

NOTES ON THE FLORA OF FAIR ISLE

By N. M. PRITCHARD
(Botany Department, University of Oxford)

During August 1956 I spent a week on Fair Isle. No record of the plants of the Island has appeared since that of Trail in 1906, and it seems worth while putting on record some of the observations made there last year.

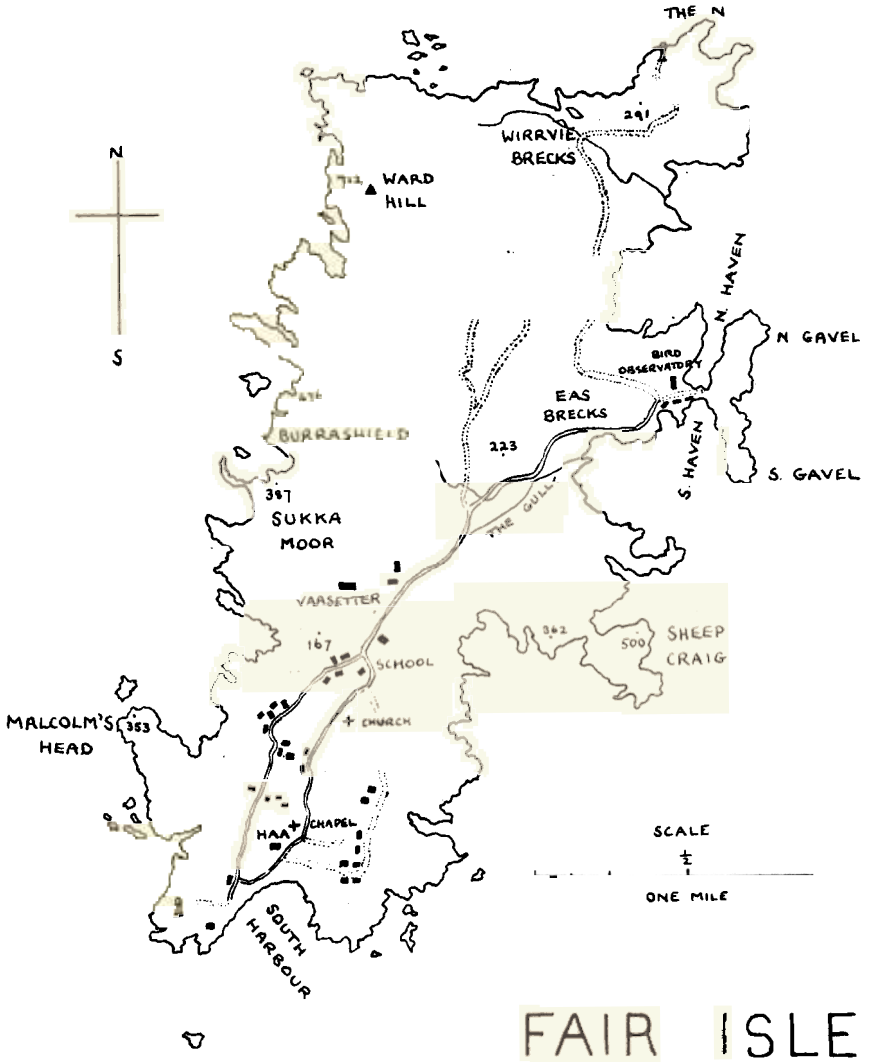
Fair Isle lies midway between Sumburgh Head on the mainland of Shetland and the Island of North Ronaldshay in Orkney. It forms part of Vice-County 112, Zetland, and its relationships are with that group of islands rather than with Orkney. The island is about 3 miles long and from 1 to 1½ miles wide. Except in the extreme south, the coastline is formed almost entirely by high cliffs, in some places rising as high as 600 feet. Ward Hill (712 feet), the highest part of the island, lies in the north west, and it is balanced in the south east by Sheep Craig, about 500 feet high. The whole island is composed of Old Red Sandstone, which appears more closely related to that of Shetland than to the Orkney rocks. This suggests an absence of basic soils of any sort, and while no soil samples were taken the plant lists confirm this. The range of habitats is extremely limited, a small number of plants being abundant more or less throughout the island. This limitation is reflected in the list.

A summary of the different habitats follows.

(1) The northern two-thirds of the island is completely covered by a fairly dry, thin peat, with a few streams and one or two more or less barren tarns. Over this area the vegetation consists almost entirely of a mixture of *Calluna vulgaris*, *Erica cinerea*, *Empetrum nigrum* and *Juniperus communis* subsp. *nana*. The Juniper is far more abundant on Fair Isle than on the mainland of Shetland. Among these are patches of *Agrostis* spp., *Scirpus cespitosus*, *Festuca* spp. and various *Carex* spp. The streams, as elsewhere on the island, contain *Hydrocotyle vulgaris*, *Ranunculus flammula*, *Potamogeton natans* and *P. polygonifolius*.

(2) The south-western part of this area is rather wetter, and the vegetation consists mainly of *Juncus articulatus*, *J. acutiflorus*, *Schoenus nigricans* and *Molinia caerulea*.

(3) At intervals round the high cliffs are more or less sheltered ravines running down to the sea, the richest of which is that known as the Gully. In these ravines are found many of the grasses and ferns, and such relatively rare species as *Primula vulgaris* and *Hypericum pulchrum*.



(4) The tops of the cliffs themselves are largely eroded by wind, but as on Sheep Craig, Malcolm's Head and the North and South Gavels they form the greater part of the sheep-grazing on the island. Here there is a close turf of *Festuca* spp., *Carex flacca*, *Luzula multiflora*, *Armeria maritima* and *Plantago maritima*.

(5) The cliff faces are largely occupied by the nests of fulmars, but on ledges occur *Armeria*, *Plantago maritima*, *P. coronopus*, *Sedum rosea* and *Ligusticum scoticum*.

(6) There is a little coarse sand and shingle in the South Harbour and in North and South Havens, but this bears little except a few plants of *Atriplex* spp., *Potentilla anserina* and *Galium aparine*.

(7) In the southern third of the island the peaty ground is replaced by rocky turf, consisting chiefly of *Festuca ovina*, *Armeria* and *Plantago maritima*, with such plants as *Leontodon autumnalis* (also common elsewhere), *Euphrasia confusa*, *Gentiana campestris* and *Jasione montana*.

(8) In the southern part also, in the village, is all the arable land found on the island. Here there are a considerable number of weeds, of which the commonest are *Myosotis arvensis*, *Lycopsis arvensis*, *Spergula arvensis*, *Agropyron repens* and *Polygonum aviculare* agg.

In the list of vascular plants which follows, those recorded by Trail (1906) are marked with a + sign. When the + sign is placed in parentheses, this indicates that Trail recorded an aggregate which now includes the species, e.g. he recorded *Carex flava* but not *C. demissa*. Where no indication of habitat is given, I did not see the plant myself. These indications are not intended to be exclusive, but they give an idea of frequency and also show where the plants seem most typically to occur. The plants collected may be seen in the Druce Herbarium in Oxford.

I should like to record my thanks to my wife for assisting in the collection of specimens and for drawing the map.

My thanks are also due to Mr. Kenneth Williamson, Director of the Fair Isle Bird Observatory, for his hospitality and encouragement.

LIST OF VASCULAR PLANTS

LYCOPodium SELAGO L.	+	
SELAGINELLA SELAGINOIDES (L.)		
Link		Frequent in damp grassland
ISOETES LACUSTRIS L.		In ponds near Ward Hill
EQUISETUM PALUSTRE L.	+	Streams near Bird Observatory
E. ARVENSE L.	+	
PTERIDIUM AQUILINUM (L.) Kuhn	+	Drier patches, N. of Island

BLECHNUM SPICANT (L.) Roth	+ Rocks in the Gully
ASPLENium MARINUM L.	+ Ledges in cave, N. Haven
ATHYRIUM FILIX-FEMINA (L.) Roth	+
DRYOPTERIS DILATATA (Höf fm.) A. Gray	+ Rocks in the Gully
JUNIPERUS COMMUNIS subsp. NANA (Willd.) Syme	+ Abundant in N. of Island
CALThA PALUSTRIS L.	+ Frequent in streams
RANUNCULUS ACRIS L.	+ Streamside in the Gully
R. REPENS L.	Old garden, Vaasetter
R. FLAMMULA L.	+ Frequent in wet places
R. HEDERACEUS L.	+ Stream in the village
CApSELLA BURSA-PASTORIS (L.) Medic.	+ Waste ground in the village
COCHLEARIA OFFICINALIS L.	+ Sea cliffs, N. Haven
C. SCOTICA Druce	+
C. DANICA L.	+ Sea cliffs, N. Haven
CARDAMINE PRATENSIS L.	+ Fields in the village
VIOLA RIVINIANA Rchb.	+
V. CANINA L.	Grassland in N. of Island
V. PALUSTRIS L.	+ Frequent in N. of Island
POLYGALA SERPYLLIFOLIA Hose	+ Damp grass above the Gully
HYPERICUM PULCHRUM L.	+ Rock cleft below Wirrorvie Brecks
SILENE MARITIMA With.	+ Frequent on sea cliffs
MELANDRIUM DIOICUM (L.) Coss. & Germ.	+ Sea cliffs, Burrashield
LYCHNIS FLOS-CUCULI L.	+ Frequent in wet places
CERASTIUM HOLOSTEODES Fr.	+ Common in waste places and on cliffs.
C. ATROVIRENS Bab.	+ In the Gully
STELLARIA MEDIA (L.) Vill.	+ Frequent near buildings
SAGINA MARITIMA Sm.	Sea cliffs, N. Haven
S. PROCUMBENS L.	+ By the Observatory
HONCKENYA PEPLIOIDES (L.) Ehrh.	Sand in S. Haven
SPERGULA ARVENSIS L.	+ Common in arable land
MONTIA FONTANA subsp. FONTANA	(+) By the Observatory
ATRIPLEX PATULA L.	Shingle in S. Harbour
A. HASTATA L.	Shingle in N. Haven
A. GLABRIUSCULA var. BABINGTONII (Woods) Druce	+
TRIFOLIUM PRATENSE L.	Arable land. ? Escape
T. REPENS L.	+ Frequent in arable land and throughout the Island
ANTHYLLIS VULNERARIA L.	+ Roadsides in the village
LOTUS CORNICULATUS L.	+ Frequent in grassland
VICIA CRACCA L.	+ Frequent in arable ground
FILIPENDULA ULMARIA (L.) Maxim.	+

- POTENTILLA ANSERINA L. + Frequent near buildings and on shingle
- P. ERECTA (L.) Räusch. + Common throughout Island
- SEDUM ROSEA (L.) Scop. + Cliffs, Malcolm's Head
- EPILOBIUM OBSCURUM Schreb. + [Not rec. for v.cc. 111 or 112]
- E. PALUSTRE L. + Frequent in damp places
- MYRIOPHYLLUM ALTERNIFLORUM DC. + Stream near Observatory
+ Frequent in streams
- CALLITRICHE STAGNALIS Scop. + Stream on Wirrvie Brecks
- C. INTERMEDIA G. F. Hoffm. + Common in wet places
- HYDROCOTYLE VULGARIS L. + Occasional on sea cliffs
- LIGUSTICUM SCOTICUM L. Waste ground near school
- HERACLEUM SPHONDYLUM L. + Frequent on sea cliffs
- ANGELICA SYLVESTRIS L. +
- EUPHORBIA HELIOSCOPIA L. +
- POLYGONUM AVICULARE L. agg. + In fields, on shingle, &c.
- P. AMPHIBIUM L. + Wet patch near the school
- RUMEX ACETOSELLA L. + Common in arable land
- R. ACETOSA L. + By stream in the Gully
- R. LONGIFOLIUS DC. +
- R. CRISPUS L. + On sea cliffs, N. Haven
- URTICA DIOICA L. + Occasional near buildings
- BETULA PUBESCENS Ehrh. Planted in the Gully
- SALIX ATROCINEREA Brot. Sea cliffs below the Gully
- S. REPENS L. + Near the school
- S. HERBACEA L. +
- CALLUNA VULGARIS (L.) Hull + Abundant throughout Island
- ERICA CINEREA L. + Abundant in N. of Island
- EMPETRUM NIGRUM L. + Abundant in N. of Island
- ARMERIA MARITIMA (Mill.) Willd. + Abundant on sea cliffs
- PRIMULA VULGARIS Huds. Streamside below Wirrvie Brecks
- ANAGALLIS TENELLA (L.) L. Streamside, Eas Brecks
- GENTIANELLA CAMPESTRIS (L.) Börner + Near the Methodist Chapel
- LYCOPSIS ARVENSIS L. + Frequent in arable land
- MYOSOTIS SCORPIOIDES L. Streams in village
- M. CAESPITOSA K. F. Schultz + Frequent in streams
- M. ARVENSIS (L.) Hill + Common in arable land
- PEDICULARIS PALUSTRIS L. + Common on Sukka Moor
- P. SYLVATICA L. +
- RHINANTHUS STENOPHYLLUS (Schur) Druce (+) Roadsides in the village
- EUPHRASIA CONFUSA Pugs. (det. E. F. Warburg) Sea cliffs, N. Haven
- E. SCOTICA Wettst. +
- E. FOULAENSIS Towns. ex Wettst. +
- E. BOREALIS Wettst. +
- PINGUICULA VULGARIS L. + Occasional by streams

- MENTHA AQUATICA* L. + Wet patch near the school
THYMUS DRUCEI Ronn. (+) Common throughout Island
PRUNELLA VULGARIS L. + Common throughout Island
LAMIUM MOLUCCCELLIFOLIUM Fr. Occasional in arable land
L. PURPUREUM L. + Frequent in arable land
GALEOPSIS BIFIDA Boenn. (+) Frequent in arable land
PLANTAGO MAJOR L. + Occasional in village
P. LANCEOLATA L. + Frequent in grassland
P. MARITIMA L. + Common throughout Island
P. CORONOPUS L. + Frequent on sea cliffs
JASIONE MONTANA L. + Frequent in rocky places
GALIUM SAXATILE L. + Common in N. of Island
G. PALUSTRE L. + Streamside above the Gully
G. APARINE L. + Shingle in S. Harbour
SUCCISA PRATENSIS Moench + Common in S. of Island
SENECIO JACOBAEA L. +
S. AQUATICUS Hill + Common in S. of Island
S. VULGARIS L. + Occasional in arable land
GNAPHALIUM ULIGINOSUM L. +
ANTENNARIA DIOICA (L.) Gaertn. +
BELLIS PERENNIS L. + Frequent in rocky places
ACHILLEA MILLEFOLIUM L. + Common in the village
A. PTARMICA L. +
MATRICARIA MARITIMA L. subsp. MARITIMA + Common in arable land
M. MARITIMA L. subsp. INODORA + (A plant approximating to this
(L.) Clapham subspecies but having pale
yellow ray florets was found
in arable land in the village.
No record of such a form
appears in the literature, and
further material would be
valuable)
M. MATRICARIOIDES (Less.) Porter Frequent in arable land
TANACETUM VULGARE L. +
ARTEMISIA VULGARIS L. +
CIRSIUM ARVENSE (L.) Scop. Occasional near buildings
C. VULGARE (Savi) Ten. + Occasional throughout Island
HYPOCHOERIS RADICATA L. Roadsides in village
LEONTODON AUTUMNALIS L. + Common in grassy places
SONCHUS ARVENSIS L. + Garden near the Haa
S. OLERACEUS L. + Occasional in arable land
S. ASPER (L.) Hill +
TRIGLOCHIN PALUSTRIS L. Occasional on Sukka Moor
POTAMOGETON NATANS L. Stream on Wirrvie Brecks
P. POLYGONIFOLIUS Pourr. + Stream on Wirrvie Brecks
NARTHECIUM OSSIFRAGUM (L.) Huds. + Wirrvie Brecks

SCILLA VERNA Huds.	+ Scattered on sea cliffs and rocks
JUNCUS SQUARROSUS L.	Common in N. of Island
J. GERARDII Lois.	Pools on N. Gavel
J. BUFONIS L.	+ Occasional in the Gully
J. CONGLOMERATUS L.	Two plants above the Gully
J. ACUTIFLORUS Hoffm.	Frequent in wet places
J. ARTICULATUS L.	+ Common in wet places
J. BULBOSUS L.	+ Common in wet places & streams
J. KOCHII F. W. Schultz	Occasional in the Gully
LUZULA SYLVATICA (Huds.) Gaudin	+ Ward Hill and in the Gully
L. CAMPESTRIS (L.) DC.	+
L. MULTIFLORA (Retz.) Lejeune	Frequent in grassy places
IRIS PSEUDACORUS L.	Streams in the village
COELOGLOSSUM VIRIDE (L.) Hartm.	+
ORCHIS ERICETORUM	
(E. S. Marshall) E. F. Linton.	Grassy places, S. of Island
O. INCARNATA L.	+
SPARGANIUM ERECTUM subsp.	
ERECTUM	+
ERIOPHORUM ANGUSTIFOLIUM	
Honck.	+ Occasional in N. of Island
SCIRPUS CESPITOSUS L.	Frequent around Ward Hill
S. FLUTANS L.	Frequent in N. of Island
ELEOCHARIS PALUSTRIS (L.) R. Br.	Streams on Sukka Moor
SCHOENUS NIGRICANS L.	Frequent on Sukka Moor
CAREX BINERVIS Sm.	+ Frequent in N. of Island
C. DEMISSA Hornem.	(+) Frequent by streamsides
C. SEROTINA Mérat	+
C. PANICEA L.	+ Occasional in bogs
C. FLACCA Schreb.	+ Occasional in grassland
C. NIGRA (L.) Reichard	+ Occasional in N. of Island
C. BIGELOWII Schwein.	+
C. ECHINATA Muir.	+ Frequent in N. of Island
C. PULICARIS L.	Frequent on Sukka Moor
MOLINIA CAERULEA (L.) Moench	+ Common on Sukka Moor
SIEGLINGIA DECUMBENS (L.) Bernh.	Frequent in damp places
GLYCERIA FLUTANS (L.) R. Br.	+ Ditches in the village
FESTUCA RUBRA L.	+ Occasional in S. of Island
F. OVINA L.	+ ?Occasional in grassland
F. VIVIPARA (L.) Sm.	+ Frequent in N. of Island
LOLIUM PERENNE L.	+ Frequent in arable land
POA ANNUA L.	+ Frequent round buildings
P. PRATENSIS L.	Occasional in arable land
P. TRIVIALIS L.	Frequent round buildings
DACTYLIS GLOMERATA L.	Occasional in arable land
CYNOSURUS CRISTATUS L.	In grassland in the village
AGROPYRON REPENS (L.) Beauv.	+ Frequent in arable land
HOLCUS LANATUS L.	+

H. MOLLIS L.	In the Gully
DESCHAMPSIA CESPITOSA (L.) Beauv. +	By the Observatory
D. FLEXUOSA (L.) Trin.	Occasional in the Gully
AIRA PRAECOX L.	+ Grassland above the Gully
AGROSTIS TENUIS Sibth.	Common in N. of Island
A. STOLONIFERA L.	Frequent on rocks and in village
ALOPECURUS GENICULATUS L.	Waste ground in village
ANTHOXANTHUM ODORATUM L.	Frequent throughout Island
PHALARIS ARUNDINACEA L.	+ Streams in the village
NARDUS STRICTA L.	Common in N. of Island

REFERENCES

- CLARKE, W. EAGLE, 1906, The Birds of Fair Isle, Native and Migratory, *Ann. Scot. Nat. Hist.*, **57**, 4-21.
- DRUCE, G. C., 1921, Flora Zetlandica, *Rep. Bot. Soc. & E.C.*, **6**, 457-546.
- TRAIL, J. W. H., 1906, The Flora of Fair Isle, *Ann. Scot. Nat. Hist.*, **57**, 165-170.