barle, above Dulverton Station.
- 2. Damp fields by the stream from Langridge to Luxborough, H. Slater.
- 4. Chard Reservoir.
- Langport, W. Watson. Near Boroughbridge.
   Bruton, W. Watson. Near Wedmore, Fl. Bristol.
- 9. Marshes below Portbury; Nailsea; Tickenham, Fl. Bristol.
- 10. Near Keynsham (C. Bucknall); Houndstreet Lake (D. Fru); streamside, Gurney Slade, Fl. Bristol.

Var. fluviatile (L.).

- 8. Bruton, W. Watson.
- 9. Tickenham Moor (Miss Livett), Fl. Bristol.
- 10. Near Keynsham (C. Bucknall); Houndstreet Lake (D. Fry), Fl. Bristol.

### E. HYEMALE, L.

Native. In a sandy swamp; very rare.

- Weston-super-Mare!; discovered in 1899 by Mr. H. Corder, of Bridgwater. The station in dis. 10 has not been confirmed.
- E. VARIEGATUM, Schleich.

Native. In moist sandy ground; very rare.

8. Damp dune hollows north of Burnham; rare (Dr. C. E.

Moss, 1904), Fl. Bristol.

 Weston-super-Mare!, with the previous species, H. Corder, 1899. This is an unusual form, not prostrate like the usual British arenarium, but erect and fairly strong; thus tending towards var. majus, Syme.

### LYCOPODIACEAE.

# LYCOPODIUM, L.

- L. Selago, L.
  2. Will's Neck, 1863, Herb. Clark (H. S. Thompson).
- L. CLAVATUM, L.

2. Rodhuish Hill, H. Slater.

 Blackdown on Mendip (Miss Gregory, 1896, and up to 1911); apparently in at least four places, Fl. Bristol.

L. ALPINUM, L.

 Summit of Dunkery, 1832, Herb. Clark (H. S. Thompson); confirming Coleman's record.

### CHARACEAE.

### CHARA, L.

C. FRAGILIS, Desv.

- Near Durston, W. Watson. Abundant in ditches on Northmoor, between Maunsel and Athelney. Small pond at West Monkton Rectory; not seen for some years.
- 4. Isle Abbots, G. R. Bullock-Webster.
- Shapwick, G. R. Bullock-Webster.
   Nailsea Moor; Kenn Moor, Fl. Bristol.

Var. Hedwigii, Kuetz.

4. Isle Abbots, G. R. Bullock-Webster.

Var. capillacea, Coss. & Germ.

- 8. Pits on the peat between Ashcott and Shapwick Stations, Fl. Bristol.
- 9. Ditches on Walton Moor, Fl. Bristol.

C. ASPERA, Willd.

Canal near Bridgwater ("probably this"), H. S. Thompson.

C. POLYACANTHA, Braun.

Native. Pools and ditches; very rare, and only in N. Somerset.

 Pond near the railway by Nailsea Station (A. Leipner and E. H. Read, 1880); peat ditches on Walton Moor, Fl. Bristol.

C. CONTRARIA, Kuetz.

Native in one N. Somerset station; extremely rare.

 Stagnant water in a portion of the abandoned coal canal near Dunkerton, 1910 (C. Bucknall and J. W. White), Fl. Bristol.

C. HISPIDA, L.

 Near Othery, G. R. Bullock-Webster. Near Middlezoy, W. Watson. Weston Zoyland.

Rather plentiful in ditches below Weston-in-Gordano;
 Kenn Moor; between Yatton and Clevedon; Portbury (W. E. Green), Fl. Bristol.

C. VULGARIS, L.

2. Stream in a field between Watchet and Blue Anchor (named by Messrs. Groves), C. E. Salmon.

3. Ditches on West Sedgemoor, between North Curry and Fivehead.

4. Isle Abbots, G. R. Bullock-Webster.

5. Weston Zoyland.

 Yatton; Portbury; Weston-in-Gordano; quarry pool, Hartcliff Rocks (Miss Roper); Berrow!, Fl. Bristol.

 Pond between Bedminster and Whitchurch; ponds under Dundry Hill, Fl. Bristol.

Var. longibracteata, Kuetz.

8. Peat ditches on the moors near Edington and Ashcott, Fl. Bristol.

Var. papillata, Wallr.

5. Clay-pits near Bridgwater, G. R. Bullock-Webster.

8. Peat ditch near Shapwick Station, Fl. Bristol.

 Abundant in peat ditches of the Walton Valley (named by Messrs Groves); Tiekenham Moor, Fl. Bristol.

10. Ponds in Prior Park, Bath, Fl. Bristol.

# TOLYPELLA, Leonh.

T. CLOMERATA, Leonh.

Native. Pools and ditches; very rare.

 In small quantity in a ditch near Othery; clay-pit near Bridgwater, 1899, G. R. Bullock-Webster.

T. INTRICATA, Leonh.

Native. In stagnant water; only once found.

5. Small pond on the north side of Pitney Wood, March and April, 1905; named by Messrs. Groves from fresh material.

### NITELLA, Agardh.

N. OPACA, Agardh.

3. Small field-pond on Quantock Farm, West Monkton.