XVI BOG ('MOOR') EXCURSION

OF THE SYSTEMATISCH-GEOBOTANISCHES INSTITUT,

DER UNIVERSITÄT BERN

Isle of Skye, Scotland

August 16 - August 23 1992

Excursion Guide

Systematisch-Geobotanisches Institut der Universität Bern

XVI BOG EXCURSION (MOOR-EXKURSION) TO

THE ISLE OF SKYE, SCOTLAND

August 1992

Excursion Guide

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1992

CONTENTS

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EXCURSIONS

(Order is dependent on the weather !)

1. Broadford - Loch Ashik - Loch Airigh na Saorach - Lochain Dubha - Broadford. (Map 2)

Topics to be discussed: Loch Ashik Holocene and late-glacial pollen stratigraphy and vegetational history; *Pinus sylvestris* history on Skye and in western Scotland; blanket-bog and fen flora and vegetation; freshwater loch (lake) flora and vegetation.

2. Broadford - Loch Meodal - Coill a' Ghasgain - Tokavaig - Gillean Burn - Loch nan Dubhrachan - Broadford. (Map 3)

Topics to be discussed: Loch Meodal Holocene and late-glacial pollen stratigraphy and vegetational history; Holocene vegetational history of Skye and history of *Quercus* on Skye and in western Scotland; present-day woodlands and Southern Atlantic ferns and bryophytes; loch flora and vegetation; blanket bog and fen flora and vegetation.

3. Broadford - Ben Suardal - Loch Cill Chriosd - Coille Gaireallach - Torrin - Broadford. (Map 2)

Topics to be discussed: limestone flora and vegetation; blanket-bog and fen flora and vegetation; Loch Cill Chriosd late-glacial pollen stratigraphy and vegetational history; present-day woodlands.

4. Broadford - Blà Bheinn (928m) - Broadford. (Map 2)

Topics to be discussed: blanket-bog and fen flora and vegetation; mountain flora and vegetation; Devensian late-glacial Loch Lomond Stadial glaciation ('Younger Dryas').

5. Broadford - Sligachan - Allt Daraich - Loch nan Eilean - Glen Varragill - Broadford. (Map 4)

Topics to be discussed: Devensian late-glacial glaciation, deglaciation, landforms, pollen stratigraphy, and floristic and vegetational history of Skye; freshwater loch flora and vegetation; present-day woodlands; blanket-bog and fen flora and vegetation.

6. Broadford - Loch Fada - The Storr (719m) - Broadford. (Map 5)

Topics to be discussed: Loch Fada Holocene and ?late-glacial pollen stratigraphy and vegetational history; The Storr landforms and glaciation of the Trotternish ridge; mountain flora and vegetation.

7. Broadford - Portree - Kilt Rock - Loch Cleat, Duntulm - The Quiraing - Broadford. (Map 6)

Topics to be discussed: Loch Cleat Holocene pollen stratigraphy and vegetational history; meadow vegetation; glaciation and landforms of the Trotternish ridge; present-day woodlands.

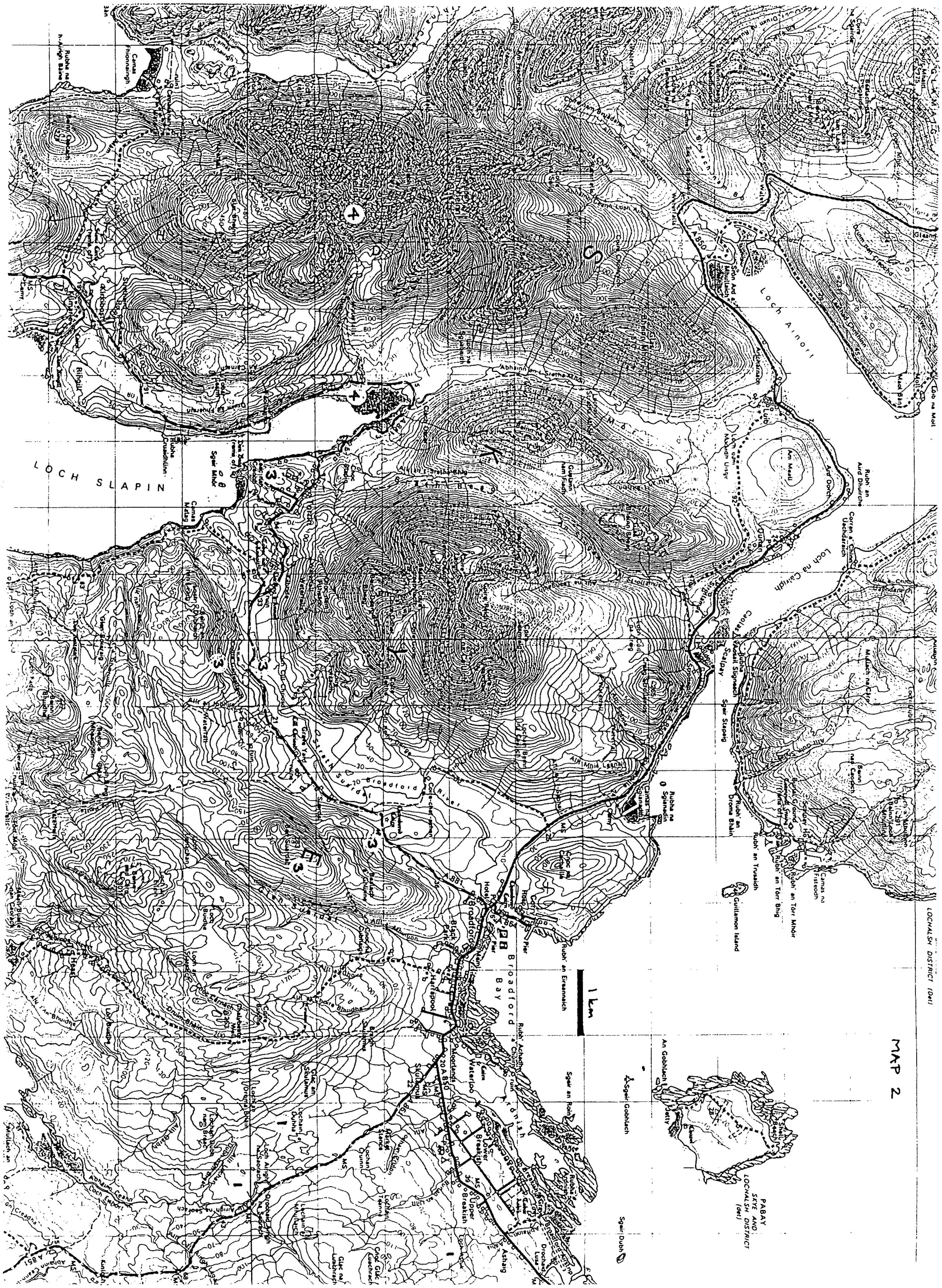
8. Broadford - Loch Ainort - Loch Sligachan - Loch Caroy - Waterstein - Neist Point - Loch Eishort - Ramasaig Cliff - Broadford. (Map 7)

Topics to be discussed: coastal vegetation; present-day woodlands; mountain flora and vegetation.

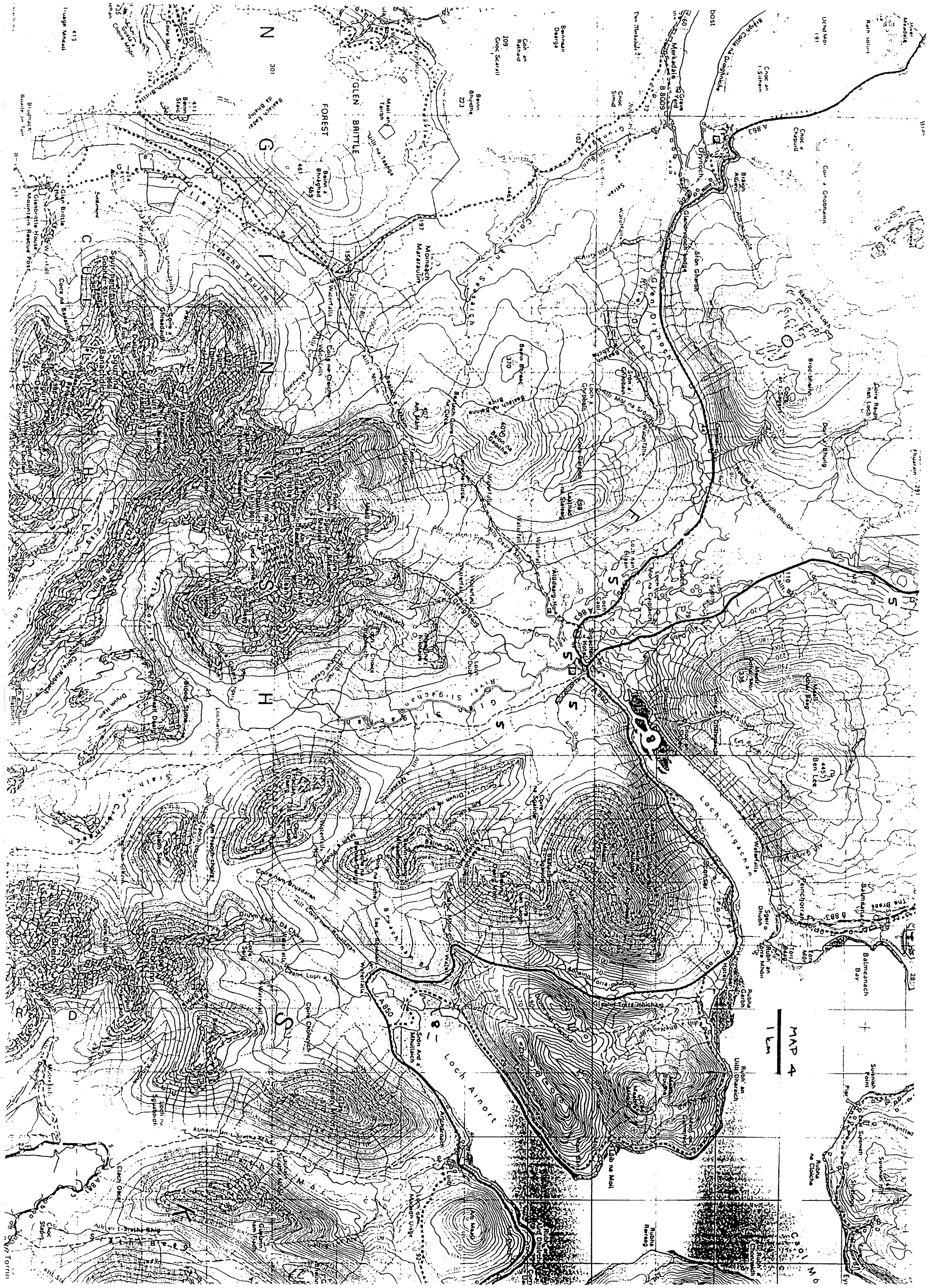
MAPS

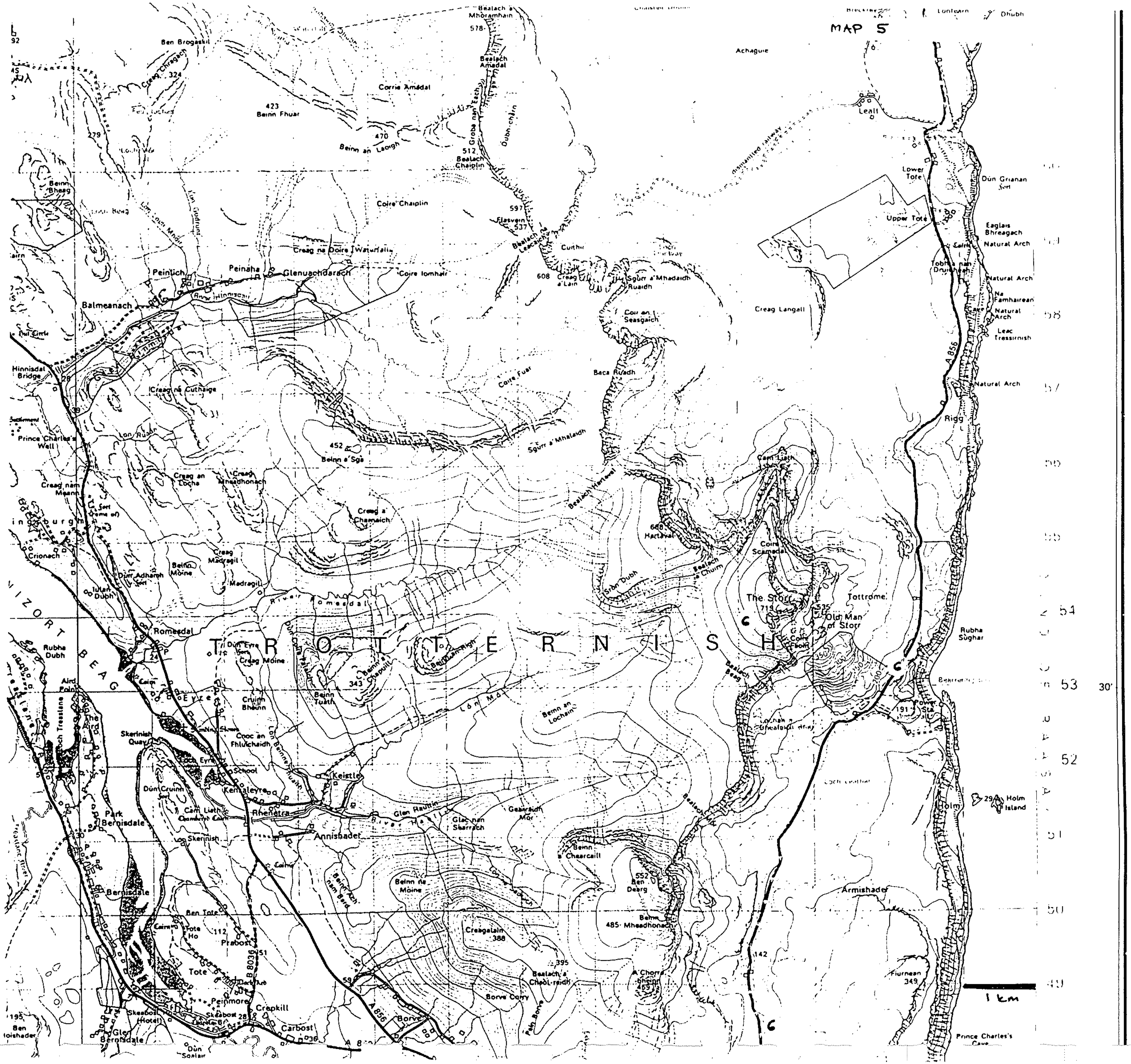
There is a general map of Skye (Map 1) that shows the location of the 6 more detailed maps (Maps 2-7) that are needed for the 8 excursions. On the detailed maps, the numbered circles show the localities to be visited on the 8 excursions detailed in the section on Excursions.

MAP 1 GENERAL
MAP 2
MAP 3
MAP 4
MAP 5
MAP 6
MAP 7
10 km
1
2
3
4
5
6
7
8
VATERNISH POINT
LOCH SNIZORT
DUNVEGAN HEAD
LOCH DUNVEGAN
Uig Bay
Staffin Island
ISLAND OF RONA
SOUND OF RAASAY
INNER SOUND
CROWLIN ISLANDS
SCALPAY
Longay
Pabay
Broadford Bay
LOCH TORRIDON
Applecross
LOCH BRACADALE
IDRIGILL POINT
Hoe Point
Loch Brittle
SOAY SOUND
SOAY
LOCH SCAVAIG
Loch Eishort
Point of Sleat
CANNA
Sanday
SOUND OF CANNA
RHUM
SOUND OF RHUM
LOCH NEVIS
Ornsay
Isleornsay
Armadale
Kyleakin
LOCH ALSH
Port Henderson
Black Island
Glenelg

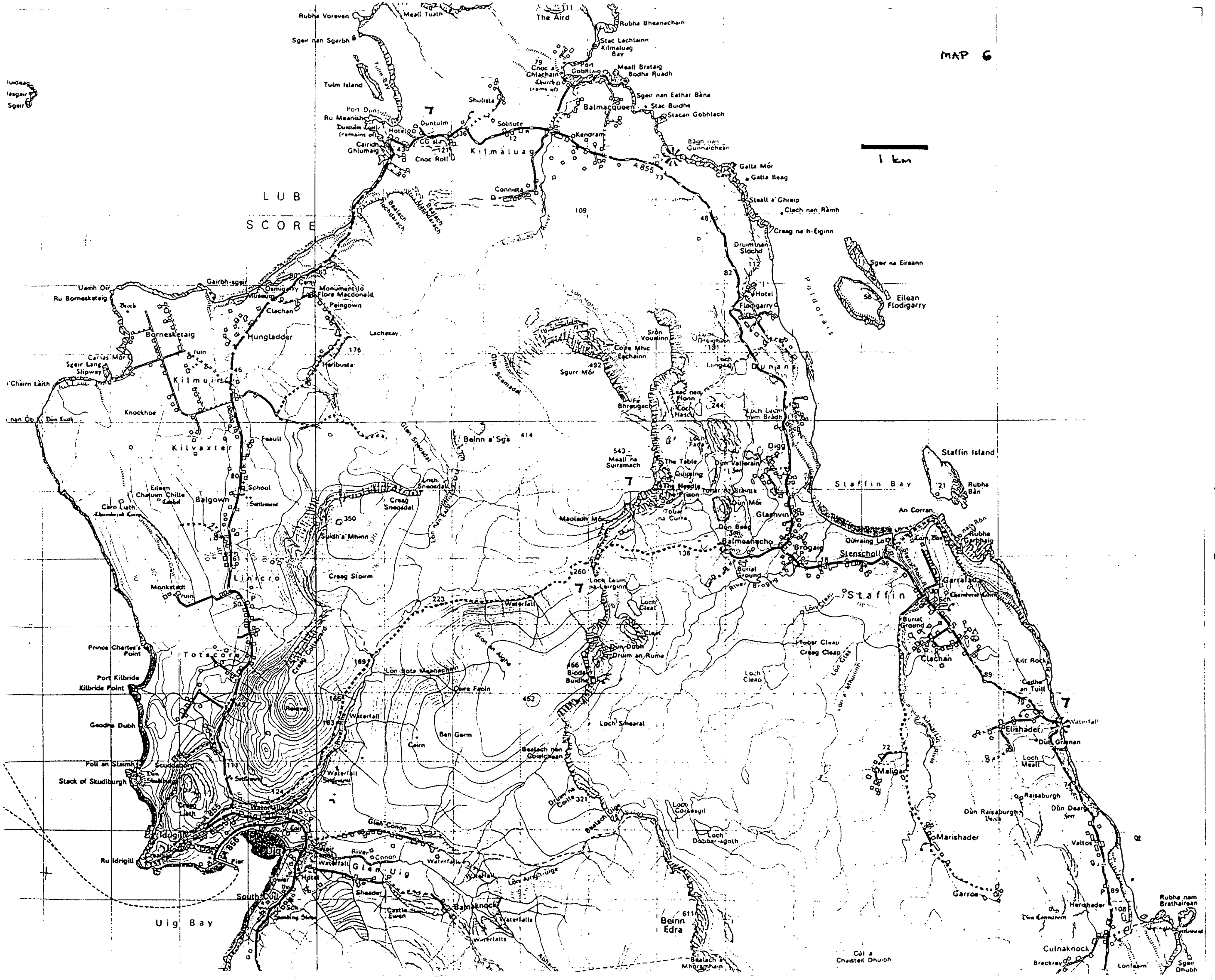

MAP 2
LOCH SLAPIN
Loch Ainort
Loch na Cairidh
Broadford Bay
Broadford
1 km
Scalpay
Guillamon Island
PABAY
SKYE AND LOCHALSH DISTRICT


MAP 3
LOCH EISHORT
Sgeir an t-Sruith
Sgeir Gormul
Calaman
Rubha Dubh Ard
Bagh an Dubh Ard
Eilean Dubh
Ord
Sgeir nam Fladhe
Inver Aulavaig
Eilean Ruairidh
Ob Gauscavaig
Uamh Tarskavaig
Bogha Daraich
Camas Daraich
Tarskavaig Point
Tarskavaig Bay
Tarskavaig
Achnacloich
Sgeir Mhór
Rubha Sloc an Eòrna
Loch Dhùghaill
Loch a' Ghlinne
Inver Dalavil
Rubha Caradal
Loch Horaveg
Beinn Mhòraich
Monadh Mòrsaig
Loch an Iasgaich
Meall Buidhe
A' Mhaoile 158
Cnoc Breac
School
Isleornsay
Eilean Iarmain
852
Camascross
Beinn an Duibh Leathaid
Loch nan Dubhrachan
Loch an Ime
Ob Snaosaig
Loch Baravaig
Camas Baravaig
Toravaig House Hotel
Knock Bay
Sgeir Ramasgaig
Teangue
Kilmore
Kilbeg
Bàgh a' Mhuilinn
Armadale Bay
Pier
Rubha Phòil
Eilean Maol
Rubha Dubh
Sgeir Mhic Eachain
Calligarry
An Fhaochag
Ferry P Mallaig - Kyle
1 km
O F
SLEAT
LOCHABER DISTRICT
Lat 57° 05' N
10'
15
14
13
12
11
10
09
08
07
06
05
04
03
02


MAP 4
1 km
Loch Sligachan
Loch Ainort
GLEN BRITTLE
FOREST
Balmeanach Bay
Ben Lee
A 863
A 850
B 8009
B 883

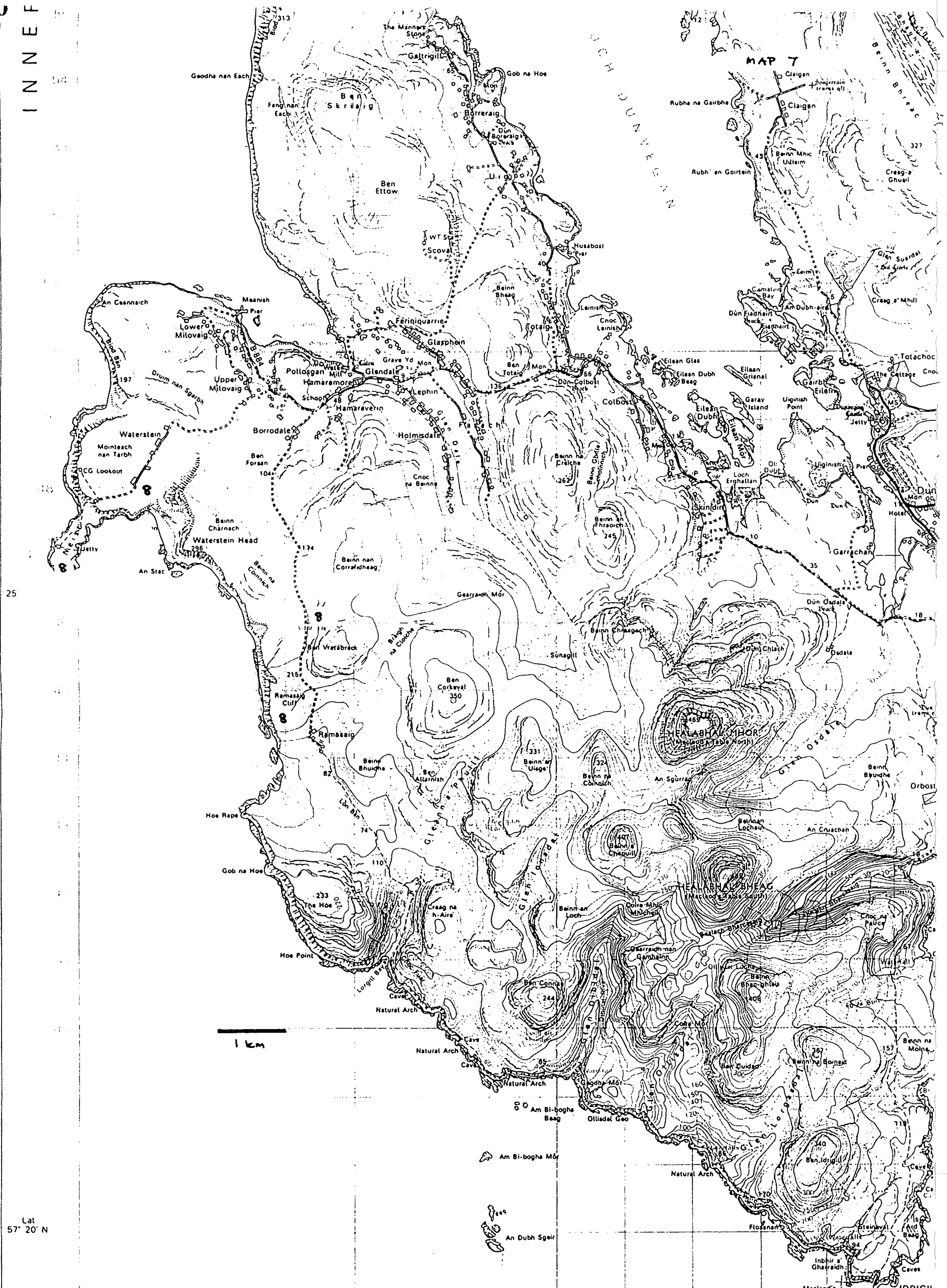


MAP 5
TROTTERNISH
1 km
A856
Achague
Leall
Lower Tote
Upper Tote
Dùn Grianan
Eaglais Bhreagach
Natural Arch
Na Famhairean
Leac Tressirnish
Creag Langall
Rigg
The Storr
719
Old Man of Storr
Tottrome
Rubha Sùghar
Holm
Holm Island
Armishader
Fiurnean
349
Prince Charles's Cave
Bealach a' Mhòramhain
578
Bealach Amadal
Corrie Amadal
Beinn Fhuar
423
Beinn an Laoigh
470
Bealach Chaiplin
Coire Chaiplin
512
597
537
608
Sgùrr a' Mhadaidh Ruaidh
Coir' an t-Seasgaich
Baca Ruadh
Coire Fuar
Sgùrr a' Mhalaidh
Beinn a' Sgà
452
Creag a' Chamaich
Hartaval
Coire Scamadal
Bealach a' Chuirn
Bealach Beag
Beinn an Lochain
Beinn Tuath
343
Creag Mòine
Cruinn Bheinn
Cnoc an Fhluchaidh
Keistle
Glen Haultin
River Haultin
Gearraidh Mòr
Beinn a' Chearcaill
Ben Dearg
552
Beinn Mheadhonach
485
Beinn na Mòine
Creagalain
388
Bealach a' Chuil-reidh
395
Borve Corry
A' Chorra-bheinn
Borve
Carbost
Crepkill
Peinmore
Tote
Prabost
B 8036
Ben Tote
Bernisdale
Park
Skerinish
Kensaleyre
Rhenetra
Annishader
Skerinish Quay
Romesdal
River Romesdal
Rubha Dubh
Aird Point
Loch Eyre
Eyre
Dùn Cruinn
Càrn Liath
Madragil
Creag Madragil
Beinn Mòine
Dùn Adhamh
Creag an Locha
Creag Mheadhonach
Creag na Cuthaige
Prince Charles's Well
Creag nam Meann
Crionach
Hinnisdal Bridge
Balmeanach
Peinlich
Peinaha
Glenuachdarach
River Hinnisdal
Creag na Doire Waterfalls
Coire Iomhair
Ben Brogaskil
Creag Chragach
324
Beinn Bheag
279
Skeabost (Hotel)
Glen Bernisdale
Dùn Scolair
Ben Loishader
195
SNIZORT BEAG
Loch Treaslane
Treaslane
The Aird
30'



MAP 6
1 km
Rubha Voreven
Meall Tuath
The Aird
Rubha Bheanachain
Sgeir nan Sgarbh
Stac Lachlainn
Kilmaluag Bay
Tulm Bay
Tulm Island
Cnoc a' Chlachain
Port Gobhlaig
Meall Bratag
Bodha Ruadh
Sgeir nan Eathar Bàna
Balmacqueen
Stac Buidhe
Stacan Gobhlach
Shulista
Duntulm
Hotel
Solitote
Kendram
Kilmaluag
Cnoc Roll
Bàgh nan Gunnaichean
A 855
Galta Mór
Galta Beag
Connista
Steall a' Ghreip
Clach nan Ràmh
LUB SCORE
Creag na h-Eiginn
Druim nan Slochd
Sgeir na Eireann
Eilean Flodigarry
Hotel
Flodigarry
Polldorais
Uamh Oir
Ru Bornesketaig
Gairbh-sgeir
Osmigarry
Monument to Flora Macdonald
Museum
Peingown
Clachan
Bornesketaig
Hungladder
Lachasay
Heribusta
Carnas Mór
Sgeir Lang
Slipway
Kilmuir
Sgurr Mór
Coire Mhic Eachainn
Dunans
Knockhoe
Beinn a' Sgà
Meall na Suiramach
The Table
Quiraing
The Needle
The Prison
Digg
Kilvaxter
Staffin Island
Staffin Bay
Rubha Bàn
School
Balgown
Carn Liath
Maoladh Mór
Dùn Mór
Glashvin
An Corran
Suidh' a' Mhinn
Balmeanach
Brogaig
Stenscholl
Rubha Garbhaig
Creag Stoirm
Linicro
Monkstadt
Garrafad
Staffin
Waterfall
River Brogaig
Prince Charles's Point
Totscore
Port Kilbride
Kilbride Point
Dùn Dubh
Druim an Ruma
Creag Cleap
Loch Cleap
Kilt Rock
Clachan
Lòn Bota Mhanachain
Coire Faoin
Biodà Buidhe
Geodha Dubh
Ben Geary
Cairn
Loch Smearal
Ellishader
Dùn Grianan
Loch Mealt
Poll an Staimh
Stack of Skudiburgh
Maligar
Creag Liath
Drum na Coille
Raisaburgh
Dùn Raisaburgh
Dùn Dearg
Idrigill
Glen Conon
Loch Corcasgil
Loch Dubhar-sgoth
Marishader
Valtos
Ru Idrigill
Uig
Pier
River Conon
Glen Uig
South Cuil
Sheader
Balnaknock
Castle Ewen
Garros
Herishader
Rubha nam Brathairean
Uig Bay
Beinn Edra
Dùn Connavern
Culnaknock
Bealach a' Mhoramhain
Cùl a' Chaisteil Dhuibh
Brecknish
Lonfearn
Sgeir Dhubh

Lat
57° 40' N


MAP 7
The Manners Stone
Galtrigill
Gob na Hoe
Geodha nan Each
Ben Skriaig
Fang nan Each
Borreraig
Dùn Borreraig
Uig
Ben Ettow
Scoval
Husabost Pier
Beinn Bheag
Feriniquarrie
Glasphein
Totaig
Lainish
Cnoc Lainish
An Ceannaich
Meanish Pier
Lower Milovaig
Upper Milovaig
Drum nan Sgarbh
Pollosgan
Hamaramore
Glendale
Lephin
Ben Totaig
Dùn Colbost
Colbost
Hamaraverin
Holmisdale
Borrodale
Waterstein
Mointeach nan Tarbh
CG Lookout
Ben Forsan
Cnoc na Beinne
Beinn na Creiche
Beinn an Fhraoich
Beinn Charnach
Waterstein Head
An Stac
Beinn nan Corrafidheag
Gearraidh Mòr
Ben Vratabreck
Beinn Chreagach
Sunagill
Ramasaig Cliff
Ramasaig
Ben Corkeval
350
Beinn Bhuidhe
Ben Allarnish
Beinn an Uisge
Beinn na Cornaich
HEALABHAL MHOR
(Macleod's Table North)
An Sgùrr
Glen Osdale
Hoe Rape
Gob na Hoe
The Hoe
Creag na h-Aire
Beinn a' Chapuill
HEALABHAL BHEAG
(Macleod's Table South)
Beinn an Loch
Coire Mhic Mhicheil
Bealach Bharcasaig
Hoe Point
Lorgill Bay
Caves
Natural Arch
Ben Connan
Gearraidh nan Gamhainn
Beinn Bhac-ghlais
Coire Mòr
Ben Cuidag
Beinn na Boineid
Natural Arch
Cave
Geodha Mòr
Am Bi-bogha Beag
Ollisdal Geo
Am Bi-bogha Mòr
Natural Arch
Ben Idrigill
An Dubh Sgeir
Flosnan
Inbhir a' Ghàraidh
Macleod's Maidens
IDRIGIL
Claigan
Rubha na Gairbhe
Beinn Mhic Uilleim
Rubh' an Goirtein
Creag a' Ghuail
Glen Suardal
Camalaig Bay
Dùn Fiadhairt
Am Dubh-aird
Creag a' Mhill
Eilean Glas
Eilean Dubh Beag
Eilean Grianal
Garay Island
Uiginish Point
Eilean Dubh
Eilean Mòr
Loch Erghallan
Skinidin
Uiginish
Totachoc
The Cottage
Gairbh Eilean
Jetty
Hotel
Garrachan
Dùn Osdale
Osdale
Beinn Bhuidhe
Orbost
Beinn nan Lochan
An Cruachan
Cnoc na Pairce
Beinn na Moine
1 km
25
Lat
57° 20′ N

Geology, climate, and land-use

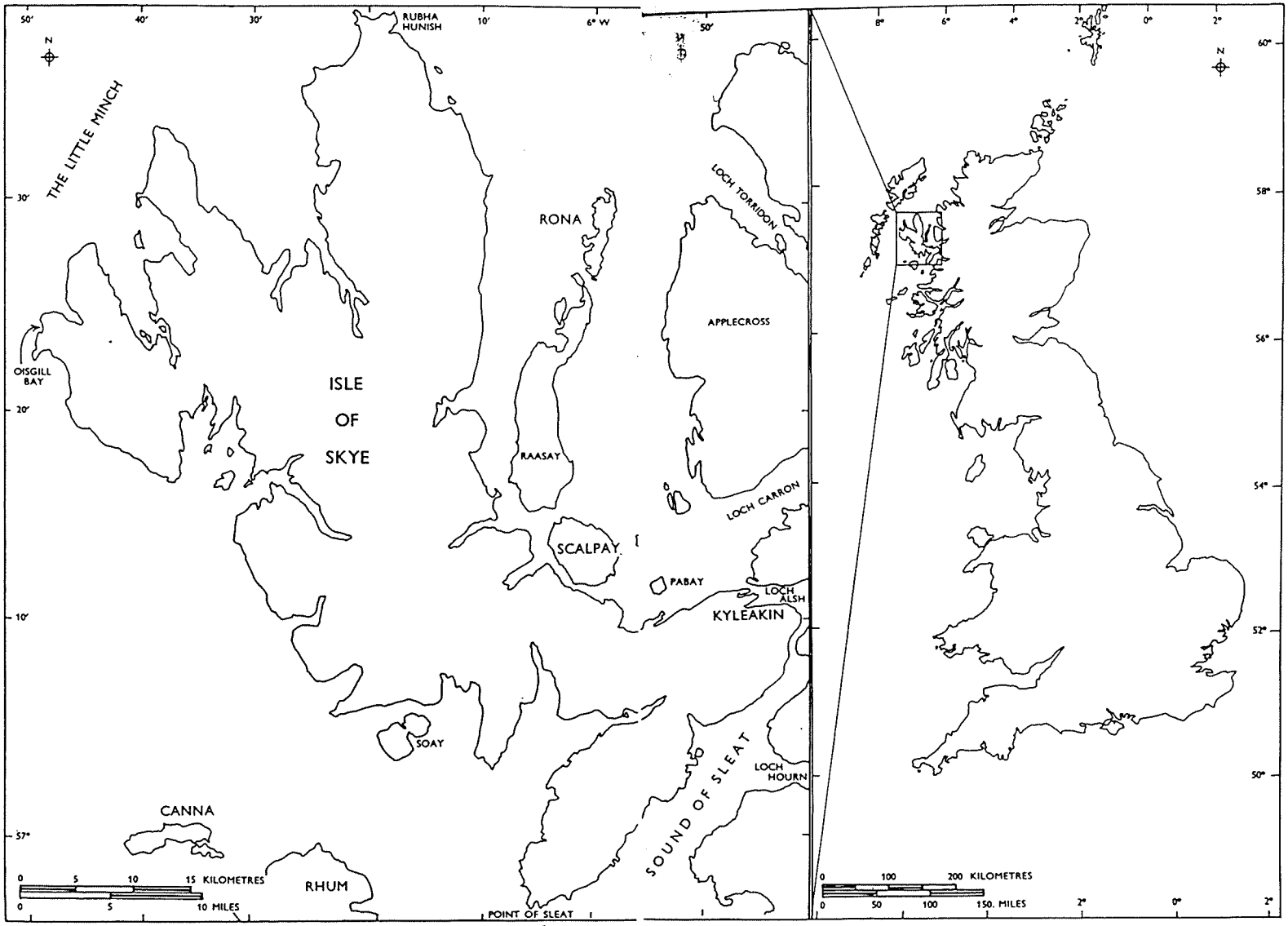


Figure 1. Map showing the location of the Isle of Skye in relation to the British Isles (right) and to the Scottish mainland (left).

1. LOCATION

The Isle of Skye lies off the north-west coast of Scotland between latitudes 57° 03′ N and 57° 44′ N, and longitudes 6° 46′ W and 5° 38′ W. It is the largest island in the Inner Hebrides and it forms part of the political county of Inverness-shire. It is separated from the mainland of Scotland (Fig. 1) by the Sound of Sleat, Kyle Rhea, Loch Alsh, and the Inner Sound, and from the Outer Hebrides by the Minch and the Little Minch. The island is 48 miles (77 km) long from Rubha Hunish in the north to the Point of Sleat in the south, and 52 miles (84 km) wide from Oisgill Bay in the west to Kyle Rhea in the east. The coast is deeply indented so that no part of the island is more than 5 miles (8 km) from the sea. It has a total area of 670 square miles (1720 km^2).

2. GEOLOGY AND TOPOGRAPHY

The geology of the Isle of Skye has been described in detail in the *Memoirs of the Geological Survey* (Anderson & Dunham, 1966; Clough & Harker, 1904; Harker, 1904; Peach *et al.* 1910) and in Richey (1961); therefore only a brief account is given here. The solid geology and the topography of the island are shown in a simplified form in Figs. 2 and 3 respectively. Skye is conveniently divided, topographically as well as geologically, into several regions.

(i) the Sleat Peninsula,
(ii) Suardal,
(iii) the Kyleakin region,
(iv) northern Skye,
(v) the Cuillin Hills, and
(vi) the Red Hills.

The boundaries of these regions are delimited in Chapter 5 (see p. 170 and Fig. 5).

The *Sleat Peninsula* consists exclusively of Palaeozoic rocks, and although there are no areas above 1000 feet (304 m), the topography is rugged, with steep, bare rock-outcrops, peat-filled hollows and small lochans, and several deeply-cut ravines with waterfalls. Lewisian gneiss occurs quite extensively in the eastern part of the Sleat Peninsula, and it is separated from Torridonian rocks to the west by the Moine Thrust Plane. The Lewisian rocks consist largely of hard foliated hornblende gneiss and granulite, with occasional outcrops of hornblende schist, often rich in chlorite and epidote; the Torridonian rocks are felspathic sandstones, shales, and grits. In the south and south-west region of the Sleat Peninsula there are outcrops of basic Moine phyllites and schistose grits. The structural relationships of these three series on Skye are complex due to overthrusting from the east along the Moine Thrust Plane.

Suardal. Cambrian, and possibly Early Ordovician, rocks outcrop locally in the Sleat near Ord and more extensively to the north of Loch Eishort and to the south-west of Broadford in Strath Suardal. The rocks at Ord have probably been moved from the east by overthrusting, and they were probably once largely covered by Torridonian rocks that were then also thrust forward along thrust-planes. The thrusts have been folded into anticlines, in the centres of which the Cambrian rocks are exposed. Cambrian Quartzites, Fucoid Beds, and Serpulite Grits are overlain by Durness limestones and dolomites, the probable age of which is Early Ordovician (Phemister, 1960). These limestone outcrops are important topographically in that they occur as low scarps and as fragmentary areas of limestone pavement with some karstic landforms such as clint and grike structures, especially on Ben Suardal and at Torrin. The limestones and dolomites of Ben Suardal are in part altered to marble by the Tertiary intrusions, and they have developed many metamorphic minerals, for example chondrodite, humite, fluoborite, datolite, harkerite, monticellite, and magnetite (Richey, 1961).

The Kyleakin region consists primarily of Torridonian sandstones, rising to form two peaks (Sgùrr na Coinnich and Beinn na Caillich) above 2000 feet (610 m). The topography is rather subdued with few extensive cliffs or rock outcrops, but there are many deep ravines with waterfalls, formed by streams descending radially from the high ground, for example to the east of Kinloch and Loch na Dal.

Northern Skye consists largely of three peninsulas, Trotternish, Vatternish, and Duirinish. The central area around Portree is nowhere above 1000 feet (305 m) except for a small group of flat-topped hills to the south-west of Portree. The area has an extensive drift cover, with complex drainage systems and numerous small lochans and peat-filled hollows. The central area is separated from the Trotternish Peninsula to the north by a low-lying strath which runs north-westwards from Portree to Loch Snizort Beag. It is separated from the Vaternish and Duirinish Peninsulas by Loch Greshornish, the valleys of the Red Burn and Caroy River, and Loch Bracadale.

The Trotternish Peninsula consists of Jurassic rocks, outcropping primarily along the east coast, overlain by a considerable thickness of Tertiary volcanic rocks. Elsewhere the Jurassic rocks lie largely below sea-level, and are only sporadically exposed by minor folds, as in Loch Bay and in the extreme west near Oisgill Bay. The Mesozoic rocks are lithologically varied, with sandstones, shales, limestones, ironstones, lignites, and oil shales, representing a lower marine series (Lias and Inferior Oolite), followed by the Great Estuarine Series (estuarine deposits), after which marine conditions led to the deposition of the Oxford Clay, the Corallian, and the Kimmeridge Clay. After the close of the Jurassic these sediments were folded into a gentle syncline with a slight northerly pitch to its north-north-east axis. The syncline was later eroded apparently to base-level, for the overlying Tertiary lavas were seemingly extruded over a smooth peneplane.

Tertiary volcanic activity, beginning perhaps in the Eocene, was marked initially by a considerable thickness of water-deposited tuffs, and subsequently by extensive lava sheets, attaining thicknesses of up to 4000 feet (1220 m). The lavas occur as flows, usually about 50 feet (15 m) thick, consisting of hard olivine-basalt, commonly exhibiting columnar jointing and interspaced with softer amygdaloidal slag. The differential resistance of these layers to erosion produces the characteristic low, broad flat-topped hills and terraced slopes of much of northern Skye. Lapses in volcanic activity were sometimes long enough for local soil and vegetational development. Thin lateritic soil and plant beds are preserved in a few areas. The plant remains have not been examined in detail, but macrofossils of *Ginkgo*, *Cryptomeria*, *Sequoia*, and *Platanus* have been reported (Anderson & Dunham, 1966).

The topography of northern Skye is rugged, rocky, and often spectacular, although there are large areas of hummocky, peat-covered ground in the lowlands. The Trotternish Peninsula is traversed for most of its length by the impressive east-facing basalt escarpment rising to 2360 feet (723 m) at The Storr, and gradually descending to Meall nan Suireamach (1779 feet, 582 m) in the north. The escarpment is probably the most extensive inland cliff system in Britain, with several vertical buttresses over 500 feet (153 m) high. Along the scarp there are frequent screes and rocky gullies, and there are many extensive landslips caused by rotational slipping and slumping producing a mass of collapsed basalt columns, tumbled rocks, block litters, and detached pinnacles that extend for some considerable distance (up to 7000 feet, 2170 m at The Quirang) away from the cliffs (see Anderson & Dunham, 1966). In contrast the western slopes of the Trotternish ridge are gentler, they are extensively peat covered, and they largely follow the low westward dip of the lavas. In one place, Glen Uig, the River Conon has cut through the lavas to expose in an amphitheatre the underlying Jurassic sediments. The slopes are dissected by consequent streams rising in the high ground and flowing rather sinuously through open alluvial valleys into Loch Snizort. Springs and diffuse areas of surface-water seepage are numerous and occur at all levels in northern Skye.

The Vatternish and Duirinish Peninsulas have little ground over 1000 feet (310 m) and, as the base of the lavas occur at or below sea-level, landslips are only developed in one or two places, such as Score Horan, Waterstein Head, and Beinn Bhreac. The coastline is extremely precipitous with spectacular sea-cliffs descending vertically in places for nearly 1000 feet (310 m). Biod an Athair near Dunvegan Head rises almost vertically from the sea to 1025 feet (314 m), and Waterstein Head is a near-vertical face 967 feet (294 m) high. The coastal cliffs are cut by several deep ravines and waterfalls. The Macleod's Tables, consisting of Healaval Mhor (1538 feet, 470 m) and Healaval Beag (1601 feet, 490 m) are the highest points in north-west Skye, and they are characteristic flat-topped terraced, basalt hills.

The central area of Skye, comprising the *Cuillin Hills* (including Blà Bheinn), the *Red Hills*, and the *Elgol Peninsula*, is one of marked geological and topographical diversity. The Elgol Peninsula is a lowlying area consisting primarily of Jurassic limestones, shales, and sandstones with some overlying basalts and intruded dolerite sills. The Cuillin Hills contain the highest peak on Skye (Sgùrr Alasdair; 3309 feet, 1014 m) and twenty-two other peaks over 3000 feet (920 m). These hills and the nearby Blà Bheinn have a characteristic form with serrated peaks, narrow summit ridges, deeply cut corries often with high cliffs and small, moraine-bounded lochans, and extensive scree- and boulder-strewn slopes (see Haynes, 1968). They consist of basic and ultra-basic plutonic rocks, mainly hard gabbro rich in olivine and labradorite feldspar, that were intruded into the surrounding low-lying lavas. Other ultra-basic rocks in the Cuillins, for example on Sgùrr Dubh, include peridotite, dunite, picrite, and allivalite. It is this rapid variation in rock type that gives rise to the serrated outline of the Cuillins, as many of the gullies represent basic dykes which have been more easily eroded than the gabbro they traverse. At a later stage there were intrusions of granite and granophyre to the north and east of the Cuillins, forming the Red Hills. These are topographically more subdued than the Cuillin Hills, with gently contoured slopes, broad watersheds, and summit plateaux attaining 2537 feet (780 m) on Sgùrr Mhair and 2400 feet (740 m) on Beinn na Caillich, Broadford. In the Red Hills there are fewer corries and cliffs than in the Cuillins.

There are several examples in the Red Hills and the Cuillins of the intermingling of, and reaction between, acid and basic materials, one or both of which were in the liquid state. For example, on Marsco a hybrid rock termed marscoite was interpreted by Harker (1904) as an instance of the acidification of a basic magma by the inclusion of granitic material.

The last igneous phase was a complex series of minor intrusions forming radially-arranged composite horizontal sills and basic dyke swarms consisting of trachytes, mugearites, andesites, olivine–dolerites, and pitchstones. Several of these sills form impressive inland crags, such as Preshal More, Preshal Beg, and Stockval near Talisker. Rockfalls formed by debris from the scarp of columnar-jointed dolerite sills are rare on Skye, but two fine examples occur near Rubha Garbhaig, Staffin and Cnoc Roll, just south of Duntulm. Sills within the Jurassic sediments of northern Skye (not shown in detail on Fig. 2) have produced many spectacular cliff-forms, such as the Kilt Rock near Staffin, where columnar dolerite forms the upper half of a 170 foot (52 m) vertical sea-cliff. Rubha na h-Airde Glaise, near Portree, rises to 1286 feet (420 m) above sea-level as a step-like cliff of Jurassic rocks and included dolerite sills.

At Rubha Hunish a near-vertical dolerite sill 380 feet (124 m) high forms the northernmost tip of the island. Along the east coast of the Trotternish Peninsula many of the streams follow rocky, turbulent courses along their entire length, but are often broken in places by sheer drops of great depth to the sea, as at Bearreraig River, River Lealt, and the Rigg Burn north of Portree.

In contrast, the coastline of southern Skye is less rugged, with large rather sheltered sea-lochs. The inland Loch Coruisk within the Cuillins occupies a steep sided rock-basin 125 feet (39 m) deep, which is cut 100 feet (30 m) below sea-level (see Harker, 1901). In several of the sea-lochs and around the low-lying coast, raised shoreline features are conspicuous, with level wave-cut rock platforms, beach gravels, and sea-caves (Donner, 1959; McCann, 1966).

3. CLIMATE

The Isle of Skye has a cool, oceanic climate, with a relatively small temperature range, a high and evenly distributed annual rainfall, strong winds, and high cloud cover. From its position on the western seaboard, Skye is one of the most oceanic regions in Britain with mountain peaks of 3000 feet (920 m) or more. Considering its high latitude (57°N), Skye possesses some anomalous climatic features. These stem from the warm North Atlantic ocean currents and the regional atmospheric circulation, which maintain a cool, but mild, maritime air stream over the island for much of the year. Climatic variations within the island are governed largely by topography. Meteorological data for Skye are available from two low-lying stations; Duntulm in northern Skye, and from Prabost in a rather dry coastal area of western Skye. Additional information for Staffin is given by Slesser (1970).

Average monthly values of daily mean temperature, daily maximum temperature, and daily minimum temperature for the period 1901–30 for lowland Skye (*Climatological Atlas*, 1952) are given in Table 3.1.

No temperature records are available for high levels in Skye comparable to those from Dun Fell (Manley, 1945) and Ben Nevis (Manley, 1952). Average monthly values of daily mean temperatures for the period 1901–30 have therefore been estimated for The Storr and Sgùrr Alasdair, the highest point on Skye, from the corresponding records at lowland stations, assuming a lapse rate of 1 °F (0.56 °C) for every 270 feet (82 m) altitude (Manley, 1952). The values, which can only be considered as approximate, are listed in Table 3.2.

The daily mean temperatures calculated for each month at 1000 feet (305 m) in Snowdonia (Ratcliffe, 1959) are similar to those at sea-level on Skye, illustrating the important gradient of decreasing warmth from south to north in Britain (see Spence, 1960). The range of mean monthly temperatures is 16 °F (8.3 °C) on Skye, in contrast to 21 °F (11.7 °C) in the eastern Highlands. The growing season has been defined in various ways; as the length of time with temperatures above 42 °F (5.6 °C) (Manley, 1952); or in terms of accumulated temperatures above 42.8 °F (6 °C) (Gregory, 1954; Fairbairn, 1968). Low-lying ground on Skye experiences between 833 and 1111 day-degrees C, in contrast to the higher ground above 3000 feet (920 m) with less than 300 day-degrees C. The short growing season and the low temperatures during much of the winter on the higher summits cause soil instability and solifluction. Although variations in temperature are related mainly to altitude, aspect may also be important by affecting insolation, tending to reduce temperatures on shaded, steep north-west to north-east slopes, especially during the winter. Low ground on Skye is generally free from air-frosts from mid-April to late November.

TABLE 3.1 *Average monthly values of temperature for lowland Skye* (°C)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Daily mean (1901–30)	4.2	4.7	5.3	6.9	9.5	11.7	13.6	13.6	11.7	9.2	5.8	5.3
Daily maximum (1901–30)	6.8	7.2	8.3	10.6	13.3	15.5	18.3	16.7	14.4	13.9	8.3	6.8
Daily minimum (1901–30)	2.2	2.2	2.2	3.3	5.5	8.3	10.6	10.0	7.7	5.5	3.9	2.2

TABLE 3.2 *Estimated average monthly values of daily mean temperature for The Storr and Sgùrr Alasdair* (°C)

Locality	Altitude (m)	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Broadford	0	4.2	4.7	5.3	6.9	9.5	11.7	13.6	13.6	11.7	9.2	5.8	5.3
The Storr	723	−0.7	−0.1	0.4	2.1	5.4	5.9	8.8	8.8	5.9	4.3	1.0	0.4
Sgùrr Alasdair	1014	−2.7	−2.1	−1.6	0.1	2.6	4.8	6.2	6.2	4.8	2.3	−1.0	−1.6

TABLE 3.3 *Average monthly rainfall (mm) at Portree (sea-level) for the period 1916–1950 (from* Annual Average Rainfall Map, 1967)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total for year (mm)
205	140	115	115	95	105	120	140	170	220	200	190	1815

Total annual average rainfall on Skye is between 65 and 80 inches (165–203 cm) in the lowlands, increasing with altitude to at least 90 inches (228 cm) on The Storr, whereas a limited area centred around the Cuillins probably receives at least 125 inches (318 cm) a year (*Annual Average Rainfall Map*, 1967). Broadford, in the lee of the Red Hills and the Cuillins, receives over 100 inches (254 cm) a year at sea level (Slesser, 1970). Rainfall does not show a simple relation to altitude for, although it tends to increase with height on any one slope, the zone of highest precipitation usually extends some distance to the leeward of the highest ground, thus affecting low ground as well. This may also be followed by a rain shadow. The rainfall along the coast is almost invariably less than it is a little distance inland, due mainly to disturbances of air flow resulting from changes in relief. Rainfall is distributed rather evenly throughout the year (see Table 3.3), and although prolonged and heavy rain may fall in any one month, there are few lengthy drought periods in the lowlands (except for remarkable summers, such as 1968). The winter months are the wettest, though July and August are highly placed in the order of monthly rainfall.

Relative humidity is generally high (>75%) throughout the year. The average annual number of rain-days (a day with at least 0.01 inches (0.2 mm) rain) is about 250 (*Climatological Atlas*, 1952) and there are 200–220 wet-days (a day with at least 0.04 inches (1 mm) rain) throughout the island, increasing to 220+ in the uplands (Ratcliffe, 1968). The average annual potential water deficit (soil water deficit) is insignificant (<0.5 inches, 1.27 cm) throughout the island (Green, 1959; 1964), but this probably varies locally with topography, aspect and soil characteristics. For example, steep north- and east-facing slopes tend to be wetter in both atmosphere and soil, for the reduction of insolation reduces evaporation and transpiration rates. In contrast, on wind-exposed slopes and summit plateaux where the severe winds aid dessication and where there are no ground-water sources to replenish water losses, short term increases in potential water deficit may occur.

Cloud cover is correlated with rainfall, and the Cuillins and the Trotternish Peninsula experience a high cloud-cover, whereas the Red Hills and the Kyleakin Hills appear to experience a lower amount of cloud. Mist is frequent on ground above 1000 feet (305 m) at all times of the year. Besides maintaining a regionally high air humidity, prolonged low cloud reduces incident radiation and air temperature, thus potentially limiting plant growth.

There is a striking west–east gradient across Skye in the average daily duration of bright sunshine (*Climatological Atlas*, 1952) with the Duirinish, Glenbrittle, Elgol, and Sleat Peninsulas receiving a greater total sunshine than any other parts of the island. The importance of this in terms of plant growth is strikingly shown by the luxuriance of hedgebanks and crops in the Sleat Peninsula.

In contrast to its importance in the eastern Highlands, snow appears to have limited effects on the montane vegetation of Skye. The duration of snow-lie varies greatly from one winter to another. A little snow usually falls on the Cuillin summits before the end of October, and during the rest of the winter there are alternating and variable periods of snow-cover and thaw until the end of March. Snow-patches only persist very locally in high-lying sheltered depressions and shaded gullies with a northerly aspect until late July following winters when accumulation has been heavy, and after a cold spring with little warm, heavy rain. Such areas support a characteristic vegetation (see Chapter 4). The *Climatological Atlas* (1952) shows annual averages of 10–20 mornings with snow lying in the lowlands in the period 1912–38, increasing to 30 mornings in the Cuillins, and of 20–25 days with snow falling on low ground. These figures contrast with figures of over 100 mornings and 30–35 days, respectively, in the Cairngorms. Records of snow-cover at various altitudes in the Cuillins are given in the *Snow Survey of Great Britain* (1948–56). The mean annual number of days with snow lying at 3000 feet (920 m) is about 75 days, decreasing to 25 days at 1000 feet (305 m). This contrasts with 45–60 days in Snowdonia and over 140 days on Ben Nevis and the Cairngorms at 3000 feet (920 m), and with 215 days at 4000 feet (1220 m) on Ben Nevis. Manley (1952) has calculated that the present snow-line would be 5300 feet (1620 m) on Ben Nevis.

Prevailing wind directions are largely north-west to south, influenced by North Atlantic depressions, and the average wind-speed is about 6.7 ms^{-1} at 33 feet (10 m) above ground level in open situations (*Climatological Atlas*, 1952). There are no measurements of wind speeds on high ground on Skye, but discounting shelter effects, wind-exposure increases with altitude, and it is extreme on the highest summits. Average wind-speeds on the Cuillins are probably between those on Ben Nevis (13.4 ms^{-1}) and Dun Fell (8.9 ms^{-1}) (figures from Manley, 1945; 1952). At sea-level Skye experiences gale-force winds (a wind greater than 16.4 ms^{-1}) on 20–30 days a year (*Climatological Atlas*, 1952), and although wind-exposure can vary locally with topography, there will be a greater frequency of gale-force winds at higher altitudes, perhaps between 150 and 200 days a year. This would be a rather lower frequency than the summit of Ben Nevis where over a period of 16 years, the average annual frequency of gale-force winds was 261 days.

4. LAND USE

The present population of the Isle of Skye is about 7400 people, 2500 of whom live in Portree or Broadford. The remainder are divided among about 180 townships that are mostly situated in fertile areas near the coast. At the beginning of the nineteenth century the population was at a maximum of 23074 people (Murray, 1966), mainly engaged in crofting, fishing, and kelp-burning. Between 1840 and 1880 sheep-farming was introduced, and there were many evictions of crofters. The dispossessed people mainly drifted southwards to the developing industrial areas or emigrated to America or Australia, although some accepted tiny holdings offered to them along the coast. Since the 1886–1911 Small Landholders (Scotland) Acts the land has been redistributed, and during the present century government grants for land improvement have become available, resulting in the reclamation, reseeding, and general improvement of over 250 hectares since 1956.

Crofted land is used for growing crops of potatoes and oats, or for hay for livestock. The only part of Skye that is climatically suitable for growing other crops is the Sleat, but the soils are rather poor for profitable yields. There are more fertile soils on the basalts in the northern part of the island, but the climate there is more severe.

Most of the island is managed as upland hill pasture, and it is grazed mainly by sheep. There are over 100000 sheep on Skye, primarily Black-faced sheep, and about 11000 cattle, mostly Highland breeds. The stocking rates of breeding sheep are rather low, with one sheep per 4 hectares or more over much of the island, increasing to one sheep per 2.2 hectares on the more fertile pastures in the Trotternish Peninsula (King & Nicholson, 1964). The grazing pressures are not uniformly distributed over the island, for quite apart from differences in management of different flocks, there is selective grazing both by wild and domestic animals of the more productive and fertile areas. Further differences arise from the fact that sheep tend to graze less on steep, rocky sites than on unbroken slopes, and that the higher summit areas are usually grazed during the summer only. Many of the more fertile grasslands on the basalt soils in Trotternish are badly overgrazed, both by sheep and by rabbits, resulting in the loss of vegetational cover, and consequent sheet and gully erosion and loss of soil on many of the steeper slopes (McVean & Lockie, 1969).

There is little game preservation on Skye, except for some stalking of red-deer (*Cervus elephus* L.) in the Cuillins and Red Hills, and some shooting of grouse (*Lagopus lagopus* L.) on some of the more remote moors. Although moor-burning is not greatly in evidence at present, there are indications that it has been widely practised in the past. There have been many attempts at drainage of wet ground in the lowlands, and locally a great amount of peat is still cut for fuel, especially near the coastal townships. Most areas of bog, both in the lowlands and the uplands, have been burnt and cut at some time, often resulting in peat erosion and bog degeneration.

Over 2000 hectares of lowland moorland and bog have been planted recently with introduced conifers by the Forestry Commission, and these activities are increasing. All the surviving areas of deciduous woodland appear to have been exploited to some degree for timber in the past.

Due to a rapidly increasing tourist trade, many of the roads on Skye have been improved and rebuilt, but despite the increased communications with the rest of Britain, there is likely to be little change in the land-use practices on Skye in the near future.

	J	F	M	A	M	J	J	A	S	O	N	D	Year
SUNSHINE													
Average (hrs)	40	76	106	151	180	172	128	137	99	72	45	32	1238
Possible (hrs)	188	235	336	399	477	495	496	442	357	290	204	163	4082
Average as % of possible	21	32	32	38	38	35	26	31	28	25	22	19	30
Top of range	44	51	41	65	63	56	40	62	44	36	38	41	35
Bottom	9	15	20	26	28	22	13	15	14	14	13	6	26
TEMPERATURE													
Average (°C)	4	4	5	7	10	12	13	13	11	9	5	4	8
Top of range Monthly	5	7	7	9	12	15	15	15	13	11	7	7	9
Bottom means	2	1	3	5	8	10	11	12	10	7	4	2	8
Extremes—Max	13	13	16	18	26	27	27	28	23	21	14	14	28
—Min	−8	−9	−6	−4	−2	1	3	3	0	−1	−5	−8	−9
RAINFALL													
Average (mm)	160	113	135	94	91	120	117	113	166	194	205	187	1699
Top of range Monthly	372	211	375	178	196	192	234	188	290	362	283	342	2261
Bottom totals	37	9	28	4	29	50	45	20	51	40	82	60	1369
Rain days(>5 mm)	11	8	8	7	6	8	8	8	11	13	14	13	113
Transpiration (mm)	10	17	27	36	57	67	49	44	31	20	14	13	386
WINTRY DAYS													
Snow fall	6	5	4	2	1	0	0	0	0	0	3	5	25
Snow lying	6	6	3	1	0	0	0	0	0	0	2	4	22
Air frost	9	10	5	3	1	0	0	0	0	0	4	7	40
Ground frost	20	19	18	15	7	2	1	1	2	6	16	19	125
Gale	6	4	4	2	2	1	1	1	3	4	5	6	40
WIND													
N or NW (%, 09 GMT obs)	13	10	15	22	22	21	26	23	17	15	18	14	18
W or SW	27	25	29	30	28	41	39	33	34	35	32	30	32
S or SE	42	45	39	26	29	25	22	30	32	38	34	40	34
E or NE	17	20	17	23	20	13	12	13	16	13	17	16	16
Mean Speed (m.p.h.)	15	14	14	13	12	12	11	10	12	14	14	15	13

Fig. 4. CLIMATE IN SKYE. Sample from 20 years observations (1959-78), Met.Office climate station at Prabost, (200 ft).

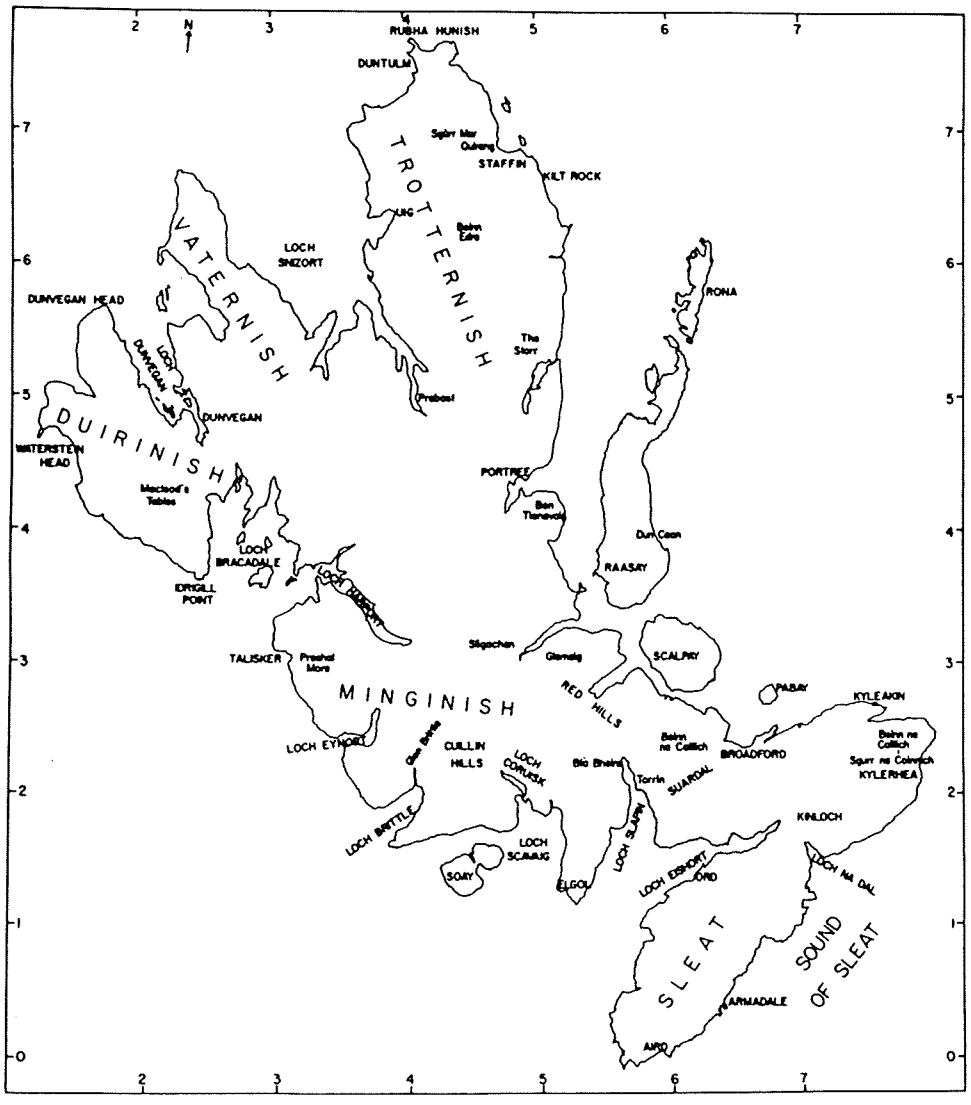


Fig 1. Isle of Skye—District and Place names.

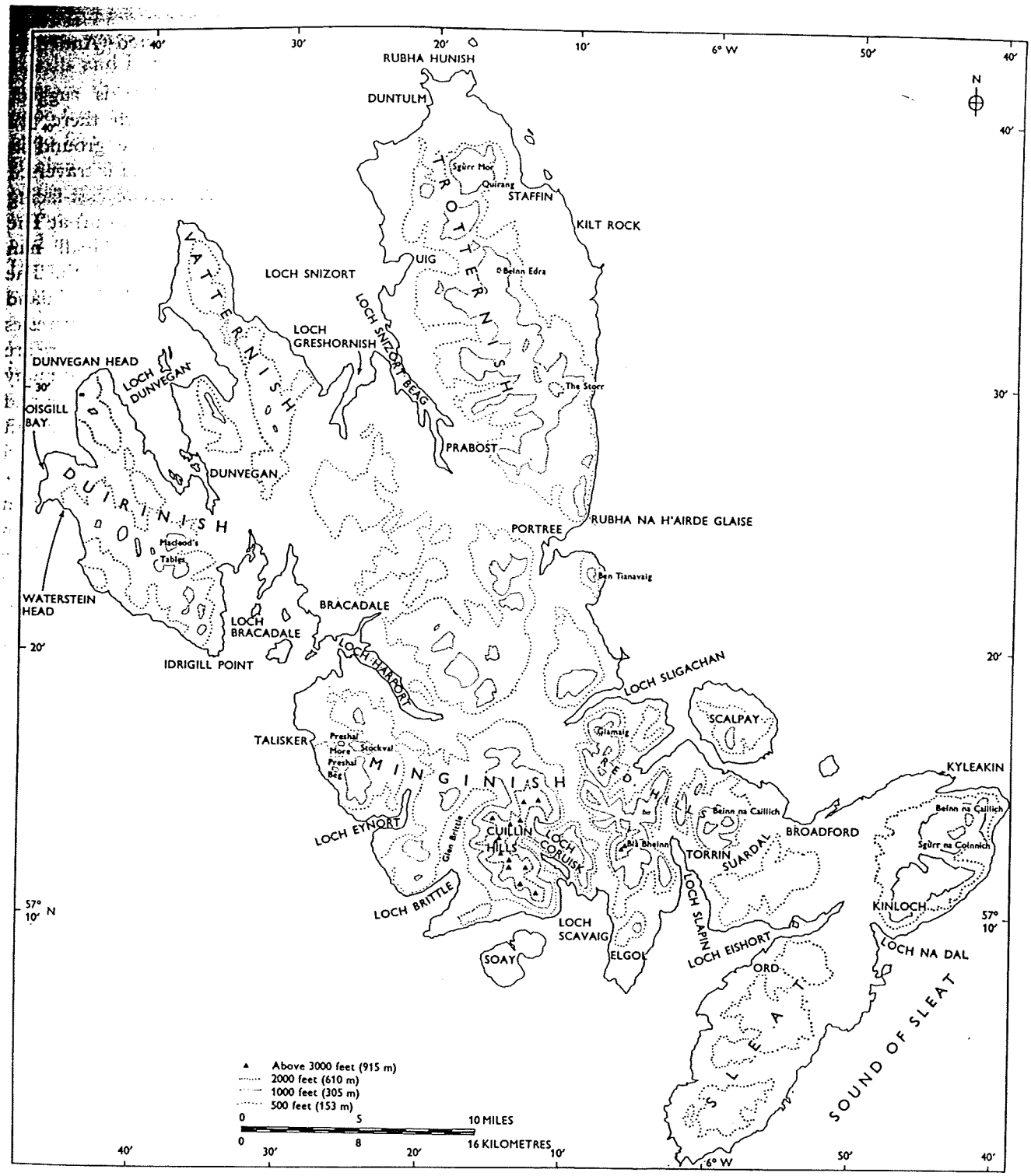


Figure 3. Topographical map of the Isle of Skye, with contours at 500 feet (153 m), 1000 feet (305 m), 2000 feet (610 m), and 3000 feet (915 m).

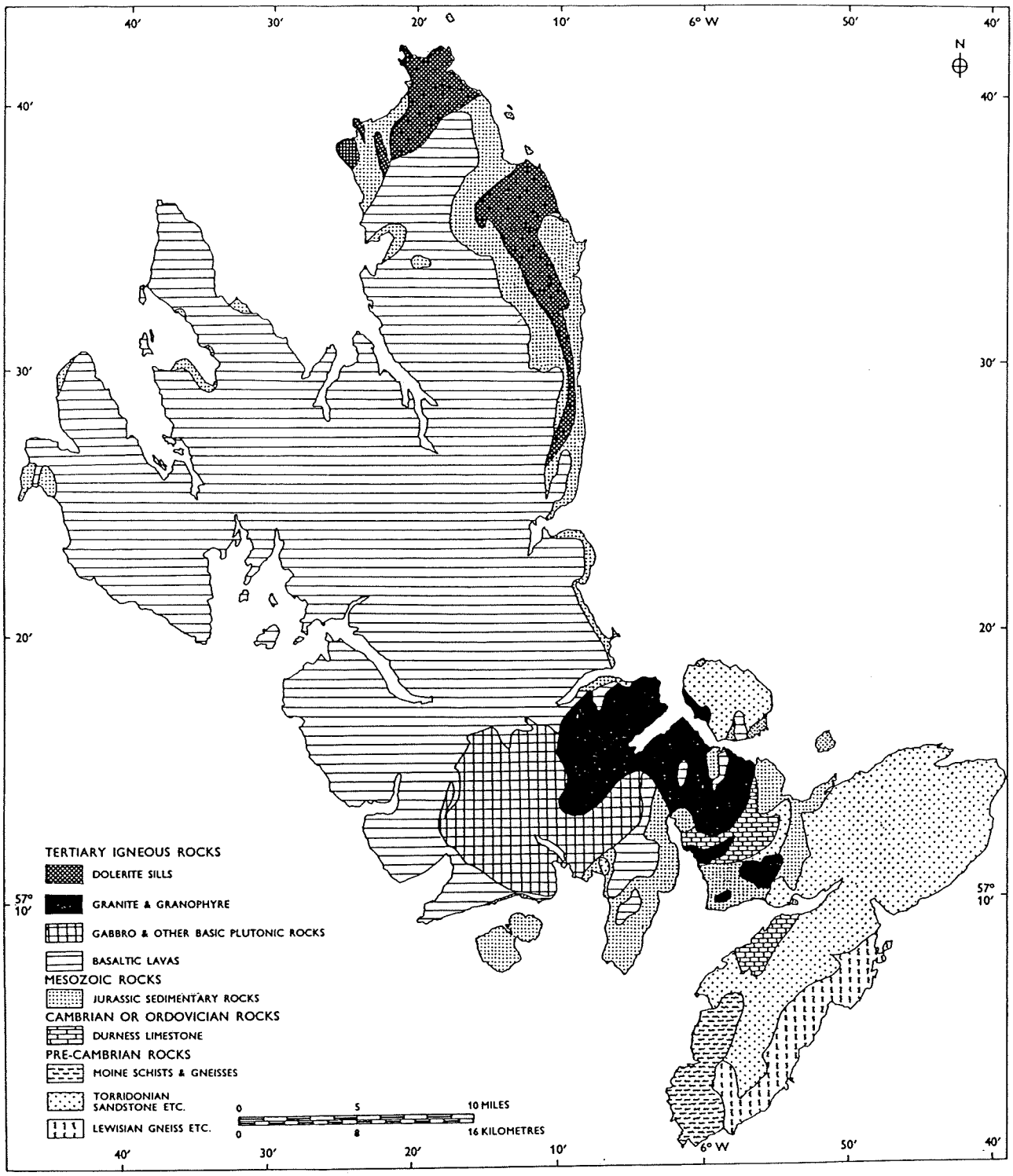


Figure 2. Simplified geological map of the Isle of Skye.

Present-day flora

CHECK LIST OF THE FLORA OF SKYE AND RAASAY

Huperzia selago *Lycopodium selago* Fir Clubmoss
Among heather, and on rock ledges on moors. Locally common. Mont. All squares.

Lycopodiella inundata *Lycopodium inundatum* Marsh Clubmoss
Boggy edge of Loch Meodal, Sleat, 1979. Rare. Con(N). 61 only.

Lycopodium annotinum Interrupted Clubmoss.
Two moorland sites on Scalpay, 1969, confirming 1937 record. Rare. Mont. 53, 63.

L. clavatum Stag's-horn Moss
Isolated patches on moors. Very local. Con(N). 15, 24, 32, 33,35,44-47, 52, 60-62

Diphasium alpinum *Lycopodium alpinum* Alpine Clubmoss.
In mountain grassland. Storr-Quiraing ridge; Red Hills; Cuillin; etc. Locally common. ArcAlp. 24, 41-47, 51-53, 62, 71, 72.

Selaginella selaginoides Lesser Clubmoss
Damp places on moors and hills. Locally common. ArcAlp. All squares.

Isoetes lacustris Quillwort
Submerged in stony lochs. Locally plentiful. Atl(N). 32-35, 42-47, 51, 53, 55, 60-63, 72.

***I. setacea** *I. echinospora* Quillwort
Submerged in more peaty lochs. Rare- or overlooked? Atl. 25 only.

Equisetum hyemale Dutch Rush, Rough Horsetail
Wet moorland, stream banks. Rare. Cont. 26, 41, 45, 55.

E. x trachyodon = E. hyemale x variegatum Mackay's Horsetail
Banks of R. Hinnisdal, 1974. Rare. Un. 35, 45.

E. variegatum Variegated Horsetail
Damp ground, An Garbh-choire, 1978. Old record in 36 requires confirmation. Mont. 36, 41.

E. fluviatile Water Horsetail
In lochs and ditches. Locally common. All except 23, 63, 65, 72.

E. palustre Marsh Horsetail
Wet places. Common. All except 23, 63, 65.

E. x font-queri = E. palustre x telmateia
Damp ground and ditches, both sides of Staffin road, along two mile stretch. Locally plentiful. Un. 55, 56.

E. sylvaticum Wood Horsetail
Damp places on moorland, and also arable ground. Locally common. Cont. All except 34, 37, 63, 65, 71.

E. pratense Shady Horsetail
Damp grassy banks, often by burns. Rare. Con(N). 25, 35, 44-47, 55, 56.

E. arvense Field Horsetail
In drier places than above. Locally common. All except 41, 63, 65, 71.

E. x litorale = E. arvense x fluviatile
Rare-or overlooked? Un. 46, 47.

E. x rothmaleri = E. arvense x palustre
New to British Flora, 1971. Ditches at Kilmaluag. Rare. Un. 47 only.

E. telmateia Great Horsetail
Most records from Trotternish, on Jurassic rock. Locally common. Atl(S). 24-26, 44-47, 54-56.

Osmunda regalis Royal Fern
Stony and peaty edges of lochs; rocky stream banks; sea-cliff ledges. Local-commoner in S. Skye. Atl. 15, 26, 33, 41, 42, 50-52, 60-63, 72. Planted in 24, 35, 43.

Hymenophyllum tunbrigense Tunbridge Filmy-fern.
Damp, shady rocks, usually in woodland and wooded ravines. Tokavaig woods; Kyleakin; Raasay; etc. Atl (S). 50, 53, 60, 61, 71, 72.

H. wilsonii Wilson's Filmy-fern.
Damp rocks, mossy boulders, tree trunks—in less shade than above. Locally plentiful. Atl. All except 23, 36, 55, 63, 65.

Pteridium aquilinum Bracken
Heaths, woodland and former grassland. Common. All squares.

Cryptogramma crispa Parsley Fern
Scattered plants in scree and among boulders on hills. Locally plentiful, Red Hills; very rare, Storr. ArcAlp. 41, 42, 45, 52-54, 62, 71, 72.

Blechnum spicant Hard Fern
Moorland, and rock ledges on hills. Common. Atl. All squares.

Asplenium scolopendrium *Phyllitis scolopendrium* Hart's-tongue Fern
Occasional; frequent in areas of Jurassic, or Cambrian limestone, rock. Atl. All except 23, 25, 33, 37, 42, 43, 46, 63, 65.

A. adiantum-nigrum Black Spleenwort
Rocks and walls. Common. Atl. All squares.

A. marinum Sea Spleenwort
Rock crevices and sea cliffs. Missing from areas where rivers make sea-lochs less saline, e.g. upper arms of Loch Snizort. Local. Atl. All except 43-45, 63, 65.

A. trichomanes agg. Maidenhair Spleenwort
On rocks and walls. All squares. Check for ssp. **quadrivalens** (42, 45 only) as most records in agg. may be this.

A. viride Green Spleenwort
Crevices of limestone or ultra-basic rocks. Locally plentiful in Suardal area; rare on Storr-Quiraing ridge. Mont. 26, 32, 33, 44-47, 51, 52, 55, 60-62, 72.

A. ruta-muraria. Wall-rue
Basic rocks and old walls. Occasional; frequent in limestone areas. 15, 24, 25, 32, 33, 35, 42, 44-46, 50-54, 56, 60-62, 72.

***A. septentrionale** Forked Spleenwort
Rock crevices. Old record from Hallaig, Raasay, not confirmed, 1969. Con(N). 53 only.

Athyrium filix-femina Lady-fern
Rough ground, woods, and among rocks on hills. All squares.

Cystopteris fragilis Brittle Bladder-fern
Rock crevices and walls. Widespread, usually on basic rock. All except 25, 37, 50, 56, 63, 65.

Dryopteris filix-mas agg. Male-fern
Damp hillsides, rocks and woods. Common. Atl. All squares.

D. pseudomas *D. borreri* Scaly Male-fern
Occurs in all squares, but records of **D. filix-mas** s.s. need revision.

D. abbreviata Mountain Male-fern
Mountain scree—Cuillin; Blaven; Quiraing. Very local. ArcAlp. 42, 46, 51, 52, 62, 71.

D. lanceolatocristata *D. spinulosa* Narrow Buckler-fern
Wet woods and heaths. Rare. 25, 37, 44, 53, 61, 72.

D. austriaca *D. dilatata* Broad Buckler-fern
Shady rock ledges, boulder scree, woods. Local. All except 35, 36, 56, 63, 65.

D. expansa *D. assimilis* Northern Buckler-fern
Wall of Dun Fiadhairt, near Dunvegan, 1971. Elsewhere? ArcAlp. 25, 53.

D. aemula Hay-scented Buckler-fern
Woods and shady rocks. Local. Atl(S). 14, 24, 26, 32, 33, 37, 41, 43.

Polystichum aculeatum Hard Shield-fern
Rock crevices and boulder scree. Frequent, but more plentiful on limestone or ultra-basic rock. Atl. All except 15, 34, 37, 56, 65.

P. x bicknellii = P. aculeatum x setiferum
Foot of old wall, Torrin, 1976. Un. 52 only.

P. lonchitis Holly Fern
Basic rock crevices and boulder scree. Blaven (comparatively frequent); Storr (rare); Quiraing; Suardal; Raasay. ArcAlp. 45-47, 51-54, 61, 62.

Oreopteris limbosperma *Thelypteris oreopteris* Mountain Fern
Rough grassland, scree, etc., not confined to mountains. Common. Atl. All squares.

Phegopteris connectilis *Thelypteris phegopteris* Beech Fern
Damp rock ledges and woods. Local. Con(N). All except 37, 56, 65.

Gymnocarpium dryopteris *Thelypteris dryopteris* Oak Fern
Rocks, scree, damp woods. Rare. Con(N). 24, 26, 34, 42, 45, 46, 50-54, 60, 61, 71, 72.

Polypodium vulgare agg. Polypody
On rocks and trees. All squares. Records need separating into ssp. **vulgare** (33, 41, 44, 45, 51, 60-62) and possible **P. interjectum** (51, 52).

Botrychium lunaria Moonwort
Easily overlooked in dry turf (including roadside verges), and scree on hills. Still not recorded from Sleat. Con(N). 14, 15, 24, 25, 33, 36, 42-47, 50-55, 62.

Ophioglossum vulgatum Adder's-tongue
In limestone grikes in Allt nan Leac valley. Rare. Should be looked for in other limestone areas. Con(S). 51.

Juniperus communis ssp. **communis** Juniper
Erect, but growing downwards, on sea-cliff at Rigg; also on Beinn Bhuidhe. Rare. 55, 72.

J. communis ssp. **nana** Dwarf Juniper
Procumbent on stony ground, or cliff ledges on hills; also on sea cliffs. Local. ArcAlp. All except 34, 36, 37, 44, 45, 54, 63, 65.

Caltha palustris Marsh-marigold
Common in marshy ground, with ssp. **minor** on mountains. All squares.

Trollius europaeus Globeflower
In damp grassland, and on rock ledges on hills. Locally plentiful. Mont. All except 23, 35, 37, 63, 65.

Anemone nemorosa Wood Anemone
Woodland, but more often in open grassland. Local. All except 15, 23, 26, 37, 63, 65.

Ranunculus acris Meadow Buttercup
Common in grassland. All squares.

R. repens Creeping Buttercup
A vigorous arable weed. Common. All except 41, 65.

R. bulbosus Bulbous Buttercup
Thought to be introduced (Dunvegan, Skeabost), until found in dune grassland, Glen Brittle. Rare. 24, 34, 42, 44.

R. auricomus Goldilocks Buttercup
In hazel scrub, Staffin, 1976. Rare. 46 only.

R. flammula Lesser Spearwort
Common. All squares. Critical work is needed to see whether spp. **minimus** occurs in exposed places near the sea; ssp. **scoticus** is recorded from loch shores in 42, 43.

R. hederaceus Ivy-leaved Crowfoot
On wet muddy tracks, or in shallow water, Talisker area. Rare. Atl. 32, 33, 41, 50.

R. trichophyllus Thread-leaved Water-crowfoot
Edges of stream joining Loch Fada and Loch Leathan. Plentiful or completely absent according to water level. Cont. 45 only.

R. ficaria Lesser Celandine
Common. So far most plants examined have been ssp. **ficaria**; ssp. **bulbifer** only in 'big house' gardens (24, 35, 44). All squares.

Thalictrum alpinum Alpine Meadow-rue
Damp rock ledges and scree; damp grass, edges of burns. Locally common in hilly areas. ArcAlp. 14, 15, 24, 32, 33, 41-47, 52-55, 61-63, 71, 72.

T. minus ssp. **arenarium** Lesser Meadow-rue
Dune grassland at Glen Brittle. Rare due to lack of suitable habitat elsewhere. Atl. 42 only.

Nymphaea alba ssp. **alba** White Water-lily
Not in all lochs. Locally common. Atl. 25, 26, 33, 34, 41-44, 47, 50-54, 61, 62, 71, 72.

N. alba ssp. **occidentalis** Lesser White Water-lily
Three lochs in S Skye, and may occur in others. Atl. 41, 50, 62.

Nuphar lutea Yellow Water-lily
Loch A'Mhuilinn, Scalpay. Introduced? Record for 34 requires confirmation. 34, 62.

*Papaver dubium Long-headed Poppy
Introduced? Casual only? 47, 52, 61.

Meconopsis cambrica Welsh Poppy
Garden escape in various places, including Portree and Dunvegan. Int. 15, 24, 35, 44, 51-53, 60.

Corydalis claviculata Climbing Corydalis
Woods and among boulders in shade, Sleat. Rare. Atl. 60, 71, 72.

C. lutea Yellow Corydalis
Established on wall of Episcopal Church (now Parish Centre), Portree. Int. 44 only.

Fumaria capreolata Ramping-fumitory
Garden weed for many years in Kyleakin. Appeared in Aird, Sleat, 1978. Int. 50, 72.

F. muralis ssp. boraei Common Ramping-fumitory
Croft weed, Uigshader. Int. 44 only.

F. officinalis Common Fumitory
Arable weed, Intermittent at Torrin; also Tormore, Sleat. Rare. 52, 60.

Brassica napus Rape; and Turnip or Swede
Grown as fodder crop—probably casual only. Int. 24, 34.

Sinapis arvenis Charlock
Arable weed, locally common. 24, 26, 35, 36, 47, 50, 52, 53, 60, 62, 72.

*S. alba White Mustard
Uncommon. Records mainly from S Skye. Int. 45, 47, 51, 62, 72.

Raphanus raphanistrum Wild Radish
Arable weed, widespread but not common. Int. 14, 15, 24, 25, 33, 34, 42, 43, 45, 50, 52, 53, 60, 62, 71.

Cakile maritima Sea Rocket
Glen Brittle beach; Camas Ban, Portree. Rare due to lack of suitable habitat. Atl. 42, 44.

Lepidium heterophyllum *L. smithii* Smith's Pepperwort
Dry banks and road verges. Rare. Atl(S). 33, 42, 45.

*Thlaspi arvense Field Penny-cress
Soay? 41 only.

Capsella bursa-pastoris Shepherd's-purse
Fairly common arable weed. Con(S). All except 23, 25, 37, 41, 46, 54-56, 63, 65.

Cochlearia officinalis Common Scurvygrass
Rocks and cliffs by the sea; salt-marshes; mountains. Common. Atl. All squares. Ssp. need critical revision. Ssp. **alpina:** wet places on hills, Cuillin, Trotternish. Mont. 42, 45, 46.

C. scotica Scottish Scurvygrass
Maritime only. Mauve flowers. Overlooked? Endemic. 14, 15, 25, 26, 32, 41, 45, 46, 50.

*C. danica Danish Scurvygrass
Maritime only. Rare-or under-recorded? Raasay; Scalpay; two records on Skye. Atl. 53, 54, 56, 62, 63.

Subularia aquatica Awlwort
Easily overlooked in base-poor lochs and pools. Local. Con(N). 14, 32, 33, 41-44, 46, 60-62, 72.

Draba norvegica Rock Whitlowgrass
Discovered in 1969 on rock ledges below Sgurr nan Gillean. 1964 record from Coire na Creiche confirmed 1975. Rare. ArcSA. 42 only.

D. incana Hoary Whitlowgrass
Scattered plants on dry basic rock ledges and in fine scree. Local. ArcAlp. 14, 15, 25, 26, 32, 33, 36, 42, 44-47, 52-55.

Erophila verna Common Whitlowgrass
Locally plentiful on grassy knolls grazed by sheep, or on dry paths. Often flowers in January. 24, 25, 33, 35, 36, 42, 44, 45, 47, 51, 60, 62, 71, 72.

Cardamine pratensis Cuckooflower; Lady's-smock
Common in wet places. All squares.

C. flexuosa Wavy Bitter-cress
Damp shady places. Common. Atl. All except 26, 37, 41, 63, 65.

C. hirsuta Hairy Bitter-cress
Less common, on bare ground, but can become an annoying arable weed. Atl. 14, 15, 24, 25, 32, 34-36, 41, 44-47, 51-55, 61, 62, 72.

Barbarea vulgaris Winter-cress
Arable weed, Portree and Carbost. Casual, Prabost. Int. 44, 45, 72.

B. intermedia Medium-flowered Winter-cress
Garden weed in Portree. Int. 44 only.

Cardaminopsis petraea Northern Rock-cress
Frequent on rock ledges and among scree,Storr-Quiraing ridge; Cuillin; Blaven. Scarce on Red Hills. ArcAlp. 41-47, 52-55, 62.

Arabis alpina Alpine Rock-cress
On two wet rock ledges in Coire na Creiche, Cuillin hills. Rumours of other stations so far unconfirmed. ArcAlp. 42 only.

A. hirsuta Hairy Rock-cress
Scattered plants on rock ledges, not confined to limestone. Rare. Con(S). 26, 33, 36, 45-47, 51-55, 61, 62.

Nasturtium officinale *Rorippa nasturtium-aquaticum* Water-cress
Locally plentiful in streams and springs. 14, 15, 24, 25, 33, 35, 37, 41, 43-46, 50-53, 61, 62.

N. microphyllum *R. microphylla* One-rowed Water-cress
Needs separating from above. Seeds in one row instead of two, in each cell. 36, 60.

Alliaria petiolata Hedge Garlic, Garlic Mustard
Shady gardens. Dunvegan; Corry Lodge, Broadford. Introduced? 24, 34, 36, 62.

Sisymbrium officinale Hedge Mustard
Waste ground, Kyleakin. Rare. 62, 72.

Arabidopsis thaliana Thale Cress
Rare on dry rock ledges and in fine scree. Garden weed in Kyleakin. Con(S). 15, 24, 25, 33, 35-37, 42, 44-47, 50, 51, 53, 54, 60-62, 72.

Viola riviniana Common Dog-violet
Common. All squares.

V. palustris Marsh Violet
Bogs and damp grassland. Locally common. Con(N). All squares.

V. tricolor Heartsease, Wild Pansy
Arable weed, locally plentiful. 14, 15, 24, 25, 34-36, 44, 45, 47, 50, 53, 62, 71, 72.

V. arvensis Field Pansy
Uncommon in cultivated ground. 15, 24, 42, 43, 45, 50, 61, 72.

Polygala vulgaris Common Milkwort
Leaves alternate, plant larger and less common than *P. serpyllifolia,* often on basic soils. Atl. All squares.

P. serpyllifolia Heath Milkwort
Lower leaves opposite. Pink and white forms occur as well as dark and light blue. Atl. All squares.

Hypericum androsaemum Tutsan
Scattered plants on rock and cliff ledges, and in woods. Atl(S). 24, 26, 32, 33, 41-44, 50-54, 60-63, 71, 72.

H. tetrapterum Square-stalked St John's-wort
Most records from marshy ground near the sea, and on Jurassics or gneiss. Atl. 14, 24-26, 32, 33, 35-37, 44, 47, 51, 54-56, 60, 61.

***H. humifusum** Trailing St John's-wort
Recorded in 24, 33, 50, in Skye; and near Balachuirn, Raasay, 54. Rare. Atl.

H. pulchrum Slender St John's-wort
Roadside banks and moorland. Common. Atl. All squares.

***H. elodes** Marsh St John's-wort
Loch Gauscavaig, Sleat; and could be elsewhere, on more acid soils. Atl. 50 only.

Elatine hexandra Waterwort
Rare on fine gravel under water in lochs in Talisker area, 1973. Three lochs in NE Skye added since. Easily overlooked. Atl. 32-34, 46.

Silene dioica Red Campion
Sea cliffs, mountain ledges, river banks, woods. Very local. All except 63, 65.

S. dioica ssp. **zetlandica**
Confirmation that this occurs is required. Possible specimens seen at Scorrybreck and Flodigarry. 44, 47.

S. alba White Campion
Croft casual, Prabost, 1970-72; perhaps also elsewhere. 36, 45, 60.

***S. vulgaris** Bladder Campion
North end of Skye, and Clachan, Raasay. Mistake? 47, 53.

S. vulgaris ssp. **maritima** Sea Campion
Sea cliffs, shingle, and mountain ledges. Local. Atl. All except 60, 63, 65, 71.

S. acaulis Moss Campion
Mountains and sea cliffs. Descends to sea level at Rubha Hunish, 47. Locally plentiful. ArcAlp. 14, 15, 24-26, 41-47, 52-55.

Lychnis flos-cuculi Ragged-Robin
Wet places, locally common. All squares.

Cerastium arcticum Arctic Mouse-ear
Wet rock ledges and scree, Cuillin hills; wet stony ground, Storr. Rare. ArcSA. 42, 45.

C. fontanum *C. holosteoides* Common Mouse-ear
Common. All squares.

C. glomeratum Sticky Mouse-ear
Common arable weed. All except 25, 37, 41-43, 46, 63, 65.

C. diffusum *C. atrovirens* Dark-green Mouse-ear, Sea Mouse-ear
Records mainly from west side of island—overlooked elsewhere? Atl. 14, 24-26, 32, 33, 35, 36, 46, 47, 60.

***C. semidecandrum** Little Mouse-ear
Dry, sandy soils. Rare, or overlooked? Con(S). 50, 60.

Stellaria media Common Chickweed
Weed of cultivated ground, dominant in wet summers. All except 23, 37, 41, 46, 63, 65, 71.

S. holostea Greater Stitchwort
Grassy banks and scrub woodland. Very local. 24, 25, 33, 34, 36, 41, 44-46, 50, 51, 53, 54, 60-62, 71, 72.

S. graminea Lesser Stitchwort
Isolated patches in grassland. Rare. 24, 26, 33-36, 45, 46, 50, 52, 53, 61, 71, 72.

S. alsine Bog Stitchwort
Beside burns and springs, and in ditches. Locally common. All except 41, 56, 63, 65

***Sagina apetala** Annual Pearlwort
Not common. Possibly confused with *S. procumbens.* Atl. 33, 35, 47, 51, 61.

S. maritima Sea Pearlwort
A seashore plant, probably under-recorded. Atl(S). 15, 24, 33, 34, 44, 51, 52.

S. procumbens Procumbent Pearlwort
Paths, bare ground, grassy banks. Common. All squares.

S. saginoides Alpine Pearlwort
Rare in fine scree, Storr and Quiraing areas. ArcAlp. 45-47.

S. subulata Heath Pearlwort.
Dry gravelly places on moorland and hills. Local. Atl. 14, 15, 24, 25, 32-36, 42, 44-47, 51, 53-56, 60-62.

S. nodosa Knotted Pearlwort
Wet rocks, gravel, or grass near the sea. Easily overlooked when not in flower. Con(N). 33, 36, 42, 51, 61, 62.

Cherleria sedoides Mossy Cyphel
Cushions in rocky ground on Storr-Quiraing ridge; gravel at sea level, mouth of R. Haultin, 45. Curiously not yet found on the Cuillin. Alp. 45, 46, 55.

Honkenya peploides Sea Sandwort
In sand, and sandy shingle. Local. Atl(N). 14, 24-26, 33, 34, 36, 37, 42, 44-46, 50, 51, 53, 60-62, 72.

Moehringia trinervia Three-nerved Sandwort
Woodland, Balachurn, Raasay, 1979. Confirms 1930s record for Raasay, but different locality. Rare. Un. 54 only.

Arenaria serpyllifolia Thyme-leaved Sandwort
Ord, 61; garden weed, Kyleakin, 72. Rare. 24, 33, 61, 72.

A. balearica Balearic Pearlwort, Mossy Sandwort
Naturalised near Raasay House; also at Kilmarie, Strathaird; and perhaps other 'big house' gardens. Int. 51, 53.

Spergula arvensis Corn Spurrey
A common and infuriating weed of cultivated ground. All except 23, 37, 41, 54, 56, 63, 65.

Spergularia rubra Sand Spurrey
Gravel by bridge, Kinloch, 71. Introduced? Rare. 36, 47, 62, 71.

S. media Greater Sea-spurrey
Salt-marshes. Local. Needs separating from *S. marina*. Alt. 24, 33-35, 44, 45, 51-53, 60, 61, 71, 72.

S. marina Lesser Sea-spurrey
Less common—or overlooked? Check both sets (petals and seeds). Con(S). 37, 43, 45, 60, 61, 71, 72.

Montia fontana Blinks
Common in wet places; can also be a garden weed. Ssp **fontana** and ssp. **variabilis** recorded in Perring (1968). Further work required. Atl. All squares.

M. sibirica Claytonia, Pink Purslane
In estate woodland—Dunvegan, Portree, Tote, Kilmarie, Raasay, and elsewhere. Int. 15, 24, 25, 44, 46, 51, 53, 60.

***Chenopodium album** Fat-hen
Waste places and shingle. Probably under-recorded. 35, 41-46, 51, 52, 61, 62, 72.

Beta maritima Sea Beet
2-3 plants on Glen Brittle beach, 1972. Casual? Atl(S). 42 only.

Atriplex hastata Hastate Orache
Seashores on sand, shingle and mud. Skye specimens do not match those from further south. More work is required. Locally plentiful. 24, 33-36, 43, 45, 47, 50-53, 62.

A. glabriuscula Babington's Orache
Easily confused with above, perhaps less common. Atl. 14, 15, 24-26, 32-36, 44, 45, 50-53, 60-62.

A. patula Common Orache
The least common! Essential to sort out all three. *A. patula* is a weed of cultivated ground. 35-37, 41, 44, 47, 61, 62, 72.

A. praecox
Small reddish plants among shingle, low down on the beach. New to British Flora, 1975 (W. Ross and W. Sutherland). Skye 1978. Local. ArcSA. 34, 36, 45, 52, 53, 61, 71.

Suaeda maritima Annual Sea-blite
In salt-marshes and on seashores, less common where sea is 'freshened' by river water. Con(S). 24, 34, 35, 44, 45, 51-53, 60-62, 71, 72.

Salsola kali ssp. **kali** Saltwort
Camas Ban, Portree. Rare due to lack of sandy shores. Atl. 44 only.

Salicornia europaea Glasswort
In most salt-marshes. Local. Con(S). 24, 45, 51-53, 60-62, 71, 72.

Linum catharticum Fairy Flax
Grassland, moorland, and rock ledges on hills. Common. All squares.

Geranium dissectum Cut-leaved Crane's-bill
Occasional in cultivated and waste ground. 24, 34-36, 44, 50-53, 60-62, 71, 72.

G. molle Dove's-foot Crane's-bill
Occasional in cultivated or sandy ground. 24, 33-36, 44, 45, 50, 51, 53, 60-62, 71, 72.

G. lucidum Shining Crane's-bill
Among old wall debris, Scorrybreck, Portree; walls in Torrin and Broadford; Raasay. Rare. Atl. 52-54, 62.

G. robertianum Herb-Robert
Woods, rock ledges, scree. Local. All except 63, 65.

***Erodium cicutarium** Common Stork's-bill
Arable fields and waste places on sandy soil. Mistake? Cont. 26, 36.

Oxalis acetosella Wood-sorrel
Grassland, woodland, and among rocks and boulders on hills. Reaches summit of Storr (2360′), and c. 2700′ in Coire na Creiche, 42. All squares.

Ilex aquifolium Holly
Found wild on rock ledges, in woods, and along rocky stream sides. Local, commoner in S Skye. Also planted. Atl. 24, 34-36, 41-43, 47, 50-54, 60-63, 71, 72.

Ulex europaeus Gorse, Whin
Rough grassy places, perhaps sometimes planted. Local. Atl. All except 23, 41, 46, 50, 54, 55, 63, 65.

Cytisus scoparius *Sarothamnus scoparius* Broom
Widely scattered, often solitary plants, usually near houses. Introduced? 15, 24, 34-36, 42-44, 47, 52, 53, 60-62, 71, 72.

***Medicago lupulina** Black Medick
Grassland. Casual only? 36, 52, 53.

Trifolium dubium Lesser Trefoil
Roadsides and grassy places. Occasional. Atl. All except 23, 32, 37, 41, 52, 63, 65.

T. repens White Clover
Arable grassland. Common. All squares.

T. medium Zigzag Clover
Grassy places; locally common. 14, 15, 24, 26, 36, 37, 45-47, 51, 52, 60.

T. pratense Red Clover
Grassy places, and often sown in hay mixtures. Common. All squares.

Anthyllis vulneraria Kidney Vetch
Road verges, moorland, seaside and mountain cliff-ledges. Local. Atl. All except 32, 60, 63, 65, 71. ssp. **lapponica**, ArcSA. 44, 54.

Lotus corniculatus Common Bird's-foot-trefoil
Roadsides, grassy places, moors. Common, All squares.

L. uliginosus Marsh Bird's-foot-trefoil
Damp places. Very local. Atl. 14, 15, 24, 25, 33-36, 42, 44, 45, 51-53, 56, 60-62.

Vicia hirsuta Hairy Tare
Casual at Prabost, 1957; waste ground, Kyleakin, 1978. Introduced? 24, 25, 45, 51, 53, 62, 72.

V. cracca Tufted Vetch
Common in grassy places, and as an arable weed. All except 41, 63, 65.

V. orobus Upright Vetch, Wood Bitter-vetch
On rock and cliff ledges in NW Skye; roadside bank at Aird, Sleat. Rare. Atl. 14, 23-26, 31, 60.

V. sylvatica Wood Vetch
Most records so far from cliffs and gullies near the sea. Missing from Raasay. Rare. Con(N). 24-26, 41, 51, 55, 56, 61.

V. sepium Bush Vetch
Grassy places and rock ledges. Common. All squares.

V. sativa ssp. **nigra** *V. angustifolia* Narrow-leaved Vetch
Gardens, road verges. Rare. Introduced? 52, 62, 71, 72.

Lathyrus pratensis Meadow Vetchling
Arable grassland. Common. All except 41, 63, 65, 71.

L. montanus Bitter-vetch
Grassy banks and rock ledges—the first vetch to flower. Common. Atl. All squares.

Spiraea salicifolia Willow Spiraea, Bridewort
Garden escape. Introduced. 36, 44, 51.

Filipendula ulmaria Meadowsweet
Wet grassland, ditches. Common. Con(N). All squares.

Rubus saxatilis Stone Bramble
Steep banks, rock ledges on moors and hills. Local. Con(N). All except 37, 56, 65.

R. idaeus Raspberry
Edges of woods and grassy banks. Locally plentiful. All except 23, 37, 41, 56, 63, 65.

R. fruticosus agg. Bramble, Blackberry
Woodland, scrub, roadside banks and verges. Local; commoner in S. Skye, and in woodland at Dunvegan. (agg. in all except 23, 37, 43, 56, 63, 65.) Careful investigations of subspecies essential: the following have been confirmed by experts—

R. hebridensis 24, 35.
R. nemoralis 24, 35, 44, 52, 60, 62, 71, 72.
R. lindleianus 60, 71.
R. septentrionalis 24, 35, 60, 62, 71.
R. polyanthemus 24, 42, 46, 52, 60, 62, 71.
R. mucronulatus 24, 72.
R. radula 24, 25, 35, 36, 44, 45.

R. laciniatus
Garden escape near Orbost, and Scorrybreck, Portree. Int. 24, 44.

Potentilla palustris Marsh Cinquefoil
Marshy ground, and wet margins of lochs. Locally plentiful. Con(N). All except 23, 41, 54, 63, 65.

P. sterilis Barren Strawberry
Noticeable in dry grassy places in the spring; not so obvious later on. Atl. All except 15, 26, 36, 37, 55, 63, 65.

P. anserina Silverweed
Waste ground, shingle, and sandy grassland. Common. All squares.

P. erecta ssp. **erecta** Tormentil
Very common on moorland, hill grassland, and open woodland. All squares. Ssp. **strictissima** has been recorded in several squares, and probably occurs in all.

P. reptans Creeping Cinquefoil
Marble quarry road, Suardal, 62. Probably introduced. 24, 56, 62.

Sibbaldia procumbens Sibbaldia
Grassland and scree on Trotternish ridge between Ben Edra and Bealach Chaiplin, 46. Also below Sgurr Mor, 47. Storr and Cuillin records need confirmation. ArcAlp.

Fragaria vesca Wild Strawberry
Dry grassy banks and rock ledges, most plentiful on ultra-basics and limestone. Local. All except 32, 37, 63, 65.

Geum urbanum Wood Avens
Restricted to areas with woodland or scrub to provide shade. 14, 24, 34-36, 41, 42,44, 47, 50, 51, 53, 54, 60-62, 71, 72.

G. rivale Water Avens
Wet grassland, ditches, and wet rock ledges on hills. Local. All squares.

***G. rivale** x **urbanum** = **G. x intermedium**
Wood S. of Portree, 44; and perhaps elsewhere, if parents occur together.

Dryas octopetala Mountain Avens
Locally plentiful on limestone at Suardal, and Camas Malag, S. of Torrin. Also scattered patches on Dunvegan Head and Ben Tianavaig (both basalt); and E side of Raasay (limestone). ArcAlp. 15, 47, 51, 53-55, 61, 62.

Agrimonia eupatoria Agrimony
Occasional plants in grassland, usually near the sea. Cont. 24, 25, 33, 36, 41, 44, 45, 51, 53-55, 61.

Alchemilla alpina Alpine Lady's-mantle
Mountain grassland, rocks and scree; descends to sea level at Torrin, 52. Locally common. ArcAlp. All except 14, 15, 23, 34, 35, 37, 50, 60, 63, 65.

A. filicaulis ssp. **vestita**
Basic grassland and hills. Local. Con(N). 15, 24, 25, 33, 35, 36, 45-47, 51-55, 61, 62, 71.

A. filicaulis ssp. **filicaulis**
Hill and mountain grassland. Less common than above. Mont. 15, 25, 34, 36, 45, 46, 53, 54, 62, 72.

A. xanthochlora
Grassland at lower levels. Still under-recorded. Missing from Raasay? Atl. All except 32, 37, 41, 50, 53, 60, 63, 65, 72.

A. glabra
Grassland, rock ledges. Common. The easiest to identify of the subspecies. Con(N). All except 60, 63, 65.

A. wichurae
Recorded from two places in the Storr area, on wet rock ledges. Rare. ArcSA. 45 only.

Aphanes arvensis Parsley-piert
Weed of cultivated and waste ground. Probably under-recorded, as *A. arvensis* is difficult to separate from *A. microcarpa* when not in fruit. Con(S). 24, 25, 34-36, 44, 46, 53, 60, 62, 71.

A. microcarpa Slender Parsley-piert
Arable weed on croftland, Prabost, 45; and elsewhere. Atl. 14, 24, 33, 35, 45, 51, 60, 72.

Acaena microphylla New Zealand Bur
Naturalised near the pier and along the old railway track, Raasay. Introduced. 53 only.

Rosa pimpinellifolia *R. spinosissima* Burnet Rose
Rough grassland, rock ledges; most plentiful on limestone. Local. Appears to be missing from Trotternish north of Portree, and from Raasay. Atl. 14, 15, 23-25, 32, 33, 41-44, 50-53, 60-62.

R. rugosa Japanese Rose
Naturalised in several places, including shingle at Bornaskitaig, 37. Int.

R. canina agg. Dog Rose
Scrub woodland, grassy banks. Under-recorded. Missing from Trotternish? Atl. 14, 15, 23-26, 33-36, 50-54, 60-62, 71, 72.

R. sherardii
As above—more work required. 44, 50, 52, 61.

R. villosa agg. Downy Rose
Probably commoner than records suggest. Con(N). 14, 15, 24, 25, 33, 34, 36, 44, 45, 50-54, 56, 61, 62, 72.

***R. rubiginosa** Sweet Briar
Introduced? 47 only.

R. canina var. **sylvularum; R. sherardii** var. **suberecta; R. villosa** var. **mollis,** have all been recorded and identified by experts; also several hybrids, and at least two new varieties. Much more work required!

Prunus spinosa Blackthorn
Probably always planted, as it is at Flodigarry, Duisdale, and in Raasay. Rare. 47, 53, 71.

P. padus Bird Cherry
Occurs as single specimens in woodland. Rare. Con(N). 24, 26, 32, 41-45, 50-53, 60-63, 71, 72.

Cotoneaster simonsii Himalayan Cotoneaster
Naturalised on cliffs S of Kilmarie. Int. 51 only.

C. microphyllus Small-leaved Cotoneaster
Naturalised on cliff (Jurassic) at Scorrybreck, Portree; also at Camas Malag, S of Torrin. Planted elsewhere. Int. 44, 51.

Crataegus monogyna Hawthorn
Commoner in areas with some woodland. All except 37, 54-56, 63, 65.

Sorbus aucuparia Rowan
Flourishes on rock ledges out of reach of sheep; more stunted where it has been eaten. The commonest wild tree. Con(N). All squares.

S. rupicola
On basic or limestone cliffs, Suishnish; Raasay. In woodland at sea level, Drinan. Rare. ArcSA. 51, 53.

Rhodiola rosea *Sedum rosea* Roseroot
On sea cliffs and on rock ledges on hills. Locally plentiful. ArcAlp. All except 34, 60, 63, 65.

Sedum anglicum 'English' Stonecrop
Rocks or stony places near the sea, and on hills. Local. Atl. All squares.

S. acre Wall-pepper, Biting Stonecrop
Sandy grassland and shingle. Stonework of Armadale pier; edge of shore at Fiskavaig, Glen Brittle, Camasunary. Very local. 33, 36, 42, 46, 47, 50, 51, 52, 60, 61, 71.

Saxifraga nivalis Alpine Saxifrage
Rare on rock ledges and among boulders, Storr and Quiraing areas. Even rarer on damp ledges high in Cuillin corries. ArcAlp. 42, 45, 46.

S. stellaris Starry Saxifrage
Storr-Quiraing hills, Red Hills, Cuillin and others. Locally common, springs and wet ledges. ArcAlp. 24, 32, 33, 42-46, 51-53, 55, 71, 72.

S. hypnoides Mossy Saxifrage
Dunvegan Head; Storr-Quiraing hills; Blaven group; etc. Not yet recorded from Cuillin. Locally plentiful. Atl(N). 14, 15, 24, 25, 32, 33, 36, 44-47, 52-55, 71.

S. aizoides Yellow Saxifrage
Wet sea cliffs; mountain scree, basic cliffs and river gravel. Local. ArcAlp. 24, 45-47, 51-56, 61, 62, 71, 72.

S. oppositifolia Purple Saxifrage
Locally common on rock ledges and stony ground, Storr-Quiraing hills; Blaven (also at sea level, head of Loch Slapin). Rare on Healaval Bheag and the Cuillin. Missing from Raasay? ArcAlp. 14, 15, 24-26, 42, 44-47, 51, 52, 54, 55.

Chrysosplenium oppositifolium Opposite-leaved Golden-saxifrage
Wet rocks, beside springs, or in marshy ground. Common. Atl. All squares.

Parnassia palustris Grass-of-Parnassus
Most records from Cambrian limestone (Suardal, Torrin, Tokavaig) or Jurassics (E side of Trotternish, E side of Raasay). Local. Con(N). 33, 44-46, 50-56, 60-62, 72.

Ribes spicatum Downy Currant
One or two bushes in boulder scree, Sgurr a'Bhagh, 25; Kingsburgh, 35; at least 100 plants below Vaterstein Head, in scree, 14. Rare. Con(N).

Drosera rotundifolia Round-leaved Sundew
Wet moorland and bog pools. Common. Con(N). All squares.

D. anglica Great Sundew
Wetter bogs. Less common. Atl. All except 26, 36, 37, 47, 60, 63, 65.

D. intermedia Oblong-leaved Sundew
Either much less common than *D. anglica*, or under-recorded. Atl. 15, 36, 50, 52, 55, 62.

***D. x obovata = D. rotundifolia x anglica**
"Sparingly on Raasay"—perhaps elsewhere. Atl. 53 only.

Lythrum salicaria Purple-loosestrife
Isolated patches in marshy ground. Roag; Portree; Braes, Torran, Raasay. Rare. 24, 44, 53, 54.

Epilobium parviflorum Small-flowered Willowherb
Rare in marshy ground. Cont. 42, 47, 53, 61.

E. montanum Broad-leaved Willowherb
Woodland, waste land, and rock ledges on hills. Common. All squares.

E. ciliatum *E. adenocaulon* American Willowherb
Waste ground near Druimfearn, 1978. Rare or overlooked? Int. 61 only.

E. adnatum Square-stemmed Willowherb
Waste ground, Portree, 1976. Overlooked elsewhere? Int. 44 only.

E. obscurum Short-fruited Willowherb
Stream banks, moist ground and rocks. Local. Atl. All except 23, 34, 41, 63, 65.

E. palustre Marsh Willowherb
Marshes, ditches, and bogs. Common. Con(N). All squares.

E. anagallidifolium Alpine Willowherb
Streams and springs, Storr-Quiraing hills; Ben Aslak, Sleat. Rare. ArcAlp. 45-47, 71.

E. alsinifolium Chickweed Willowherb
Streams, springs, or moist ledges in Storr-Quiraing hills; Cuillin; Blaven. Rare. ArcAlp. 42, 45-47, 52, 54, 55.

E. brunnescens *E. nerterioides* New Zealand Willowherb
Found on paths (Portree, and steps to Storr Lochs generating station); in quarries (Skerinish and Kyleakin); in scree on hills (Healaval Mhor, Belig). Local. Int. 23, 24, 32, 35, 43-47, 52-55, 71, 72.

E. angustifolium *Chamaenerion angustifolium* Rosebay Willowherb
In woodland-Dunvegan, Portree, Armadale. Also on sea cliffs. Locally plentiful. 14, 15, 24-26, 32, 33, 35-37, 42, 44, 47, 50, 51, 53-56, 60, 72.

Fuchsia magellanica Fuchsia
Introduced as a hedge plant, and naturalised in places.

Circaea lutetiana Enchanter's-nightshade
In shade of rock crevices (limestone) at An Leac, 41; and Lusa, 62. Estate woodland—Lynedale, Kilmarie, and Raasay. Locally plentiful. Cont. 35, 36, 41, 51-53. 60, 62, 71, 72.

C. x intermedia = C. alpina x lutetiana
Usually in shade of trees or rocks, but grows in shingle in several places. Commoner than above. Atl. 24, 25, 32, 33, 36, 44-46, 50-56, 60-62, 71, 72.

***C. alpina** Alpine Enchanter's-nightshade
Recorded from Raasay and Skye, but now thought an error for *C. intermedia*. Check stigma and fruit.

***Myriophyllum spicatum** Spiked Water-milfoil
Prefers base-rich water. 14, 47.

M. alterniflorum Alternate Water-milfoil
Prefers base-poor and peaty water. Locally plentiful. Atl. 14, 23-26, 32-35, 41-47, 50, 51, 53, 54, 56, 61, 62.

Hippuris vulgaris Mare's-tail
In a pool beside the shore, Kildorais; also marked for 62 but unlocalised. Rare. 47, 62.

Callitriche stagnalis Common Water-starwort
Common in N Skye. Is absence of records in S Skye due to under-recording? 14, 15, 23-26, 32-36, 44-47, 51, 60, 61.

C. hamulata *C. intermedia* Intermediate Water-starwort
Again more records from N Skye. Possibly under-recorded in S Skye. Locally plentiful. Atl. 24-26, 33-35, 43, 46, 51, 55.

C. hermaphroditica *C. autumnalis* Autumnal Water-starwort
Lochs and streams. Still probably under-recorded. Con(N). 14, 15, 26, 32, 44-47, 61.

Hedera helix Ivy
In woods and on rock faces. Local. Atl. All squares.

Hydrocotyle vulgaris Marsh Pennywort
Damp ground and ditches, usually near the sea. Very local. Atl. 24, 25, 33, 35-37, 45-47, 50-52, 54, 60, 61.

Sanicula europaea Wood Sanicle
In woods, in shade of rocks or boulders, and in limestone grikes. Local. Atl. All squares.

Astrantia major
Garden escape on bank of burn at Camas Mor, 37.

Anthriscus sylvestris Cow Parsley
Absent from all treeless areas. Occasional. 14, 23-26, 32-34, 36, 44, 46, 50-55, 60, 62, 72.

Myrrhis odorata Sweet Cicely
Waste ground. Talisker farm; Kyleakin. Int. 33, 72.

Torilis japonica Upright Hedge-parsley
Isolated plants in various parts of the island often far from hedges! Con(S). 33, 36, 37, 51, 54, 55, 60-62, 71, 72.

Conopodium majus Pignut
Grassland and woods. Common. Atl. All squares.

Aegopodium podagraria Goutweed, Ground-elder
Waste ground, usually near buildings. Local. Int. 14, 15, 24, 26, 32-37, 42, 44-47, 50-53, 60-62, 71, 72.

Berula erecta Lesser Water-parsnip
Marsh below bridge on pier road, Camas Mor; stream above shore, Osmigarry. Rare. Introduced? 37 only.

Oenanthe crocata Hemlock Water-dropwort
Wet places, usually near the sea. Local. Atl. All except 23, 26, 42, 43, 56, 63, 65.

Ligusticum scoticum Scots Lovage
Around the coast, on cliff ledges and rocky shores. Local, commoner on west side. ArcSA. 14, 24-26, 32-37, 42, 46, 47, 50, 51, 53, 54, 63.

Angelica sylvestris Wild Angelica
Damp grassland, woods, and even high on hills, on cliff ledges. Common. All squares.

Heracleum sphondylium Hogweed
Rough grassland. Common. Atl. All except 23, 41, 63, 65.

Daucus carota Wild Carrot
Grassy banks, inland, and grassland near the sea. Local. All except 23, 32, 41, 43, 54, 63, 65.

Mercurialis perennis Dog's Mercury
Dunvegan Castle grounds; Glen Bracadale; St John's Chapel burn; also near Portree, and near Tormore, Sleat; unlocalised record in 62. Very local. Atl. 24, 33, 34, 44, 60, 62.

Euphorbia helioscopia Sun Spurge
A weed of cultivated ground, but never in any quantity. 14, 15, 24-26, 34-36, 44, 45, 51-53, 62, 72.

E. peplus Petty Spurge
Garden weed, Kyleakin, 72.; also 47. Rare.

Koenigia islandica Iceland-purslane
In damp gravel or fine scree on Trotternish hills from Ben Dearg to Ben Edra. Altitudes from 800ft, S. of Loch Cuithir, to 2350ft near summit of Storr. So far not found in Quiraing area, or on Cuillin hills. Locally plentiful. ArcSA. 44-46, 55.

Polygonum aviculare Knotgrass
A fairly common weed of waste and arable ground. All except 23, 41, 43, 46, 54, 56, 63, 65.

P. oxyspermum ssp. **raii** Ray's Knotgrass
Sandy shores. Glen Brittle; Rubha Sloc an Eorna, Sleat. Rare due to lack of suitable habitat. Atl(S). 42, 50.

P. viviparum Alpine Bistort
Isolated patches in damp grassland at a range of altitudes from 150ft; dwarf specimens in summit grassland, Storr; Cuillin corries. Local. ArcAlp. 15, 25, 36, 42, 44-46, 51-53, 55, 61, 62, 71, 72.

P. bistorta Bistort
Dunvegan Castle grounds, 24; also 42. Introduced.

P. amphibium Amphibious Bistort
All records are the terrestial form, from damp ground, not even near water except in 33. Very local; commoner in S. Skye. 24-26, 33, 42, 50-52, 60-62.

P. persicaria Persicaria, Redshank
Cultivated ground and waste places. Common. All except 23, 41, 54-56, 63, 65.

P. hydropiper Water-pepper
In wet ground, or in ditches. Can be identified by chewing a leaf—tastes peppery! Occasional. 14, 24, 32, 33, 35, 36, 42, 44-47, 50-53, 60-62, 71, 72.

Bilderdykia convolvulus *Polygonum convolvulus* Black-bindweed
In shingle where Gillean Burn enters the sea (Sleat); arable weed, Uigshader and Lynedale. Rare. 35, 44, 50.

Reynoutria japonica *Polygonum cuspidatum* Japanese Knotweed
Cultivated in estate woodland and often escapes. Introduced.

Oxyria digyna Mountain Sorrel
Wet mountain rock ledges—Trotternish, Cuillin, Blaven, etc. On gravel at sea level at Torrin. Local. ArcAlp. 24, 26, 32, 33, 41-47, 51-55, 71, 72.

Rumex acetosella agg. Sheep's Sorrel
Rough grassland, and a weed of cultivated ground. Common. All squares.

R. acetosa Common Sorrel
Grassland, hills, and woods. Common. Con(N). All squares.

***R. longifolius** Northern Dock
Damp places, ditches. Probably under-recorded. Cont. 14, 15, 24, 26, 35, 52, 62.

R. crispus Curled Dock
Often in shingle and on rocky shores. All except 23, 32, 37, 63, 65.

R. obtusifolius Broad-leaved Dock
Waste and cultivated ground. Should be in all squares. Common. Atl. All except 41, 42, 54, 55, 63, 65.

R. sanguineus Red-veined Dock, Wood Dock
Grassy slope on shore at Holm; woodland, Armadale; edge of wood, shore at N. Fearns, Raasay. Rare. 53, 55, 60.

***R. conglomeratus** Sharp Dock, Clustered Dock
Damp grassy places. Records mainly NW Skye. Atl. 14, 23-25, 33-35, 56, 60, 61.

***Parietaria diffusa** Pellitory-of-the-wall
Old walls. 24 only. Dunvegan Castle? Int.

Urtica urens Small Nettle
Waste places and cultivated ground. Rare-or overlooked? 44, 71.

U. dioica Stinging Nettle
Waste ground, woods, and round houses and out-buildings. Often marks the site of old crofts. Common. All squares.

Humulus lupulus Hop
Dunvegan Castle grounds; Viewfield, Portree; also 25. Rare. Int. 24, 25, 44.

Ulmus glabra Wych Elm
Often only a single specimen, in woodland or on cliff ledges. Rare. All except 23, 26, 34, 37, 56, 63, 65.

Myrica gale Bog Myrtle
Wet moorland. Locally common. Atl. All except 23, 37, 63, 65.

Betula pendula Silver Birch
Less common than *B. pubescens*. Con(N). 15, 24, 35, 36, 41, 43-45, 47, 50-56, 60-62, 71, 72.

B. pubescens Downy Birch
Locally common. Numbers and growth reduced by sheep and mujrburn. Check whether ssp. **pubescens** or ssp. **odorata** occurs. Con(N). All except 14, 37, 63, 65.

Alnus glutinosa Alder
Wet places, often along streams. Very local. 14, 24, 25, 33-36, 44-47, 50-55, 60-62, 71, 72.

Corylus avellana Hazel
Locally plentiful, forming belts of woodland below bands of basalt cliff. Size and numbers reduced by sheep. Atl. All squares.

Quercus robur Pedunculate Oak
Recorded mainly in S Skye, and in Raasay and Scalpay. Local. 24, 35, 50, 51, 53, 60-62.

Q. petraea Sessile Oak
Commoner than above, especially in Sleat. Both seem to be missing from Trotternish and NW Skye. Local. Atl. 41, 42, 50, 51, 53, 60-62, 71, 72.

Populus tremula Aspen
Found singly or in small groups along stream banks, or on rocky ledges. Local. Con(N). All except 37, 65.

Salix pentandra Bay Willow
Probably always planted, for basket-making or for shelter. Rare. Con(N). 24, 32, 37, 45-47.

S. alba White Willow
As above. All records in NW Skye. Rare. 14, 15, 24, 32, 34.

***S. fragilis** Crack Willow
As above. Rare. 15, 47, 53, 61, 62,

S. triandra Almond Willow
Introduced, N and W Skye. 14, 24, 26, 33, 35, 51, 53, 56.

S. purpurea Purple Willow
Scattered specimens, probably all planted. Commoner in N Skye. 24, 34, 35, 44-47, 53, 60, 62.

S. viminalis Common Osier
Often planted in the past for basket-making. 15, 24, 32, 34-37, 42-47, 50-53, 60-62, 72.

S. caprea Goat Willow
Scattered specimens in woodland, and in rocky stream gorges. Commoner in N Skye, rare in Sleat. Con(N). 24-26, 33-36, 43-47, 51, 53-56, 60-62, 71, 72.

S. cinerea ssp. **oleifolia** (ssp. *atrocinerea*) Grey Willow
Damp woods, stream banks. Locally common and very variable. Atl. 14, 23, 24, 26, 32, 33, 35, 36, 41-46, 50-56, 60-62, 71.

S. aurita Eared Willow
The commonest Willow. Con(N). All squares.

S. aurita x repens
Recorded, but distribution not known.

S. aurita x cinerea
Raasay, 53. Elsewhere?

S. phylicifolia Tea-leaved Willow
About two plants to each square! Allt Dearg Beag, 42; bank of burn at head of Lon Mor, c.1100ft, 45; Lon Horro, 47. Rare. Mont.

S. repens Creeping Willow
Moorland, rock ledges on hills. Includes ssp. **argentea.** Locally common, except in Sleat. All except 60, 63, 71, 72.

S. myrsinites Whortle-leaved Willow
One plant on wet rocks below Sgurr Mor, 47. Rare. ArcAlp.

S. herbacea Dwarf Willow
Hill tops and rocky ledges, above 1000ft. Ben Edra; Storr; Cuillin; Red Hills; and others. Locally plentiful. ArcAlp. 24, 32, 42-47, 52, 53, 55, 62, 71, 72.

Rhododendron ponticum Rhododendron
Introduced and naturalised near original plantings—Dunvegan, Kilmarie, Armadale. Local. 24, 51, 60.

Pernettya mucronata Prickly Heath
Naturalised on cliffs and roadsides around Kilmarie estate, Strathaird. Int. 51 only.

Arctostaphylos uva-ursi Bearberry
Moors, rock faces. Locally common on the limestones of S Skye. Isolated patches on basalt in N Skye. Mont. 14, 15, 24-26, 32, 35, 36, 41-43, 46, 47, 50-54, 60-63, 71, 72.

Calluna vulgaris Heather, Ling
Growth and area covered affected everywhere by uncontrolled burning and by sheep. Common. All squares.

Erica tetralix Cross-leaved Heath
Wet moors and bogs. Common. Atl. All squares.

E. cinerea Bell-heather
Drier moors, and so is also over-grazed and burned. Common. Atl. All squares.

Vaccinium vitis-idaea Cowberry
Usually over 1000ft on Storr-Quiraing hills; Cuillin; Sgurr na Coinnich; etc. Never more than 2" high, except on sheltered cliffs. Occasional. Con(N). 24, 32, 33, 35, 42-47, 50, 52-55, 60-63, 71, 72.

V. x intermedium = V. myrtillus x vitis-idaea
Plants which are evergreen and puberulent, two characteristics of the hybrid, have been found all over Skye in winter, often miles from the nearest **V. vitis-idaea.** Until one with either flower or fruit (again distinctive for the hybrid) can be found, their identity is uncertain.

V. myrtillus Blaeberry, Bilberry
Moorland, rock ledges in stream gorges. Common, though fruit is not. Con(N). All squares.

Pyrola minor Common Wintergreen
Among heather at Brae, Raasay; also recorded from Screapadal. Dunvegan Castle woods, 1975. Rare. Con(N). 24, 54.

P. media Intermediate Wintergreen
Usually on thin soil, below heather. In the open at 380ft on Ben Tote, and there are a dozen other moorland sites within a 3-mile radius. Also in Glendale and Sleat (one site each). Cannot be separated from above when not in flower. Very local. Con(N). 14, 34, 35, 44, 45, 61.

Orthilia secunda Serrated Wintergreen
With *P. minor* at Brae, Raasay, and in two other sites in the same square. Sligachan record of 1868 not refound, but several groups discovered in wooded gorge, Glen Arroch, 1978. Rare. Con(N). 54, 72.

Empetrum nigrum Crowberry
Moorland; often on sea cliffs. Locally common. Mont. All squares.

E. hermaphroditum Mountain Crowberry
Usually on higher ground. Young stems green, not red. Further work required. ArcAlp. 24, 42, 43, 46, 47, 51-53.

Armeria maritima Thrift
Salt-marshes and sea cliffs; also on mountains. Locally common. Atl. All squares.

Primula vulgaris Primrose
Open grassland, woodland banks, rock ledges on hills. Common. Atl. All squares.

Lysimachia nemorum Yellow Pimpernel
Wet places. Locally plentiful. Atl. All squares.

Anagallis tenella Bog Pimpernel
Tiny isolated patches (compared with the Outer Isles), commoner in S Skye. Rare. Atl(S). 32, 41, 42, 45, 47, 50, 61.

***A. arvensis** Scarlet Pimpernel
Arable weed. Near Clachan, Raasay. Rare. 36, 53, 62.

A. minima Chaffweed
Bare, damp ground near the sea, or muddy paths inland. Rare. Con(S). 14, 24, 25, 33, 47, 53, 60, 61, 72.

Glaux maritima Sea Milkwort
Salt-marshes or rocky shores. Common. Con(N). All except 41, 54-56, 65.

Samolus valerandi Brookweed
Wet rocky ground near the sea. Aird, Sleat; mouth of Allt na Leac, S of Camas Malag; Tormore, Sleat; also 41. Rare. Con(S). 41, 50, 51, 60.

Fraxinus excelsior Ash
Native on the Suardal, Torrin and Tokavaig limestones, probably always planted elsewhere. Atl. 14, 15, 24, 25, 32-36, 42, 44-47, 50-53, 55, 60-62, 71, 72.

Vinca minor Lesser Periwinkle
Garden escape, Portree and Raasay. Int. 44, 53.

Centaurium erythraea Common Centaury
Dry grassland near the sea, mostly in S Skye. Wall of Armadale Castle. Rare. Atl. 36, 41, 47, 50-52, 55, 60-62.

Gentianella campestris Field Gentian
Grassland, including Storr at over 2000ft; road verges. Locally common. Con(N). All except 23, 43, 61, 63, 65, 71, 72.

G. amarella Felwort, Autumn Gentian
Limestone grassland behind shore, Torrin; roadside bank, Suardal. Rare. Cont. 51, 52, 62.

Menyanthes trifoliata Bogbean
Lochs and wet bogs. Locally common. Con(N). All squares.

Symphytum x uplandicum = S. asperum x officinale Russian Comfrey
Garden escape. Int. 24, 35, 36, 44, 47, 51-53.

S. tuberosum Tuberous Comfrey
Grounds of Raasay House; Corry Lodge, Broadford. Introduced. 53, 62.

Pentaglottis sempervirens Green Alkanet
Garden escape. Dunvegan; Armadale; Dunringell, Kyleakin. Introduced. 24, 60, 72.

Anchusa arvensis *Lycopsis arvensis* Bugloss
Arable weed, Glen Brittle; Uigshader; and elsewhere. Rare. 34, 42, 44, 53.

Myosotis scorpioides Water Forget-me-not
May be confused with *M. secunda* below. Reliable records required for both. 14, 25, 26, 32, 34-37, 41-46, 50-53, 55, 56, 61, 62.

M. secunda Creeping Forget-me-not
Commoner in peaty wet places and on hills. Check against above. Con(N). 14, 15, 23-26, 32-36, 44-46, 50-56, 60-62, 71, 72.

M. laxa *M. caespitosa* Tufted Forget-me-not
Marshes, burns and ditches. Local. Con(N). 14, 15, 24, 25, 33-35, 42-44, 47, 50-53, 55, 61, 62.

M. sylvatica Wood Forget-me-not
Viewfield, Portree; woods near Post Office, Raasay. Introduced. 44, 53.

M. arvensis Field Forget-me-not
An uncommon weed of waste ground. 14, 15, 24, 26, 34-37, 44, 45, 47, 50, 51, 53, 54, 60-62, 72.

M. discolor Changing Forget-me-not
A common weed of cultivated ground. Atl. All except 23, 33, 41, 52, 63, 65.

Mertensia maritima Oysterplant
About a dozen plants on shingle at Ardroag. Known there since the 1930s, but numbers vary—only one plant, 1978.

***Convolvulus arvensis** Field Bindweed
Waste places. Introduced? 26, 34, 36.

Calystegia sepium Hedge Bindweed
Introduced and then naturalised. Check with above, and with ssp. **pulchra** (62) and ssp. **sylvatica** (24, 44, 62). 14, 36, 44, 45, 47, 50-52, 60-62, 72.

Solanum dulcamara Bittersweet
Dunvegan Castle estate. Rare. Introduced. 24, 41, 61.

Linaria repens Pale Toadflax
Garden escape, waste ground, Portree. Introduced. 44 only.

Cymbalaria muralis Ivy-leaved Toadflax
On estate and garden walls. Introduced. 24, 35, 42, 44, 60, 71.

Scrophularia nodosa Common Figwort
Woods, grassy banks. Local, often only two or three plants. All except 25, 34, 37, 47, 63, 65.

S. auriculata *S. aquatica* Water Figwort
On a wall opposite the Dunvegan Hotel, 1958; still there 10 years later. Atl(S). 24 only

Mimulus guttatus Monkeyflower
Spreads in ditches and along stream banks. Local. Int. 14, 15, 24, 25, 32, 34-37, 42-45, 51-53, 60-62, 72.

M. luteus Blood-drop-emlets
Less common in similar habitat. Balmaqueen, 47. Introduced. Check whether **M. guttatus x luteus** occurs. 36, 47, 62.

M. moschatus Musk
Garden escape, Duisdale, 71.

Digitalis purpurea Foxglove
Moorland, woodland, walls and rocks. Common. Atl. All squares.

Veronica beccabunga Brooklime
Most records from areas on Jurassic or limestone rocks, and nearly all from burns and marshy ground near the sea. Very local. 14, 25, 32, 36, 37, 42, 44, 46, 47, 51-55, 61, 62.

V. scutellata Marsh Speedwell
Easily overlooked in marshy edges of lochs, and boggy ground. Very local. 14, 15, 24-26, 34-36, 44-47, 50, 51, 53-55, 61, 62, 71.

V. officinalis Heath Speedwell
Moorland, woods and rocks. A large, leathery form occurs on mountains. Common. All squares.

V. montana Wood Speedwell
Dun Liath woods, Strathaird; Kinloch woods; gorge at Brae, Raasay. Rare. Con(S). 51, 53, 54, 61, 71.

V. chamaedrys Germander Speedwell
Grassland, woods. Common. All squares.

V. serpyllifolia Thyme-leaved Speedwell
In grassland, and as an arable weed. Common. All squares. Check for ssp. **humifusa**—corolla blue, inflorescence and capsule glandular—Quiraing, 47.

V. arvensis Wall Speedwell
Usually a weed of arable or waste ground. Local. 14, 15, 24-26, 33-36, 42, 44-47, 50-55, 60-62, 71, 72.

V. hederifolia Ivy-leaved Speedwell
Garden weed, Dunringell, Kyleakin, 1978. Confirms unlocalised record of 1911. 72 only.

V. persica Buxbaum's Speedwell, Common Field-speedwell
Garden weed, Dunvegan Castle grounds; Lynedale; Dunringell, Kyleakin. Introduced. 24, 35, 43, 47, 50, 52, 53, 61, 62, 72.

V. polita Grey Field-speedwell
Waste ground, Kilmarie. Introduced? 51, 62.

V. agrestis Green Field-speedwell
Occasional in cultivated ground. Atl. 43, 45, 51, 53, 62.

V. filiformis Slender Speedwell
Escapes from estates and gardens, and spreads rapidly in grassy ground. Int. 34-36, 43-45, 51, 62, 72.

Pedicularis palustris Red-rattle, Marsh Lousewort
Wet ground and shallow loch edges. Common. Con(N). All squares.

P. sylvatica Lousewort
Damp moors, and boggy ground. Common. Atl. All squares. Check for ssp. **hibernica**—long white hairs on calyx and pedicels. 15, 24, 32, 33, 35, 42, 43, 45-47.

Rhinanthus minor Yellow Rattle
Grassland. Common. All except 23, 41, 63, 65. Check for ssp. **stenophyllus** and ssp. **monticola**.

R. minor ssp. **borealis**
Rock ledges on cliffs of Storr-Quiraing ridge. Local. ArcSA. 45-47.

Melampyrum pratense Common Cow-wheat
Usually in hazel or birch scrub, but in wet open moorland in Glen Sligachan. Occasional. Con(N). 14, 24, 25, 33-35, 41-47, 50-56, 60-62, 71, 72.

Euphrasia officinalis agg. Eyebright
Common. All squares. Further recording of microspecies required. The following have been found so far, all identified by P. F. Yeo.

E. micrantha
Heaths and moors. Atl. All except 36, 37, 43, 46, 55, 60, 65.

E. scottica
Wet flushes on moors and hills. ArcSA. 14, 15, 24, 25, 33-36, 41-47, 50-55, 62, 71, 72.

E. frigida
Damp rock ledges, and burnsides on hills. ArcSA. 41, 45.

E. marshallii
Sea coast near Ardmore Point, 26.

E. marshalii x nemorosa
Below cliff at Trumpan, 26.

E. ostenfeldii *E. curta*
Grassy mountain slopes, and near the sea. Atl(N). 14, 44-46, 54, 55, 72.

E. tetraquetra** *E. occidentalis
Grassland by the sea, Lower Breakish, 62.

E. nemorosa
Lowland grassland. Atl(S). 34, 45, 47, 51, 52, 61, 62.

E. confusa
Mountain grassland and moorland rocks. Salt-marsh at Kensaleyre, 45. Atl(N). 14, 24, 33, 34, 41, 42, 44-46, 51, 61, 62, 71.

E. arctica ssp. **borealis** *E. brevipila*
Grassy banks, roadsides and fields. Cont. All except 43, 63, 65, 72.

Odontites verna Red Bartsia
Farm tracks and waste places. Local. All except 23, 32, 41-43, 54, 63, 65.

Orobanche alba Thyme Broomrape
Rocky slopes and sea cliffs, mainly in N Skye. Rare and often only a single plant. Con(S). 14, 23-26, 33, 36, 44, 46, 47, 54, 61, 62.

Pinguicula lusitanica Pale Butterwort
Bogs and wet moorland, flowering later than *P. vulgaris*. Local. Atl(S). All except 26, 34, 37, 65.

P. vulgaris Common Butterwort
Bogs and wet rocks. Locally common. Con(N). All squares.

Utricularia vulgaris agg. Greater Bladderwort
Lochans and moorland pools. Five of these records are **U. australis** *(U. neglecta)*. Occasional. Con(N). 25, 34, 42, 45-47, 61, 62.

U. intermedia Intermediate Bladderwort
Shallow edges of lochs, or muddy pools. Most records in S Skye. Occasional. Con(N). 15, 25, 34, 44, 50-52, 54, 61, 62, 71.

U. minor Lesser Bladderwort
In shallow peaty pools, where it sometimes flowers. Locally common. Con(N). 14, 24, 25, 32, 33, 35, 41-45, 47, 50-54, 56, 60-62, 71, 72.

Mentha arvensis Corn Mint
Arable fields, road verges; roadside ditch in centre of Portree over several seasons. Rare. 24, 33, 35, 42, 44, 45, 51-53, 60-62, 71.

M. x verticillata = M. aquatica x arvensis
Shore at Camastianavaig, 53; also in 51.

M. aquatica Water Mint
In burns and ditches, and on loch margins. Local. All except 23, 34, 42, 43, 63, 65, 71, 72.

Lycopus europaeus Gipsywort
Wet stony sea shores, never inland. Very local. Con(S). 25, 33, 34, 41, 50, 51, 53, 60, 61, 71, 72.

Thymus praecox ssp. **arcticus** *T. drucei* Wild Thyme
Dry moorland, rocks and scree. Common. Atl. All squares.

Prunella vulgaris Selfheal
Grassland and waste ground. Common. All squares.

Stachys arvensis Field Woundwort
An uncommon arable weed. Atl. 36, 45, 47, 51, 72.

S. palustris Marsh Woundwort
Damp grassland, often in arable ground. Locally common. All except 23, 32, 41-43, 54, 63, 65.

S. sylvatica Hedge Woundwort
In more shady places. Common. All except 41, 63, 65.

S. x ambigua = S. palustris x sylvatica
Perhaps overlooked. 44, 61, 71.

Betonica officinalis Betony
Portree (Project Glen), and Penefiler (Inveralivaig). Three records in Sleat. Rare. 44, 47, 60-62.

***Lamium moluccellifolium** Northern Dead-nettle
Weed of cultivated ground. Con(N). 41, 53.

L. purpureum Red Dead-nettle
Weed of cultivation, and in gardens in Portree. Local. 24-26, 34-37, 42, 44, 47, 50, 51, 53, 60-62, 71, 72.

Galeopsis tetrahit Common Hemp-nettle
Arable weed. Common. All except 23, 41, 54-56, 63, 65.

G. speciosa Large-flowered Hemp-nettle
In cultivated ground. Large flowers, yellow with purple lip. Rare. 15, 24, 35, 45, 50-53, 60, 62.

G. bifida
Smaller than either of the above, and probably under-recorded. Con(N). 36, 43, 45, 71.

Glechoma hederacea Ground-ivy
Woodland, Dunvegan Castle; Kilmarie, Strathaird; Corry, Broadford; among other places, mostly in S Skye. Introduced? 24, 36, 42, 51, 60-62, 72.

Scutellaria galericulata Skullcap
In shingle at various places round the coasts. Local. Con(N). 14, 23-25, 33, 34, 36, 41, 50-55, 60-62, 71, 72.

S. minor Lesser Skullcap
Easily overlooked in wet heathland, especially when not in flower. Very local. Atl. 32, 33, 36, 43, 50-53, 60, 61.

Teucrium scorodonia Wood Sage
Dry banks, rock ledges, on moors and hills. Common. Atl. All squares.

Ajuga reptans Bugle
Woodland and scrub, burn gorges, and rock ledges on hills. Common. Atl. All except 37, 56, 63, 65.

Plantago major Greater Plantain
Cultivated and waste ground. Common. All except 41, 55, 63, 65.

P. lanceolata Ribwort Plantain
Grassy places. Common. All squares.

P. maritima Sea Plantain
On wet mountain rocks as well as in salt-marshes and ground near the sea. Common. Atl. All squares.

P. coronopus Buck's-horn Plantain
On rocks and in salt-marsh and cliff-top turf. Absent where rivers enter the sea, as at head of Loch Snizort. Locally plentiful. Atl. All except 34, 42, 44, 45, 54, 55.

Littorella uniflora Shoreweed
In lochs and pools with shallow margins. Locally plentiful. Atl(N). All except 15, 23, 26, 37.

Campanula rotundifolia Harebell
Mysteriously rare—two tiny patches in Uig; one at Teangue; one in Raasay; and records still untraced in three other squares. Roadside casual, Lynedale, 1978. 35, 36, 47, 53, 60, 61, 62.

Lobelia dortmanna Water Lobelia
Shallow edges of lochs. Common. Atl(N). All except 15, 25, 26, 37, 65.

Sherardia arvensis Field Madder
An uncommon weed of arable and waste ground. Rare. Casual only? Cont. 50, 52-54, 62.

Galium odoratum Woodruff
Isolated patches in woodland, or in shade at base of basalt scarps. Local. All except 14, 15, 37, 42, 47, 56, 63, 65.

G. boreale Northern Bedstraw
Rocky slopes and ledges; rough grassland. Locally plentiful in basalt areas, but seems to be missing from Sleat and Raasay. Con(N). All except 37, 47, 51, 60, 63, 65, 71.

G. mollugo Hedge Bedstraw
Hayfields at Edinbane and Prabost, over several seasons. Possibly introduced. Con(S). 35, 45.

G. verum Lady's Bedstraw
Locally common on roadside verges between Struan and Dunvegan; behind Glen Brittle beach. Isolated patches elsewhere, and seems to be missing from Sleat (except 50) and Raasay. Con(S). 14, 23-26, 32-36, 41, 42, 45, 47, 50-52, 56, 61, 62.

G. saxatile Heath Bedstraw
Moorland, rough grassland. Common. Atl. All squares.

G. palustre Marsh Bedstraw
Marshy ground and ditches. Common. All squares.

G. aparine Sticky Willie, Cleavers
Often in shingle rather than in hedges. Locally common. All except 23, 63, 65.

Sambucus nigra Elder
Scattered plants in woodland, and often planted beside croft houses. Atl. All except 23, 41, 54, 55, 63, 65.

Viburnum opulus Guelder-rose
Isolated specimens in rocky stream gorges—Dunvegan; Glen Brittle; Sligachan; Suardal. Locally more plentiful at Torrin, on limestone outcrops, and croft scrubland. Rare. 24, 32, 41-44, 51, 52, 54, 61, 62.

Lonicera periclymenum Honeysuckle
Woods, rock faces, gorges in burns. Common. Atl. All squares.

Valerianella locusta Lamb's-lettuce, Common Cornsalad
Rocks at roadside, Ord, Sleat, and in nearby garden. Rare. 61 only.

Valeriana officinalis Common Valerian
Damp grassland. Locally common. All squares.

Centranthus ruber Red Valerian
Naturalised on Dunvegan Castle walls. Introduced. 24 only.

Succisa pratensis Devil's-bit Scabious
Grassland, moorland, rock ledges on hills. Common. All squares.

Senecio jacobaea Ragwort
Rough grassland, waste ground. Locally common. All squares.

S. aquaticus Marsh Ragwort
Marshy ground and ditches. Common. Atl. All except 41, 50, 63, 65.

S. sylvaticus Heath Groundsel
Quarry near Ullinish; wall of ruined cottage, Gleann Meadhonach; also 44, 61. Rare. Atl. 33, 44, 60, 61.

S. vulgaris Groundsel
In cultivated and waste ground. Locally plentiful—too plentiful! 14, 15, 24, 26, 32-37, 43-45, 47, 50-53, 60-62, 71, 72.

Tussilago farfara Colt's-foot
Among stones at edges of rivers and burns, or on damp muddy banks. Local. Under-recorded in Sleat. 14, 15, 24-26, 32-37, 43-47, 51-56, 60, 62.

Petasites hybridus Butterbur
Banks of burns and other wet places. Local. Under-recorded or missing from S Skye. 14, 23, 24, 32, 34, 35, 44, 45, 47, 53, 55, 56, 60, 62.

Inula helenium Elecampane
Dunvegan Castle grounds; Portree; Brochel, Raasay; and 62. Rare, introduced. Cont. 24, 44, 54, 62.

Pulicaria dysenterica Fleabane
Garden escape, ditch near Ostaig, Sleat, 60.

Gnaphalium sylvaticum Heath Cudweed
On dry or stony paths, and farm tracks. Rare. 15, 24, 35, 50, 52-54, 60-62, 71, 72.

G. supinum Dwarf Cudweed
In scree or stony ground high on Storr-Quiraing ridge; Cuillin; Red Hills; Blaven; Sgurr na Coinnich. Local to rare. ArcAlp. 42, 45-47, 52, 53, 62, 71, 72.

G. uliginosum Marsh Cudweed
Isolated patches on damp paths, dried-up pond edges, etc. Rare. 25, 33, 35, 44, 45, 47, 60-62, 71, 72.

Anaphalis margaritacea Pearly Everlasting
Garden escape. Introduced. 24, 35, 45.

Antennaria dioica Cat's-foot, Mountain Everlasting
On rocks and thin soil on moorland. Check whether var. **hyperborea** occurs. Local. Con(N). All squares.

Solidago virgaurea Goldenrod
Moorland and woodland banks, mountain rock ledges. Check whether mountain forms include var. **cambrica**. Common. Con(N). All squares.

Aster tripolium Sea Aster
Locally plentiful in salt-marshes, but absent where sizeable rivers enter the sea (head of Loch Snizort, head of Loch Slapin). 24, 33-35, 44, 51, 60-62, 71, 72.

Bellis perennis Daisy
Common in grassland and as a garden weed. Atl. All squares.

Eupatorium cannabinum Hemp-agrimony
Damp places on or below sea cliffs, more often on Jurassic rocks than basalt. Locally plentiful, as at Talisker. 24, 25, 33, 35, 36, 41, 50, 51, 53-56, 60, 61, 71.

Achillea ptarmica Sneezewort
Damp grassland and marshes. Common. All squares.

A. millefolium Yarrow
Drier grassland, road verges, grassy banks. Common. All squares.

Tripleurospermum maritimum Scentless Mayweed
Shingle beaches and maritime grassland. Local. Check on occurrence of ssp. **maritimum** as distinct from ssp. **inodorum**. Atl. All except 43, 54, 63, 65.

Matricaria matricarioides Pineappleweed
Frequent in trampled ground round farm buildings and gateways, and on paths. Introduced. All except 23, 41, 54, 63, 65.

Chrysanthemum segetum Corn Marigold
Weed of cultivated ground, indicating lack of lime. Locally common. Introduced? 14, 15, 24-26, 33-37, 42, 44-47, 50-53, 56, 60-62.

C. leucanthemum Ox-eye Daisy
Hayfields and grassy banks. Common. All except 23, 54, 55, 63, 65.

C. parthenium Feverfew
Run wild in Schoolhouse garden, Kyleakin, 72; also 36. Introduced.

C. vulgare Tansy
Probably introduced, since usually found near old houses. Occasional. 14, 15, 24-26, 33, 35-37, 44-47, 50, 52, 53, 60-62, 71, 72.

Artemisia vulgaris Mugwort
Waste places, road verges. Local and never in any quantity. Cont. 14, 24, 35-37, 44, 45, 47, 50-53, 60, 62, 72.

Carlina vulgaris Carline Thistle
Rock ledges or grassy slopes near the sea, mainly in N and W Skye. Rare. Con(S). 14, 15, 24, 26, 33, 36, 47, 51.

Arctium minus ssp. **nemorosum** Lesser Burdock
Waste places. Occasional. All records of *A. lappa* and *A. minus* are more likely ssp. *nemorosum*. Con(S). 15, 24, 32, 35, 41, 47, 51, 53, 54, 61, 71.

Cirsium vulgare Spear Thistle
Fields, waste places. Common. All squares.

C. palustre Marsh Thistle
Wet grassland, ditches. Common. All squares.

C. arvense Creeping Thistle
Fields, waste places. Common. All except 23, 41, 63, 65.

C. heterophyllum Melancholy Thistle
Damp grassy banks by burns; damp fields. Local. Mont. All squares.

Saussurea alpina Alpine Saw-wort
Scattered patches, or even single plants, on mountain ledges, or in scree. Storr-Quiraing ridge; Cuillin; Blaven group; Ben Aslak. Also on cliffs above sea at Talisker. Rare except in Cuillin. ArcAlp. 15, 24, 32, 41, 42, 45-47, 52, 53, 71.

Centaurea nigra Common Knapweed
Rough grassland. Common. Check for ssp. **nigra** (more likely than ssp. **nemoralis**). Atl. All squares.

Lapsana communis Nipplewort
Edges of woodland, and also an arable weed. Occasional. 14, 24-26, 33, 35, 36, 43-45, 47, 50-54, 56, 60-62, 71, 72.

Hypochoeris radicata Cat's-ear
Grassland; moorland and roadside banks. Common. Atl. All squares.

Leontodon autumnalis Autumn Hawkbit
Grassland, river shingle and screes. Common. All except 25, 41, 63, 65.

L. taraxacoides Lesser Hawkbit
Roadside verge at Storr Lochs Dam, 55; also in 41, 50, 53. Rare. Atl. Perhaps introduced.

Mycelis muralis Wall Lettuce
Walls of ruined outbuildings, Corry Lodge, Broadford, and on walls along 'Hospital' road nearby. Introduced? 62 only.

Sonchus arvensis Perennial Sow-thistle
An arable weed, or on marshy shores. Missing from SE Skye and Raasay? Local. 24, 25, 35, 36, 41, 42, 44, 45, 47, 50, 60.

S. oleraceus Smooth Sow-thistle
Large gaps in distribution, possibly a result of confusion with the other two species. 24, 25, 33, 34, 44, 45, 51, 53, 54, 60, 61, 72.

S. asper Prickly Sow-thistle
Arable weed. Locally common. 14, 15, 23-26, 33, 34, 36, 42, 43, 45, 50-53, 55, 56, 60-62, 71, 72.

Cicerbita macrophylla ssp. **uralensis** Blue Sow-thistle
Garden escape in ditch at Camas Mor, Bornaskitaig, 37. Introduced.

Hieracium Hawkweed
Grassy banks, edges of burns, rocky gorges, sea cliffs, and mountain rocks and ledges. The following 43 species have been recorded so far, all of which were identified or confirmed by P. D. Sell and C. West.

Hieracium ligulatum
Blaven. 52 only.

***H. longilobum**
Storr cliffs. 45 only.

H. petrocharis
Rocky outcrop, Tote. 45 only.

H. shoolbredii
Rocky ground near the sea; also on limestone at Suardal. The most widespread species on Skye. 14, 24, 25, 32, 35, 36, 41-43, 45-47, 50-55, 61, 62, 71.

H. hebridense
Rocky outcrops. 36, 42, 45,50, 54, 55, 61, 62.

H. ampliatum
Rocks, ranging from seashore to mountain cliff ledges. 14, 25, 47, 51, 52, 54, 61, 62.

H. langwellense
Rocks and scree on hills; shore rocks at Oskaig, Raasay. 44, 45-47, 53, 61.

H. anglicum
Grassy banks and rock ledges. 15, 24, 36, 42-46, 51-53, 55.

H. iricum
Sea cliffs, and walls. 33, 36, 52, 55, 62.

***H. stenopholidium**
Limestone at Hallaig, Raasay. 53 only.

H. ebudicum
All from shore cliffs, all limestone or Jurassic rocks. 25, 36, 41, 53.

H. schmidtii
Bank of burn, head of Loch Ainort; rocks above Quiraing road. 46, 52.

H. nitidum
Cliffs above shores, or rocky stream gorges; Brochel Castle, Raasay. 36, 43, 46, 54, 60, 71.

H. jovimontis
Grassy bank by the sea. 53 only.

H. argenteum
Stream gorges, or inland cliffs. 33, 42, 44, 50-54, 62.

H. caledonicum
Rocks by rivers or streams. 14, 24, 25, 34, 36, 41, 42, 45, 46, 51-55, 61, 72.

H. subrude
Inland cliff, Uig; coastal cliff, Knock, Sleat. 36, 60.

***H. orimeles**
Cliffs and rocks by streams. 14, 44, 53.

H. chloranthum
Rocks by rivers and shores. 24, 26, 36, 42-46, 51, 53, 72.

H. exotericum
Roadside rocks, Loch Cill Chriosd. 62 only.

H. uistense
Shore rocks and inland cliffs on hills. 42, 44, 45, 51, 55, 61, 62.

H. duriceps
Grassy banks, rock ledges. 24, 25, 41, 42, 45, 54, 61, 62, 72.

H. pictorum
Rocky stream banks, shore cliffs. 24, 42, 51-54.

***H. pollinarioides**
Limestone cliffs and rock ledges, Raasay. 53, 54.

***H. piligerum**
Blaven. 52 only.

H. cymbifolium
Limestone cliffs and rock ledges, Raasay. Shore cliffs, Skye. 51, 53, 54.

H. pseudostenstroemii
Hallaig, Raasay; Rudh'a'Chinn Mhoir, Scalpay. Both 53.

H. subtenue
Cliff, Sgurr Mor. 47 only.

H. subhirtum
Cliffs and rocky stream-sides. 36, 45, 54.

H. rhomboides
Suardal. 62 only.

***H. caesiomurorum**
Limestone cliffs, Raasay. 53 only.

H. euprepes
Hill and mountain rock ledges. 46, 47, 51, 62.

***H. diaphanoides**
Limestone gorge, Druim an Aonach, Raasay. 54 only.

H. rubiginosum
Coastal cliffs, and inland by burns. 14, 24, 25, 33, 36, 42, 47, 54, 61, 72.

H. vulgatum
Rocky and grassy places, commonest after *H. shoolbredii*. 33, 36, 41-45, 50-55, 60-62, 71, 72.

H. cravoniense
Cliffs and rocky places, all so far on limestone. 51-53, 62.

H. sparsifolium
Rock ledges, roadsides, river banks. 15, 24, 36, 44, 50, 54.

H. uiginskyense
Rocks and roadside banks. 25, 35, 36, 44.

H. latobrigorum
Cliffs, walls, fields. 33, 36, 46, 47, 51-53.

H. subcrocatum
Cliffs, grassy banks. 25, 44-46, 60.

H. strictiforme
Seashore and inland cliffs, grassy banks. 26, 33, 36, 46, 47, 50.

***H. reticulatum**
Tokavaig ravine. 61 only.

H. perpropinquum
Woodland, Kilbride House. 52 only.

Pilosella officinarum *Hieracium pilosella* Mouse-ear Hawkweed
Dry grassy and rocky banks. Division into subspecies required. Agg. in all except 23, 34, 63, 65.

So far the following subspecies have been confirmed by experts.

Ssp. **micradenia** 60, 71.

Ssp. **officinarum** 54.

Ssp. **tricholepia** 24, 53, 54.

Ssp. **melanops** 24, 61.

P. aurantiaca ssp. **carpathicola** *H. brunneocroceum*
Naturalised in Portree and Kyleakin. 44, 72.

Crepis capillaris Smooth Hawk's-beard
Grassland, waste places. Locally common. 14, 15, 24, 26, 33-36, 42-47, 50-53, 56, 60-62, 71, 72.

C. paludosa Marsh Hawk's-beard
Wet grassland, wet woods, and rocks by burns. Local. 26, 32, 33, 35-37, 43-46, 50-56, 60-62, 71, 72.

Taraxacum agg. Dandelion
The aggregate is locally common in all squares, but division into the following four sections is required—

Section **Erythosperma**
Dry places, sandy heaths, dunes.

Section **Obliqua**
Sand dunes and turf near the sea.

Section **Spectabilia**
Wet places—moorland, hills, and by rivers and burns.
Taraxacum unguilobum 25, 33, 50, 52, 60-62, 72.
T. fulvicarpum 25.
T. landmarkii 25, 36, 45, 50, 52, 61, 62, 72.
T. faeroense 25, 33, 36, 42-45, 50, 52, 55, 60, 62.
T. spectabile 42, 45.
T. reclinatum 62.
T. euryphyllum 42, 45, 62.
T. maculiosum 25, 60-62.
T. naevosiforme 42, 72.
T. lainzii 46, 51, 52.
T. naevosum 45.
T. adamii 45.

Section **Vulgaria**
Waste places—grassland, roadsides, gardens.
T. xanthostigma 72.
T. ostenfeldii *T. duplidens* 72.
T. polyodon 44, 60.

All records det. A. J. Richards.

Baldellia ranunculoides Lesser Water-plantain
Loch margins, usually submerged. Lochan Coir'a'Ghobhainn; Loch a'Ghlinne; Loch Cill Chriosd; Loch Airidh. Rare. Atl. 41, 50, 60, 62.

Alisma lanceolatum Narrow-leaved Water-plantain
Introduced into man-made lochan on Lynedale estate, c. 1900. The dam burst in 1978, and although the loch is gone, plants continue to flourish in the original burn. Not yet found elsewhere, though there are other 'constructed' fishing lochs in Skye. 35 only.

Triglochin palustris Marsh Arrowgrass
Marshy ground, and edges of burns. Common. All squares.

T. maritima Sea Arrowgrass
Salt marshes, and wet places on rocky shores. Common. Atl. All except 14, 23, 54-56, 63, 65.

Zostera marina Eelgrass
Found washed up on sandy shores. Talisker; Balmeanach, Braes; Glen Brittle; etc. Occasional. Atl. 25, 33, 42, 51, 53, 61.

Potamogeton natans Broad-leaved Pondweed
Lochs and pools. Common. All except 15, 36, 37, 41, 55, 63, 65, 71.

P. polygonifolius Bog Pondweed
Shallow bog-pools and ditches. Common. Atl. All squares.

P. coloratus Fen Pondweed
Loch Cill Chriosd (calcareous water). Atl. 62 only.

P. lucens Shining Pondweed
Loch Cill Chriosd; also recorded in Raasay. Rare. 53, 62.

P. gramineus Various-leaved Pondweed
Lochs, including Loch Cill Chroisd on limestone (see CTW). Local. Con(N). 14, 44-47, 50, 51, 61, 62.

P. x nitens = P. gramineus x perfoliatus
Lochs; also pool in bend of river at Skeabost, 44. Rare. Un. 14, 44, 45, 47, 51, 61.

P. alpinus Red Pondweed
Lochs, including Loch Cill Chriosd. Occasional. Con(N). 14, 25, 26, 45, 47, 50, 51, 55, 62.

P. praelongus Long-stalked Pondweed
Lochs. Rare. Con(N). 14, 26, 45, 53, 61, 71.

P. perfoliatus Perfoliate Pondweed
Commoner in NW Skye, possibly due to better recording. Con(N). 14, 24-26, 33-35, 44-47, 51, 53, 56.

P. friesii Flat-stalked Pondweed
Loch na Creitheach, Camasunary, 52.

P. berchtoldii Small Pondweed
Loch Mor, Vaterstein; Loch Cuithir (diatomite loch). Overlooked elsewhere? 14, 45.

P. filiformis Slender-leaved Pondweed
Loch Mor, Vaterstein; Loch a'Chadhacharnaich, Raasay. Rare. Con(N). 14, 53.

***P. pectinatus** Fennel-leaved Pondweed
Recorded from Raasay, and Loch Braig on Rona. 53, 65.

Ruppia spiralis Spiral Tasselweed
Loch na h'Airde (brackish) on Rubh'an Dunain, 31. Rare.

R. maritima Beaked Tasselweed
Brackish pools in salt-marshes. Plentiful at Camas a'Mhoir Bheoil, Braes. 33, 41, 43-45, 53.

Eriocaulon septangulare Pipewort
In shallow water in dozens of small lochs in the Sligachan area, extending down Glen Sligachan as far as pools in 4924; also in Loch Airidh na Saorach group, beside Broadford—Armadale road; Loch nam Madadh Uisge, Luib. Locally plentiful. N American. 42, 43, 52, 62.

Tofieldia pusilla Scottish Asphodel
Recorded from "East corrie, Sgurr nan Eag" in 1947, and confirmed from top of An Garbh Choire (same area) in 1978. Rare. ArcAlp. 42 only.

Narthecium ossifragum Bog Asphodel
Wet moorland. Common. Atl. All squares.

Ruscus aculeatus Butcher's-broom
Ruined garden at Fiskavaig; Raasay House grounds. Introduced. 33, 53.

***Scilla verna** Spring Squill
Dry grassy places on the coast. Reported as seen on Skye, but still to be confirmed. Nearest is on Canna (also v.-c. 104).

Endymion non-scriptus Bluebell, Wild Hyacinth
More often in open grassland than in woodland. Rock ledges on Sgurr an Fheadain (Cuillin) at c. 1200ft. Locally plentiful. Atl. All squares.

Allium ursinum Wild Garlic, Ramsons
Woodland, and in boulder scree; also often on sea cliffs. Locally common. Atl. All except 37, 42, 63, 65, 72.

Paris quadrifolia Herb-Paris
Boulder scree, below Sgurr a'Bhagh; ravine of Allt a'Ghlinne; Tokavaig gorge, Sleat; limestone grikes at Suardal and Corrychatachan; the first two not on limestone, but probably ultrabasic. Rare. 25, 26, 61, 62.

Juncus squarrosus Heath Rush
Damp moorland. Common. Atl. All squares.

J. tenuis Slender Rush
Roadsides and waste ground. Commoner in S Skye—or possibly under-recorded in N. Local. Introduced. 24, 35, 36, 42-45, 50-53, 60, 61, 72.

J. gerardii Saltmarsh Rush
Salt-marshes. Locally common. All except 54-56, 65.

J. trifidus Three-leaved Rush
On rock ledges and on stony ground high on Cuillin hills; Blaven group; Glamaig; Sgurr na Coinnich; etc. Very rare compared with Cairngorms. ArcAlp. 42, 52, 53, 62, 71, 72.

J. bufonius Toad Rush
Muddy paths, fields and loch margins. Common. All except 41, 43, 54, 63, 65.

J. effusus Soft Rush
Wet fields, bogs and ditches. Common. All squares.

J. subuliflorus *J. conglomeratus* Compact Rush
On more acid soil than above, and easily confused with it. Probably as common. All except 36, 37, 55, 63, 65.

J. acutiflorus Sharp-flowered Rush
Wet fields and moors, on more acid soils. Needs checking against two preceding species. Atl(S). All except 23, 37, 41, 46, 47, 63, 65.

J. articulatus Jointed Rush
Wet places. Common. All squares

J. bulbosus Bulbous Rush
Wet moorland, muddy tracks. Common. Atl. All squares.

J. bulbosus ssp. **kochii**
A variation of above, with 6 stamens instead of 3, and may be the commoner. Atl. 24, 26, 34, 36, 41, 43, 45, 46, 50, 54-56, 61, 62, 71, 72.

J. biglumis Two-flowered Rush
Wet stony places on Storr-Quiraing ridge. Check that specimen is *not* a two-flowered *J. triglumis*—lowest bract should exceed inflorescence. Rare. ArcAlp. 45-47.

J. triglumis Three-flowered Rush
Similar habitat to above, but more plentiful. Cuillin (unlocalised); Storr-Quiraing ridge. Local. ArcAlp. 42, 45-47.

Luzula pilosa Hairy Wood-rush
Woods and grassy banks—more obvious in May-June than later on. Occasional. Con(N). All except 26, 37, 42, 52, 62, 63, 65.

L. sylvatica Great Wood-rush
More often on hill slopes and on sea cliffs than in woods. Locally plentiful. Atl. All squares.

L. spicata Spiked Wood-rush
Scree and rock ledges on hills. Cuillin; Storr-Quiraing ridge; Red Hills; two hills in Sleat. Rare. ArcAlp. 42-46, 52, 54, 55, 62, 71, 72.

L. campestris Field Wood-rush
One of the first plants to flower, on turf dykes and dry grassy slopes. Locally common. Atl. All except 63, 65.

L. multiflora Heath Wood-rush
Rough grassland and woods. Locally common. All except 37, 63, 65.

Iris pseudacorus Yellow Flag, Yellow Iris
Wet places, including seashores. Locally common. Cont. All except 23, 41, 63, 65.

Crocosmia x crocosmiflora Montbretia
Naturalised—an escape from garden or estate plantings. Int. 14, 15, 24, 35, 42, 43, 45, 50, 51, 53, 60, 61.

Cephalanthera longifolia Long-leaved Helleborine
In hazel scrub at Calligarry, Sleat; known there for at least 25 years. Rare. Cont. 60 only.

Epipactis helleborine Broad Helleborine
Half a dozen scattered plants on limestone, south of Torrin. Rare. 51, 52.

E. atrorubens Dark-red Helleborine
In limestone 'grikes', Allt nan Leac, S. of Camas Malag; Leac nan Craobh, S. of Torrin; Tokavaig; Suardal; and on Raasay. Often leaves without flowers. Rare. 51, 52, 54, 61, 62.

Listera ovata Twayblade
Open grassland and in woods; limestone 'grikes' and rock ledges at Suardal and elsewhere; on limestone only in Raasay. Very local. 24, 26, 33, 36, 45, 46, 51-56, 60-62.

L. cordata Lesser Twayblade
Much more plentiful than *L. ovata*. Often overlooked under damp heather; also in *Sphagnum* on damp banks. Begins flowering in May. Local. Con(N). 14, 15, 24, 33-36, 42-47, 50-55, 60-62, 71, 72.

Neottia nidus-avis Bird's-nest Orchid
Woodland above Fearns-Hallaig path, Raasay, 1969. Rare. 53 only.

Hammarbya paludosa Bog Orchid
Boggy ground, Loch an Eilean, Sligachan; near Loch Ainort; near Lochan Fada; etc. Rare and difficult to find if not in flower. Con(N). 41, 43, 52, 54, 61, 72.

Coeloglossum viride Frog Orchid
Records suggest it prefers limestone or Jurassic areas to basalt. Very local. Con(N). 24-26, 35, 36, 46, 47, 51-56, 61, 62.

Gymnadenia conopsea Fragrant Orchid
Base-rich grassland, but sometimes among heather. Locally common. Var. **insulicola** (smell of rubber) has not been recorded, and the Skye plants do not match var. **densiflora** either, and require further investigation. Cont. All except 23, 32, 34, 35, 63, 65, 72.

Leucorchis albida Small-white Orchid
Scattered plants on dry moorland. Only Aird, in Sleat so far. Rare. Mont. 14, 15, 24-26, 33, 36, 41, 42, 44, 45, 47, 50-53, 56, 61.

Platanthera chlorantha Greater Butterfly-orchid
Rough grassland. Numbers vary from one year to another, possibly reflecting weather difference. Local. 14, 15, 24-26, 32-36, 42-47, 50-53, 56, 61, 62, 71.

P. bifolia Lesser Butterfly-orchid
Often in same stretch of ground as above. Local. 24, 34-36, 41-47, 50-54, 56, 61, 62, 71, 72.

Orchis mascula Early-purple Orchid
Occurs in patches in grassland; singly on sea-cliff and mountain ledges. First orchid to flower, in May. Locally common. All except 23, 34, 50, 63, 65, 71.

Dactylorhiza incarnata Early Marsh-orchid
Wet peaty ground. Records all ssp. **incarnata** (flowers flesh pink). Check whether ssp. **coccinea** occurs. Very local. Cont. 15, 24, 25, 33, 34, 42-45, 47, 50-54, 61-63, 71, 72. Ssp. **pulchella** (flowers magenta) under-recorded—only 42, 72—but probably elsewhere.

D. maculata ssp. **ericetorum** Heath Spotted-orchid
Moorland and hills. Common. All squares.

D. fuchsii Common Spotted-orchid
Damp grassland. Check on possible occurrence of ssp. **hebridensis** and ssp. **okellyi** (on limestone). Also ssp. **rhoumensis**, which may not be confined to Rum. Locally common. All except 37, 41, 43, 63, 65.

D. purpurella Northern Marsh-orchid
Wet grassland and marshy ground. Locally common. All except 23, 37, 41, 56, 60, 63, 65.

Dactylorhiza maculata ssp. **ericetorum** x **purpurella**
Has been recorded and other hybrids may also occur.

Lemna minor Duckweed
In shallow pools and ditches. Very local; four of the six records are from the same area. 14, 25, 36, 37, 46, 47.

Sparganium erectum Branched Bur-reed
Burn at Monkstadt; edge of R. Gremiscaig; burn joining Kilmaluag R.; ditch at Aird of Sleat; Allt Port na Cullaidh, Elgol. Rare. 36, 46, 47, 50, 51.

*S. **emersum** Unbranched Bur-reed
Lochs and ditches. Most records from Raasay and Scalpay—check with other *Sparganium* spp. Rare? 35, 41, 53, 55, 62, 63.

S. **angustifolium** Floating Bur-reed
Peaty lochs in hill areas. Locally plentiful. Atl(N). 14, 24-26, 33, 34, 41, 43-47, 51-53, 56, 61, 71.

S. **minimum** Least Bur-reed
Lochs and pools. Less common than above. All records from S Skye—overlooked elsewhere? Con(N). 42, 43, 50, 52-54, 61, 62, 71.

Typha angustifolia Lesser Bulrush
Loch a'Mhuilinn, Scalpay. Check record from Arish Burn, Raasay, which may be this and not **T. latifolia.** Scalpay plants probably introduced. 53, 62.

Eriophorum angustifolium Common Cottongrass
Wet moorland. Common. Mont. All squares.

E. **latifolium** Broad-leaved Cottongrass
Wet moorland, bogs and fens, less acid than above. Missing from Raasay? Rare. Con(N). 36, 41-45, 50-53, 55, 56, 61, 62, 71, 72.

E. **vaginatum** Hare's-tail Cottongrass
Wet moorland. Less common than *E. angustifolium*. Mont. All squares.

Scirpus cespitosus *Trichophorum cespitosum* Deergrass
Wet peaty moorland. Check for ssp. **cespitosus** and ssp. **germanicus.** Very common. Atl. All squares.

S. **maritimus** Sea Club-rush
Edges of salt-marshes. Rare, N and W Skye; commoner in Sleat. Atl. 15, 24, 25, 36, 41, 44, 50, 60, 61, 71.

S. **lacustris** *Schoenoplectus lacutris* Common Club-rush
Plentiful in some lochs. absent from very many more. Local. 24, 34, 41, 43, 44, 46, 47, 50, 51, 53, 56, 60-62.

S. **tabernaemontani** Grey Club-rush
Loch na h'Airde (brackish), on Rubh'an Dunain, 31.

S. **setaceus** *Isolepis setacea* Bristle Club-rush
Muddy paths and tracks. Fairly common. All except 26, 41, 55, 63, 65.

S. **fluitans** *Eleogiton fluitans* Floating Club-rush
In acid lochs and pools, and in burns. Local. Possibly under-recorded in Sleat and NE Skye. Atl. 14, 24-26, 33-35, 41-45, 50, 51, 53, 54, 60-63.

Eleocharis quinqueflora Few-flowered Spike-rush
Boggy moorland. Locally common. Con(N). All squares.

E. **multicaulis** Many-stalked Spike-rush
Wet peaty places. Less common—or under-recorded? Atl. 14, 15, 23-25, 32, 33, 35, 47, 50-53, 55, 60-62, 71, 72.

E. **palustris** Common Spike-rush
Marshes, ditches, and edges of lochs. Common. All squares.

E. **uniglumis** Slender Spike-rush
Bogs, salt-marshes. Easily confused with both of the above; perhaps under-recorded. 34, 41, 43, 52, 53, 62.

Blysmus rufus Saltmarsh Flat-sedge
Salt-marshes. Locally common. Atl(N). 14, 15, 24, 32, 33, 35-37, 43-47, 50-53, 60-62, 71, 72.

Schoenus nigricans Black Bog-rush
Base-rich flushes and bogs; often on wet basic sea cliffs. Locally plentiful. Atl. All except 46, 60, 65.

Rhynchospora alba White Beak-sedge
Boggy moorland. Difficult to identify when not in flower. Commoner in more acid areas. Atl(N). 15, 24, 25, 32-36, 41-43, 46, 50-56, 60-63, 71, 72.

Cladium mariscus Great Fen-sedge
Pool off Brochel road, Raasay; also Rona and Soay. Rare. Atl(S). 41, 54, 65.

Carex laevigata Smooth-stalked Sedge
Allt Camas na Geadaig, Scalpay; woodland at Ord; Raasay. Rare. Atl(S). 50, 53, 60, 61, 71.

C. **distans** Distant Sedge
Salt-marshes and rocks near the sea. Local. Atl(S). 14, 15, 34, 42, 45, 47, 50, 62, 63.

C. **hostiana** Tawny Sedge
Base-rich flushes. Local. Atl. All except 37, 60, 63, 65.

C. **binervis** Green-ribbed Sedge
Moors and rough grassland. Common. Atl. All squares.

C. **lepidocarpa** Long-stalked Yellow-sedge
Wet places on base-rich soils. Occasional. Cont. 14, 15, 33, 35, 42-45, 47, 51-54, 56, 61, 62.

C. **demissa** Common Yellow-sedge
Moors, hills, stony edges of lochs, etc. Locally common. Cont. All except 37, 47, 63, 65.

C. **serotina** Small-fruited Yellow-sedge
Damp places near the sea. Rather local, possibly under-recorded. Con(N). 15, 24, 34, 41, 44, 45, 47, 51-53, 56, 62, 71.

C. **scandinavica**
Edges of runnels in salt-marshes. Probably under-recorded. Local. ArcSA. 24, 35, 45, 52, 62, 71.

C. **extensa** Long-bracted Sedge
Salt-marshes. Probably under-recorded. Local. Atl(S). 24, 33, 34, 44-46, 52, 53, 60-62, 71.

C. **sylvatica** Wood-sedge
One record from grassy shore, others from woods or scrub. Very local, commoner in S Skye. Atl. 25, 35, 43-45, 50-54, 60-62, 71.

C. **rostrata** Bottle Sedge
Lochs, bog pools and ditches. Common. All squares.

C. vesicaria Bladder-sedge
Greshornish; Inverarish, Raasay. Rare. 35, 53.

C. pallescens Pale Sedge
Wet grassland, and in woods (Raasay and Scalpay). Local. All except 37, 47, 63, 65.

C. panicea Carnation Sedge
Wet grassy places, moors and hills. Common. All squares.

C. limosa Bog-sedge
First recorded from Loch an Eilean, Sligachan; now known from wet, peaty loch margins all over the island. Also Raasay and Scalpay. Rare. Con(N). 32, 34, 41-45, 50, 51, 53-55, 61-63, 71, 72.

***C. paupercula** Tall Bog-sedge
Very wet bogs. One pre-1930 record, 42.

C. flacca Glaucous Sedge
Both dry and wet habitats, from near the sea to hills inland. Local. Atl. All except 37, 43, 44, 60, 63, 65.

C. lasiocarpa Slender Sedge
Edges of lochs, or in wet ditches. Rare. Con(N). 43, 44, 46, 50, 54, 61, 62, 71.

C. pilulifera Pill Sedge
Rough grassland, moors. Locally common. Atl(N). All except 37, 60, 63, 65.

C. caryophyllea Spring Sedge
Dry calcareous grassland, Uig; Duntulm; Torrin. First sedge to flower, in May. Rare. 36, 41, 47, 50, 52, 53, 62.

C. nigra Common Sedge
Wet grassland, moors and bogs. Common. All squares.

C. bigelowii Stiff Sedge
Damp stony places on hills; mountain grassland. Healaval Mhor; Cuillin hills; Storr-Quiraing ridge; Sgurr na Coinnich; etc. Locally common. ArcAlp. 24, 32, 42, 45-47, 52, 53, 71, 72.

C. paniculata Greater Tussock-sedge
Boggy moorland, Baravaig, Sleat; also unlocalised records for 23, 24, 32. Rare. Cont. 23, 24, 32, 61.

C. diandra Lesser Tussock-sedge
Wet ground at edge of Loch Fada, 44; also unlocalised records for 47, 51. Rare. Con(N).

C. otrubae False Fox-sedge
Wet ground on or near seashores. Rare. Atl(S). 24-26, 34, 36, 41, 47, 50, 51, 60.

C. arenaria Sand Sedge
Limited by lack of dune areas. Fiskavaig; Glen Brittle beach; Camasunary. Also 24—where? Local. Atl. 24, 33, 42, 51.

C. echinata Star Sedge
Wet moorland and bogs. Common. All squares.

C. remota Remote Sedge
Damp woodland. Portree; Tokavaig; and elsewhere. Very local, commoner in S Skye. Atl. 25, 35, 44, 50, 53, 54, 60-62, 71.

C. curta White Sedge
Edges of lochs and pools; bogs. Rare—or overlooked? Con(N). 14, 15, 24, 25, 32-34, 36, 42-45, 47, 51, 52, 54-56, 61, 71, 72.

C. ovalis Oval Sedge
Rough grassland. Locally common. Con(N). All squares.

C. pauciflora Few-flowered Sedge
Wet moors and bogs. Difficult to identify when not in flower, and may be under-recorded. Commoner in S Skye. Con(N). 32, 34, 35, 42, 43, 46, 50-54, 61-63.

C. pulicaris Flea Sedge
Damp grassland, base-rich flushes, and rock ledges on hills. Common. Atl. All squares.

C. dioica Dioecious Sedge
Base-rich flushes; rock ledges on hills. Local. Mont. All except 23, 35, 37, 63, 65.

Phragmites australis *P. communis* Common Reed
In lochs, ditches and wet places. Local. 14, 15, 24-26, 32-36, 41, 43, 44, 47, 50, 52-54, 60-62.

Molinia caerulea Purple Moor-grass
Wet moorland and mountains. Common. All squares.

Sieglingia decumbens Heath-grass
Moorland; hill grassland. Common. Atl. All squares.

Glyceria fluitans Floating Sweet-grass
Shallow streams, pools and ditches. Local. 14, 15, 24-26, 34-37, 44-47, 50-53, 60-62, 72.

G. declinata Small Sweet-grass
Less common than above—or under-recorded. Atl. 14, 15, 32, 33, 43, 45, 47, 51, 61, 62, 71.

Catabrosa aquatica Whorl-grass
In wet sand or shingle near the sea, not always in the same place. Rare. 24, 32, 42, 51, 56.

***Festuca pratensis** Meadow Fescue
N and W Skye only, so far. Rare—or overlooked elsewhere? 14, 24, 25, 35, 53.

F. arundinacea Tall Fescue
Roadside, Kilbride; Kinloch. Rare. 24, 32, 52, 71.

F. gigantea Giant Fescue
Path to shore, Torrin, 52; also 61, 62. Rare.

F. rubra Red Fescue
Grassland, salt-marshes, mountains. Check whether var. **arenaria** occurs. Common. All except 37, 41, 63, 65.

F. ovina Sheep's-fescue
Dry grassland. Check for ssp. **ovina** and ssp. **tenuifolia**. Common. Aggregate in all squares, spp. **tenuifolia** in 24, 52, 71.

F. vivipara Viviparous Fescue
Moors and hills. Common. All squares.

Lolium perenne Perennial Rye-grass
Hayfields and waste places. Common. All except 23, 41, 63, 65.

L. multiflorum Italian Rye-grass
Lynedale, 35; also 46, 47. Introduced.

Vulpia bromoides Barren Fescue, Squirreltail Fescue
Dry paths, roadsides, waste ground. Rare. Atl. 14, 24, 44, 46, 51, 55, 60, 71, 72.

Puccinellia maritima Common Saltmarsh-grass
Salt-marshes. Locally common. Atl. 23-26, 32-35, 43-45, 50-53, 56, 60-62, 71, 72.

Catapodium marinum Stiff Sand-grass, Sea Fern-grass
Salt-marsh at Caolas Scalpay, 52. Atl(Med).

Poa annua Annual Meadow-grass
Cultivated ground, gardens, moorland and hills. Common. All squares.

Poa alpina Alpine Meadow-grass
Rock ledges. Storr-Quiraing ridge (occasional); Cuillin corries (very rare). ArcAlp. 42, 45, 46, 55.

P. nemoralis Wood Meadow-grass
Several of these records are the mountain form **P. balfourii**—grassy bank of Bealach Beag burn, Storr; Ben Edra; Sgurr Mor. Rare. 24, 35, 36, 44-47, 52, 60, 72.

P. glauca Glaucous Meadow-grass
Mountain rock ledges. Cuillin (rare); Storr-Quiraing ridge (frequent). ArcAlp. 42, 44-47, 54, 55.

P. compressa Flattened Meadow-grass
Wall at Ardvasar, 60. Doubtfully native.

P. pratensis Smooth Meadow-grass
Grassland. Perhaps still under-recorded. All except 34, 37, 41, 44, 55, 63, 65, 71.

P. subcaerulea Spreading Meadow-grass
Damp grassland, including hills. Other records may have been included in *P. pratensis* agg. Local. ArcSA. 36, 44-46, 51-53, 61, 62, 71, 72.

P. trivialis Rough Meadow-grass
Grassland, waste places. Common. All except 37, 47, 54, 63, 65.

Dactylis glomerata Cock's-foot
Grassland, waste places. Common. All squares.

Cynosurus cristatus Crested Dog's-tail
Grassland and cultivated ground. Common. Cont. All except 41, 63, 65.

Melica nutans Mountain Melick
On limestone at Tokavaig; Suardal; on ultrabasic rocks at Geary. Rare. Con(N). 26, 61, 62.

Bromus ramosus *Zerna ramosa* Hairy-brome
In woodland or scrub; sometimes on grassy slopes below coastal cliffs. Rare. Atl(S). 25, 33, 44, 50, 51, 53-55, 61, 62, 71.

***B. sterilis** *Anisantha sterilis* Barren Brome
Walls, waste ground. Raasay, 53; also 60. Introduced?

Bromus mollis agg. Soft-brome
Grassland and waste ground. Occasional. 14, 24-26, 33-37, 44, 45, 47, 50-53, 55, 56, 61, 71, 72.

***B. lepidus** Slender Soft-brome
24 and 53 only. Casual? Introduced.

Brachypodium sylvaticum False-brome
Woodland and scrub. Locally common. All except 34, 37, 63, 65.

***Agropyron caninum** Bearded Couch
Woods. Uncommon, or else overlooked. 32, 33, 36, 51, 52, 61, 62.

A. repens Common Couch
An infuriating weed of cultivated ground; probably still under-recorded. 14, 15, 24-26, 33, 34, 36, 44, 45, 50-53, 60-62, 71, 72.

A. junceiforme Sand Couch
Rare from lack of suitable habitat. Kilbride Point; Glen Brittle beach; Camas Croise, Isle Ornsay. Atl. 36, 42, 61.

Elymus arenarius Lyme-grass
Kilmaluag; Rigg; in both places growing in shingle. Records for 45, 50 need checking. Atl(N). 45, 47, 50, 55.

Koeleria cristata Crested Hair-grass
Grassland near the sea. All records from west side of Skye. Missing or overlooked elsewhere? Rare. 14, 24-26, 32-34, 41, 50.

Trisetum flavescens Yellow Oat-grass
Roadside, Elgol, 51; also 24. Rare—or introduced?

***Helictotrichon pratense** Meadow Oat-grass
Most likely to be found on limestone. Rare. 24, 26, 41, 46, 61, 62.

H. pubescens Hairy Oat-grass
Base-rich grassland. Locally common. 14, 15, 23-26, 32-36, 45-47, 50-56, 61, 62.

Arrhenatherum elatius False Oat-grass
In cultivated ground, often in form **tuberosum** (Onion Couch). Locally too plentiful. All squares.

Holcus lanatus Yorkshire-fog
Poor hayfields, waste ground. Common. All except 41, 63, 65.

H. mollis Creeping Soft-grass
Woods and wet moorland. Locally common, perhaps under-recorded. 14, 15, 24, 26, 33, 35, 36, 44-47, 50-56, 60-62, 71, 72.

Deschampsia cespitosa Tufted Hair-grass
Rough grassland, including hills. Common. All squares.

D. alpina Alpine Hair-grass
Rocks and scree on mountains, usually viviparous. Cuillin hills; Storr; Ben Edra; Blaven; Red Hills. Local. ArcSA. 42, 45, 46, 52.

D. flexuosa Wavy Hair-grass
Moorland. Common. All squares.

D. setacea Bog Hair-grass
Boggy edges of lochs. Loch an Eilean, Sligachan; Loch Buidhe, NW of Heast; Lochain Dubha, by Broadford—Armadale road; also Raasay and 51. Rare. Atl. 43, 51, 53, 61, 62.

Aira praecox Early Hair-grass
On turf dykes and dry bare ground, in spring. Locally common. Atl. All squares.

A. caryophyllea Silver Hair-grass
Dry places and on walls. Less common than above, perhaps still under-recorded. Atl. 14, 15, 24-26, 32-35, 44, 45, 50, 51, 53, 54, 56, 60-62, 72.

A. caryophyllea ssp. **multiculmis**
Introduced. 25, 51, 62, 71, 72.

Ammophila arenaria Marram
Glen Brittle beach, 42. Also (error?) in 37, 47. Rare. Atl.

Calamagrostis epigejos Bush-grass, Wood Small-reed
Grassy slopes or rock crevices, on Jurassic or limestone rocks. An Leac; Rigg; Tokavaig; Suardal; Raasay. Rare. Con(N). 41, 53, 55, 61, 62.

Agrostis canina Brown Bent
Dry acid grassland. Needs separating into ssp. **canina** and ssp. **montana**. Common. All except 37, 47, 54, 63, 65.

A. tenuis Common Bent
Acid grassland. Common. All squares.

A. gigantea Black Bent
Cultivated ground, woods. Portree, 44; Prabost, 45; Dunringell, Kyleakin, 72. Perhaps elsewhere?

A. stolonifera Fiorin, Creeping Bent
Waste ground; salt-marshes. Locally plentiful. All except 37, 55, 63, 65.

Phleum pratense Timothy
Scattered specimens, roadsides and waste ground. Records include **P. bertolonii.** Rare. Probably introduced. 14, 15, 24, 26, 32, 43, 44, 47, 51, 53, 61, 62, 71, 72.

Alopecurus pratensis Meadow Foxtail
Cultivated grassland, road verges. Locally common. Under-recorded in NE Skye and in Sleat? 14, 15, 24-26, 32, 34-36, 44-47, 51-53, 60-62.

A. geniculatus Marsh Foxtail
Wet ground. Local. All except 23, 41, 63, 65.

Anthoxanthum odoratum Sweet Vernal-grass
Grassland, moors and hills. First grass to flower. Common. All squares.

Phalaris arundinacea Reed Canary-grass
Wet ground, and margins of pools and ditches. Dead leaves last the winter, unlike *Phragmites*. Locally plentiful. 14, 15, 24-26, 32, 33, 36, 37, 43-47, 50-53, 60-62.

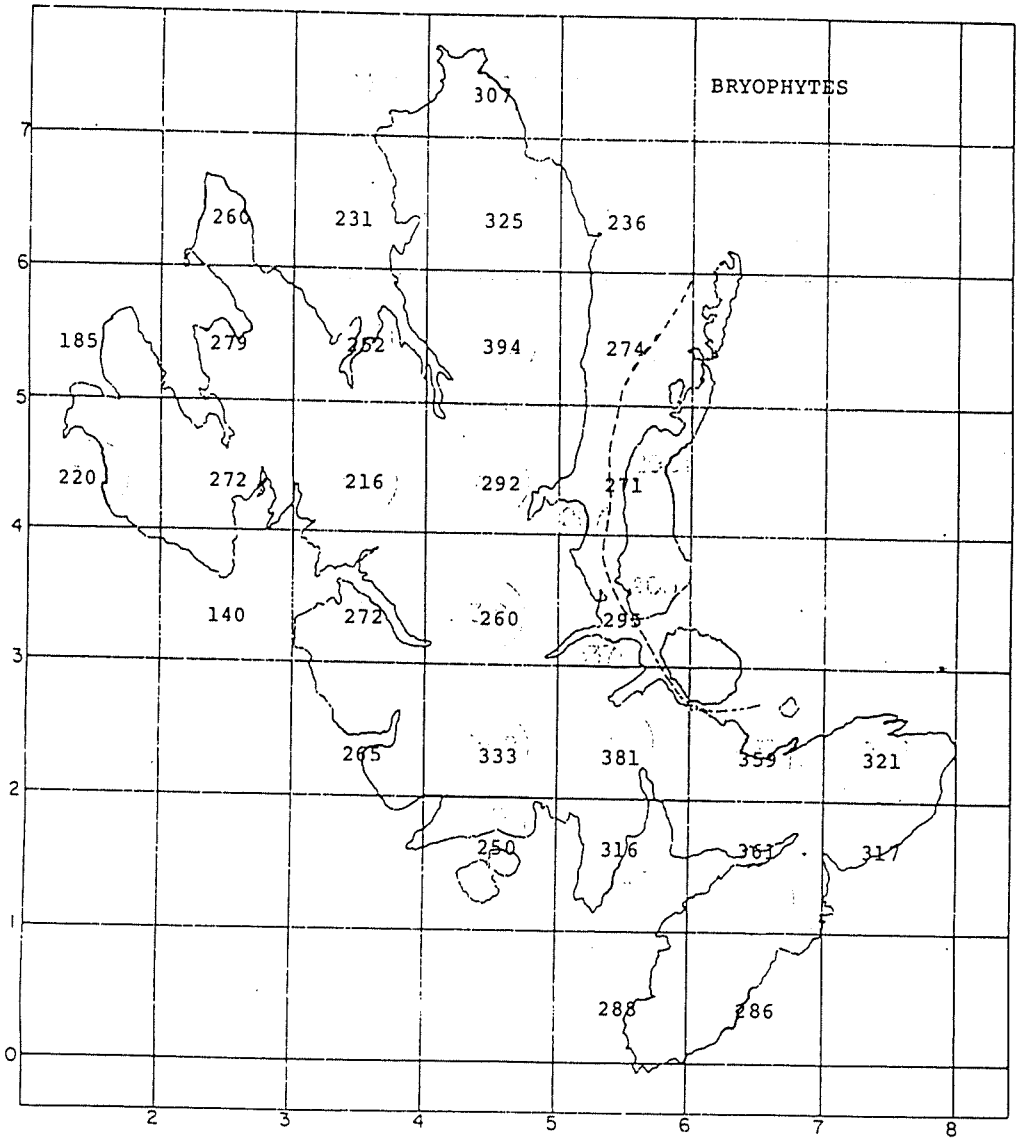
Nardus stricta Mat-grass
Moors and mountains. Common. All squares.

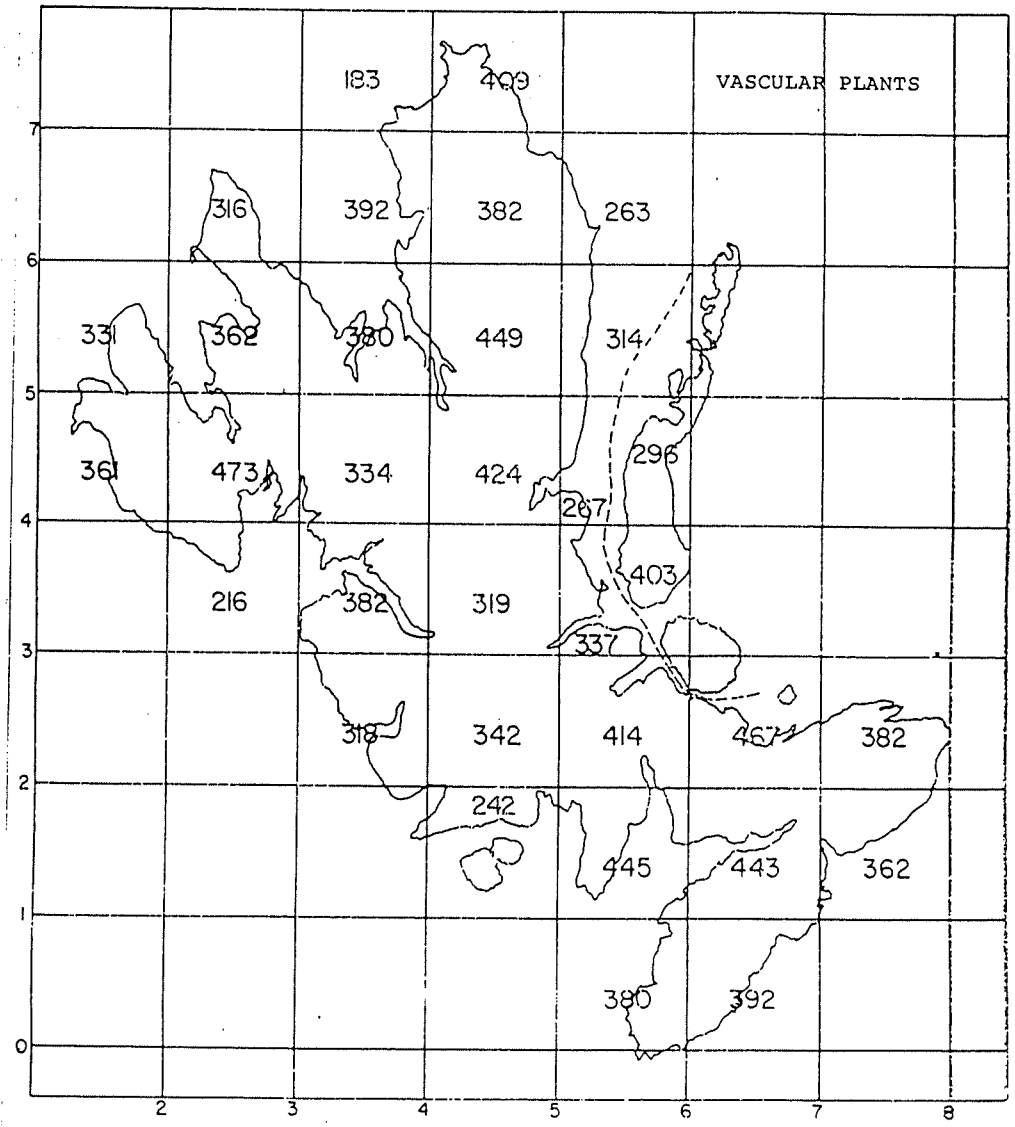
Localities known to the Recorder are given for species with limited distribution, while entries with a square number only, for these species, indicates 'exact location unknown', to date of this note. Every species has been allocated to its appropriate floristic element (a group of species with similar geographical distribution generally within Europe, following Birks (1973, ch.6.)) These have been abbreviated as follows—

Atl(S). = Atlantic (Southern), or Southern Sub-Atlantic; Atl(N). = Atlantic (Northern), or Northern Sub-Atlantic; Atl. = Atlantic, or Sub-Atlantic, widespread; Atl(Med). = Mediterranean Atlantic; Con(S). = Southern Continental; Con(N). = Northern Continental; Cont. = Continental, widespread; Mont. = Northern Montane; ArcSA = Arctic-Subarctic; ArcAlp = Arctic-Alpine; Alpine; North American; Endemic; Int. = Introduced; Un. = Unclassified. Those with no entry under Floristic Element have been classified as 'Widespread'.

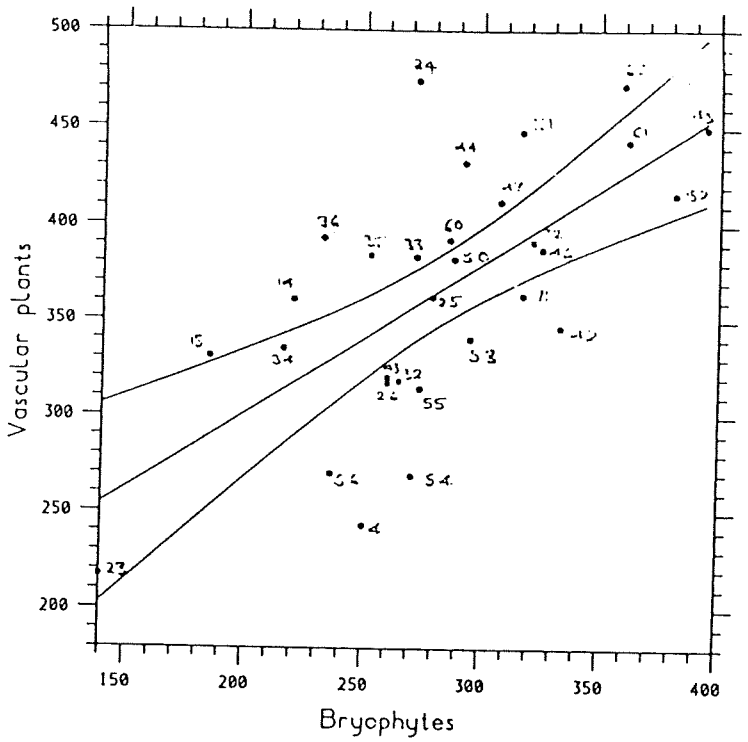
TABLE 6.13. *Percentage representation of floristic elements in the native vascular plant flora of the Isle of Skye*

Floristic Element	Total number of species	Percentage of total native flora
1. Atlantic		
(*a*) Southern Atlantic	11	1.8
(*b*) Northern Atlantic	6	1.0
(*c*) Widespread Atlantic	35	5.9
(*d*) Mediterranean Atlantic	1	0.2
Total	53	8.9
2. Sub-Atlantic		
(*a*) Southern Sub-Atlantic	8	1.4
(*b*) Northern Sub-Atlantic	6	1.0
(*c*) Widespread Sub-Atlantic	102	17.3
Total	116	19.7
3. Continental		
(*a*) Southern Continental	18	3.1
(*b*) Northern Continental	73	12.4
(*c*) Widespread Continental	29	4.9
Total	120	20.4
4. Northern–Montane	14	2.4
5. Arctic–Subarctic	14	2.4
6. Arctic–Alpine	39	6.6
7. Alpine	1	0.2
8. Widespread species	229	38.7
9. North American	1	0.2
10. Endemic	1	0.2
11. Unclassified species	2	0.3


BRYOPHYTES
307
260
231
325
236
185
279
252
394
274
220
272
216
292
271
140
272
260
295
265
333
381
359
321
250
316
361
317
288
286
0
1
2
3
4
5
6
7
2
3
4
5
6
7
8


VASCULAR PLANTS
183
409
316
392
382
263
331
362
380
449
314
361
473
334
424
296
267
403
216
382
319
337
318
342
414
467
382
242
445
443
362
380
392
0
1
2
3
4
5
6
7
2
3
4
5
6
7
8

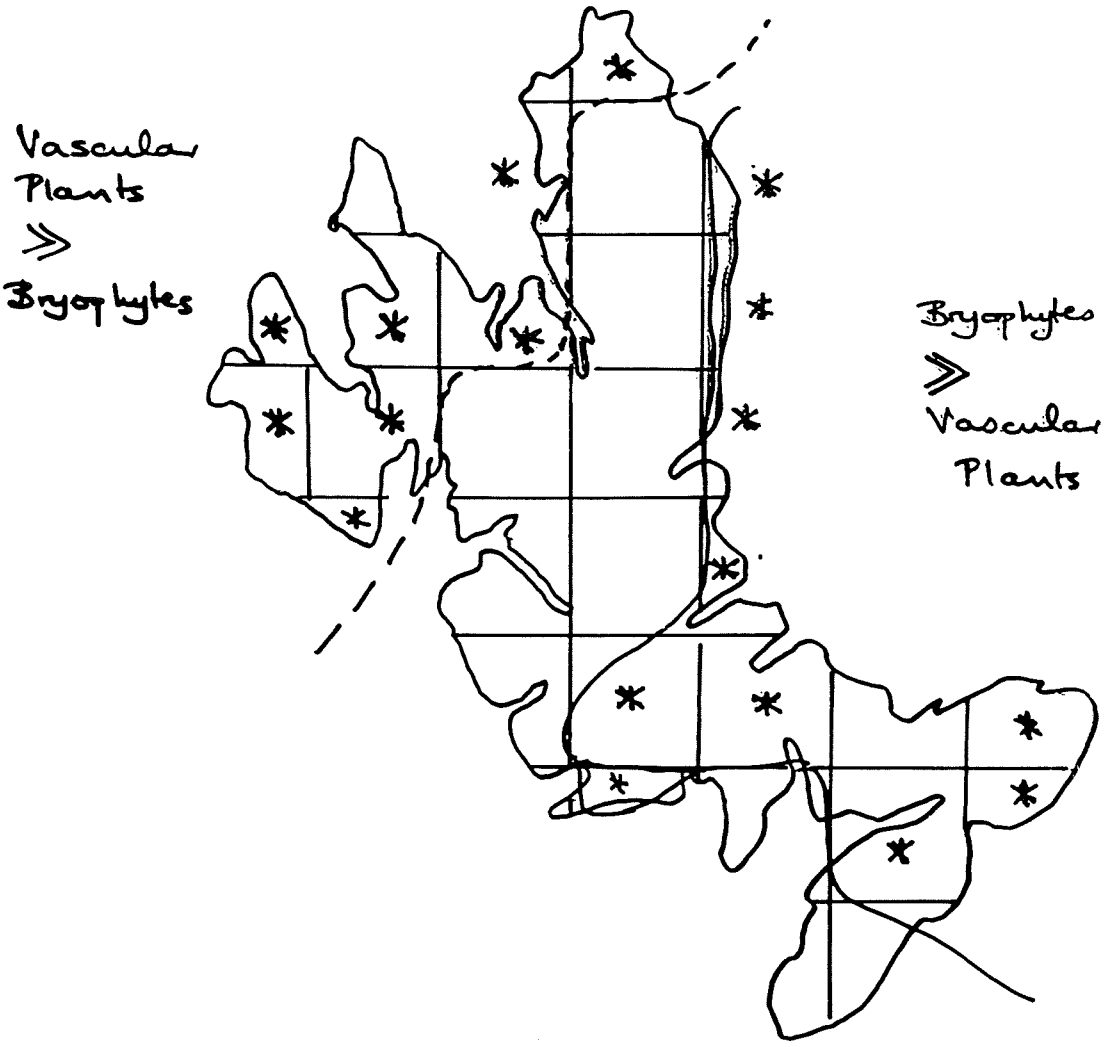
Linear regression



Isle of Skye — Grid Square Data

Vascular plant — bryophyte statistics

	Isle of Skye	Cambridgeshire
Mean vasc. plants	366	414
Mean bryophytes per grid square	282	68
	Vasc plants = 34·51 + 1·17 bryophytes	Vasc plants = 162·55 + 3·69 bryophytes
Vasc plant/ bryophyte	1.29	6·09


Vascular Plants ≫ Bryophytes
Bryophytes ≫ Vascular Plants

Present-day vegetation patterns

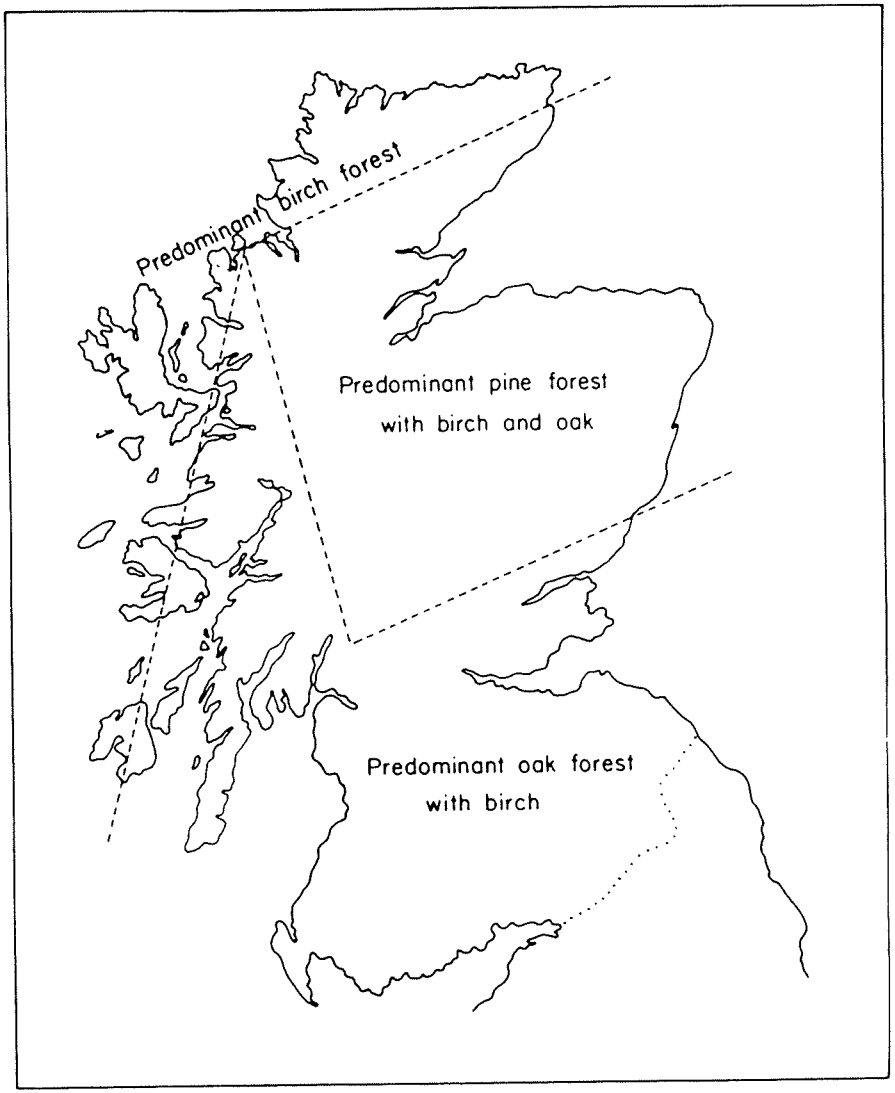


Figure 7. The position of the Inner Hebrides in relation to the potential woodland zones of McVean and Ratcliffe (1962).

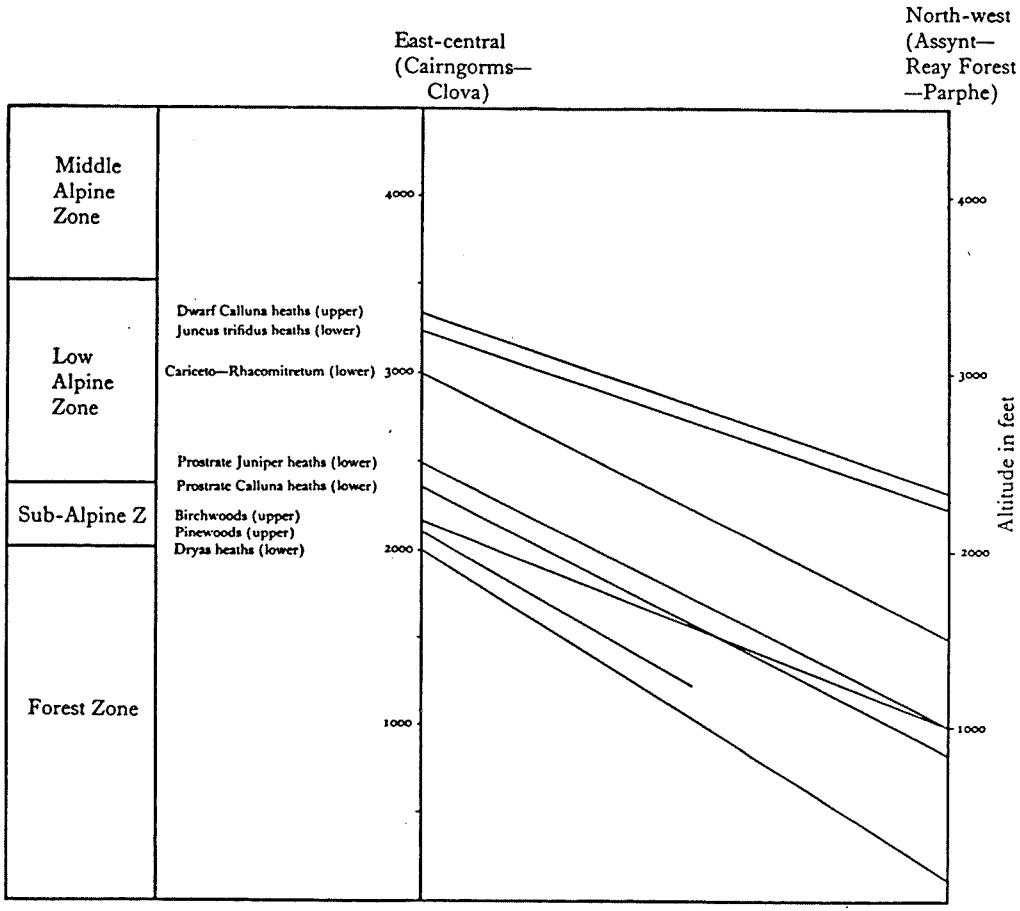


Fig. 26. The altitudinal descent of vegetation types towards the north-west of the Highlands. Upper or lower limits are indicated in brackets

Pronounced regional changes in the altitudinal limits of noda are mentioned under the particular types, and some indication is also given in the regional vegetation charts (Figs. 31–36). Even on the same hill the altitudinal limits of any vegetation type may vary greatly according to differences in exposure, so that only general trends can be indicated. Again, the sudden increase in exposure as the actual coast is reached gives a further sharp descent in altitudinal limits compared with hills only a few miles inland, so that the characteristic zonation on the hills of the area representing the North-west Highlands does not indicate the minimum limits which are attained in the region.

Only a few noda which show their natural upper and/or lower limits can be considered in tracing the altitudinal descent of vegetation. Cariceto-Rhacomitretum gives quite a good datum in all parts of the Highlands, although *Rhacomitrium lanuginosum* itself shows a great altitudinal expansion in the north-west and communities dominated by this moss occur almost at sea-level. On the whole, life-form zones or broad vegetation classes such as dwarf *Calluna* heath illustrate this trend better than individual noda. The levels shown in the diagram are intended to be only approximate and are based merely on general observations and impressions.

4. CONSPECTUS OF THE PLANT COMMUNITIES

1. EPIPETRETEA LICHENOSA Massé 1964
RHIZOCARPETALIA Massé 1964
Parmelion saxatilis Massé 1964
Hedwigia ciliata–Parmelia saxatilis Association

2. THLASPIETEA ROTUNDIFOLII Braun-Blanquet 1947
ANDROSACETALIA ALPINAE Braun-Blanquet 1926
Androsacion alpinae Braun-Blanquet 1926
Scree Communities
Koenigia islandica Scree Community
River gravel Communities

3. ASPLENIETEA RUPESTRIS Braun-Blanquet 1934
POTENTILLETALIA CAULESCENTIS Braun-Blanquet 1926
Potentillion caulescentis Braun-Blanquet 1926
Asplenium marinum–Grimmia maritima Association
Asplenium trichomanes–Fissidens cristatus Association

4. CHENOPODIETEA (Braun-Blanquet 1951) Lohmeyer, J. Tüxen & R. Tüxen 1961
POLYGONO-CHENOPODIETALIA (R. Tüxen & Lohmeyer 1950) J. Tüxen 1961
Weed Communities

5. PLANTAGINETEA MAJORIS R. Tüxen & Preising 1950
PLANTAGINETALIA MAJORIS R. Tüxen (1947) 1950
Lolio–Plantaginion Sissingh 1969
Lolium perenne–Plantago major Association

6. ISOETO-NANOJUNCETEA Braun-Blanquet & R. Tüxen 1943
NANOCYPERETALIA Klika 1935
Nanocyperion flavescentis W. Koch 1926
Isolepis setacea–Blasia pusilla Communities

7. AMMOPHILETEA Braun-Blanquet & R. Tüxen 1943
ELYMO-AMMOPHILETALIA ARENARIAE Géhu & Géhu 1969
Agropyrion Boreoatlanticum Géhu & Géhu 1969
Fore-dune Communities
Ammophilion Borealis (R. Tüxen 1955) Géhu & Géhu 1969
Grey dune Turfs

8. ASTERETEA TRIPOLIUM Westhoff & Beeftink 1962
GLAUCETO-PUCCINELLIETALIA Beeftink & Westhoff 1962
Puccinellion maritimae (Christiansen 1927 *pro parte*) R. Tüxen 1937
Puccinellietum maritimae Association (Warming 1890) Christiansen 1927
Puccinellia maritima–Ascophyllum nodosum Subassociation
Puccinellia maritima–Festuca rubra Subassociation
Armerion maritimae Braun-Blanquet & De Leeuw 1936
Juncus gerardii–Carex extensa Association
Armeria maritima–Grimmia maritima Association

9. CAKILETEA MARITIMAE R. Tüxen & Preising 1950
CAKILETALIA MARITIMAE R. Tüxen & Preising in Oberdorfer 1949
Atriplicion littoralis (Nordhagen 1940) R. Tüxen 1950
Atriplex glabriuscula–Rumex crispus Association

10. LITTORELLETEA Braun-Blanquet & R. Tüxen 1943
LITTORELLETALIA W. Koch 1926
Littorellion uniflorae W. Koch 1926
Littorella uniflora–Lobelia dortmanna Association

11. POTAMETEA R. Tüxen & Preising 1942
MAGNOPOTAMETALIA Den Hartog & Segal 1964
Nymphaeion albae Oberdorfer 1957
Potamogeton natans–Nymphaea alba nodum
PARVOPOTAMETALIA Den Hartog & Segal 1964
Callitricho–Batrachion Den Hartog & Segal 1964
River Communities

12. PHRAGMITETEA R. Tüxen & Preising 1942
PHRAGMITETALIA EUROSIBIRICA (W. Koch 1926) R. Tüxen & Preising 1942
Phragmition communis W. Koch 1926
Brackish Water Communities
Schoenoplectus lacustris–Phragmites communis Association
Phragmites communis–Equisetum fluviatile Subassociation
Schoenoplectus lacustris–Equisetum fluviatile Subassociation
Magnocaricion elatae W. Koch 1926
Carex rostrata–Menyanthes trifoliata Association
Glycerio–Sparganion Braun-Blanquet & Sissingh 1942
Oenanthe crocata Communities

13. SCHEUCHZERIO-CARICETEA FUSCAE (Nordhagen 1936) R. Tüxen 1937
SCHEUCHZERIETALIA PALUSTRIS Nordhagen 1936
Rhynchosporion albae W. Koch 1926
Eriophorum angustifolium–Sphagnum cuspidatum Association
Caricion lasiocarpae Vanden Berghen 1949
Carex lasiocarpa–Menyanthes trifoliata Association
Carex rostrata–C. limosa nodum
CARICETALIA FUSCAE (W. Koch 1926) Nordhagen 1936
Caricion canescentis–fuscae (W. Koch 1926) Nordhagen 1936
Trichophorum cespitosum–Carex panicea Association
Molinia caerulea–Myrica gale Association
Sphagneto–Juncetum effusi Association McVean & Ratcliffe 1962
Carex–Sphagnum recurvum nodum

Sphagno–Tomenthypnion Dahl 1956
Carex rostrata–Aulacomnium palustre Association
TOFIELDIETALIA Preising in Oberdorfer 1949
Eriophorion latifoliae Braun-Blanquet & R. Tüxen 1943
Carex rostrata–Scorpidium scorpioides Association
Carex panicea–Campylium stellatum Association
Eriophorum latifolium–Carex hostiana Association
Schoenus nigricans Association
Carex–Saxifraga aizoides nodum

14. OXYCOCCO-SPHAGNETEA Braun-Blanquet & R. Tüxen 1943
ERICETALIA TETRALICIS Moore (1964) 1968
Ericion tetralicis Schwickerath 1933
Trichophoreto–Callunetum Association McVean & Ratcliffe 1962
Molinieto–Callunetum Association McVean & Ratcliffe 1962
SPHAGNETALIA MAGELLANICI Moore (1964) 1968
Erico–Sphagnion Moore (1964) 1968
Trichophoreto–Eriophoretum Association McVean & Ratcliffe 1962
Calluneto–Eriophoretum Association McVean & Ratcliffe 1962

15. MONTIO-CARDAMINETEA Braun-Blanquet & R. Tüxen 1943
MONTIO–CARDAMINETALIA Pawłowski 1928
Cardamino–Montion Braun-Blanquet 1925
Philonoto–Saxifragetum stellaris Association Nordhagen 1943
Koenigia islandica–Carex demissa nodum
Anthelia julacea banks
Cratoneurion commutati W. Koch 1928
Cratoneuron commutatum–Saxifraga aizoides nodum
Saxifragetum aizoidis Association McVean & Ratcliffe 1962

16. MOLINIO-ARRHENATHERETEA R. Tüxen 1937
MOLINIETALIA COERULEAE W. Koch 1926
Filipendulo–Petasition Braun-Blanquet 1947
Juncus acutiflorus–Filipendula ulmaria Association
ARRHENATHERETALIA Pawłowski 1928
Cynosurion cristati R. Tüxen 1947
Centaureo–Cynosuretum Association Braun-Blanquet & R. Tüxen 1952
Maritime grassland nodum

17. ELYNO–SESLERIETEA Braun-Blanquet 1948
ELYNO–DRYADETALIA Braun-Blanquet 1948

Kobresio–Dryadion Nordhagen (1936) 1943
Dryas octopetala–Carex flacca Association

18. CARICETEA CURVULAE Braun-Blanquet 1948
CARICETALIA CURVULAE Braun-Blanquet 1926
Arctostaphyleto–Cetrarion nivalis Dahl 1956
Cariceto–Rhacomitretum lanuginosi Association McVean & Ratcliffe 1962
Festuca ovina–Luzula spicata nodum
Rhacomitreto–Callunetum Association McVean & Ratcliffe 1962
Juniperus nana nodum
Rhacomitreto–Empetretum Association McVean & Ratcliffe 1962
Alchemilla alpina–Vaccinium myrtillus nodum

19. SALICETEA HERBACEAE Braun-Blanquet 1947
DESCHAMPSIETO–MYRTILLETALIA Dahl 1956
Nardeto–Caricion bigelowii (Nordhagen 1936) Dahl 1956
Nardus stricta–Vaccinium myrtillus Association

20. NARDO–CALLUNETEA Preising 1949
NARDETALIA (Oberdorfer 1949) Preising 1949
Nardo–Galion saxatilis Preising 1949
Agrosto–Festucetum (species-poor) Association McVean & Ratcliffe 1962
Alchemilleto–Agrosto–Festucetum Association McVean & Ratcliffe 1962
Agrosto–Festucetum (species-rich) Association McVean & Ratcliffe 1962
Dwarf herb nodum McVean & Ratcliffe 1962
Nardo–Juncetum squarrosi Association
CALLUNO–ULICETALIA (Quantin 1935) R. Tüxen 1937
Ericion cinereae Böcher 1943
Callunetum vulgaris Association McVean & Ratcliffe 1962
Calluna vulgaris–Sieglingia decumbens Association
Calluna vulgaris–Arctostaphylos uva-ursi nodum
Myrtillion boreale Böcher 1943
Vaccineto–Callunetum hepaticosum Association McVean & Ratcliffe 1962

21. BETULO–ADENOSTYLETEA Braun-Blanquet 1948
ADENOSTYLETALIA Braun-Blanquet 1931
Dryoptero–Calamagrostidion purpureae Nordhagen 1943
Luzula sylvatica–Vaccinium myrtillus Association
Mulgedion alpini Nordhagen 1943
Luzula sylvatica–Silene dioica Association
Betula pubescens–Cirsium heterophyllum Association
Sedum rosea–Alchemilla glabra Association

22. ALNETEA GLUTINOSAE Braun-Blanquet & R. Tüxen 1943
ALNETALIA GLUTINOSAE R. Tüxen 1937
Alnion glutinosae (Malcuit 1929) Meijer-Drees 1936
Alnus glutinosa Woods

23. QUERCETEA ROBORI–PETRAEAE Braun-Blanquet & R. Tüxen 1943
QUERCETALIA ROBORI–PETRAEAE R. Tüxen (1931) 1937
Quercion robori-petraeae (Malcuit 1929) Braun-Blanquet 1932
Betula pubescens–Vaccinium myrtillus Association
Corylus avellana–Oxalis acetosella Association
Oxalis acetosella–Rhytidiadelphus loreus Association
Hymenophyllum wilsonii–Isothecium myosuroides Association
Open Boulder Association

24. QUERCO–FAGETEA Braun-Blanquet & Vlieger 1937
FAGETALIA SYLVATICAE Pawłowski 1928
Fagion sylvaticae R. Tüxen & Diemont 1936
Fraxinus excelsior–Brachypodium sylvaticum Association

25. EPIPHYTIC COMMUNITIES
Epiphytes of Alnus glutinosa Woods
Epiphytes of Betula pubescens–Vaccinium myrtillus Association
Epiphytes of Corylus avellana–Oxalis acetosella Association
Decaying Log Communities

26. LIMESTONE PAVEMENT COMMUNITIES

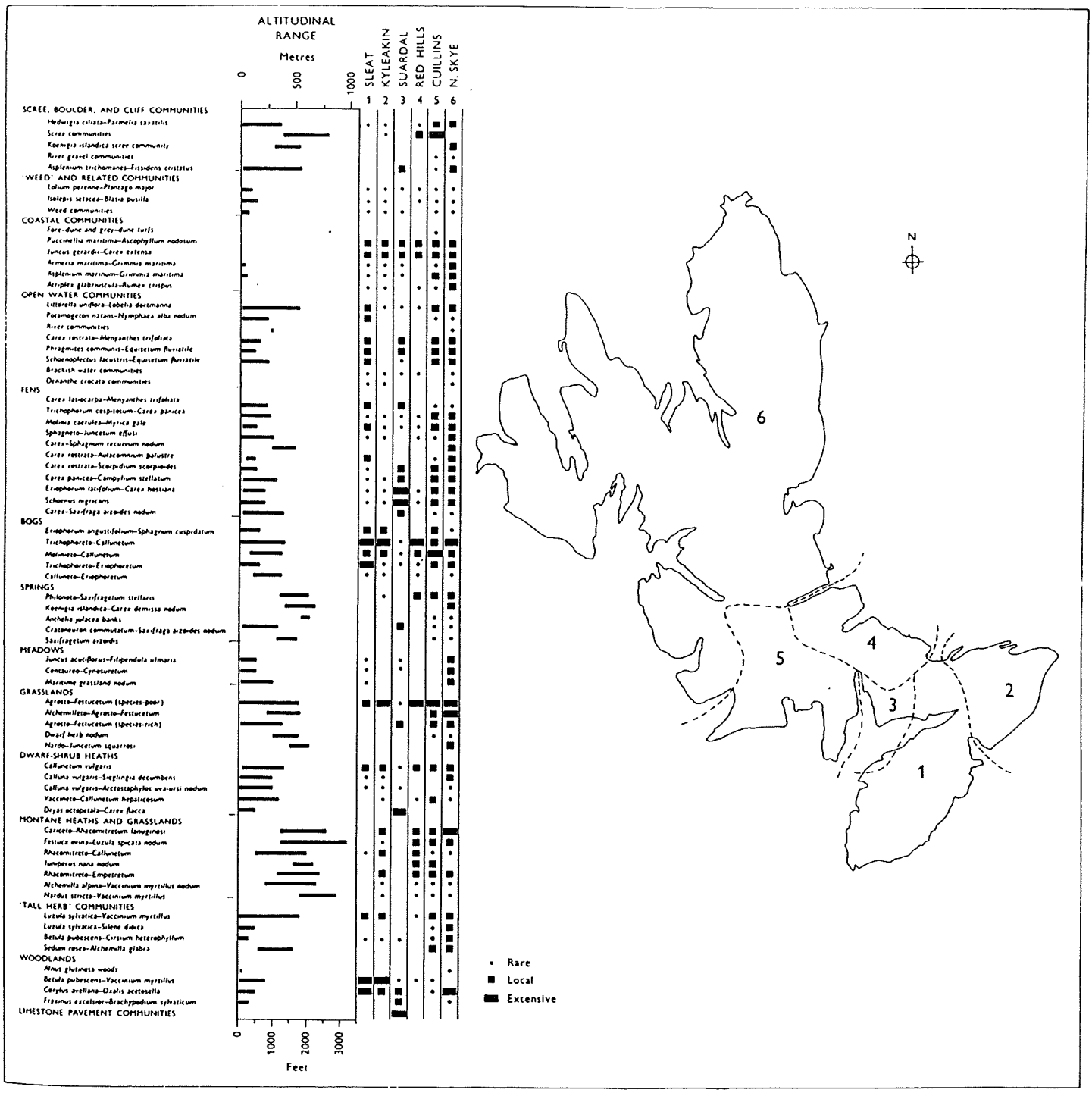


Figure 5. Present distribution of the principal vegetational types in the six regions of Skye. The nomenclature of the vegetational types follows Chapter 4, and the terms rare, local, and extensive are defined in Chapter 5.

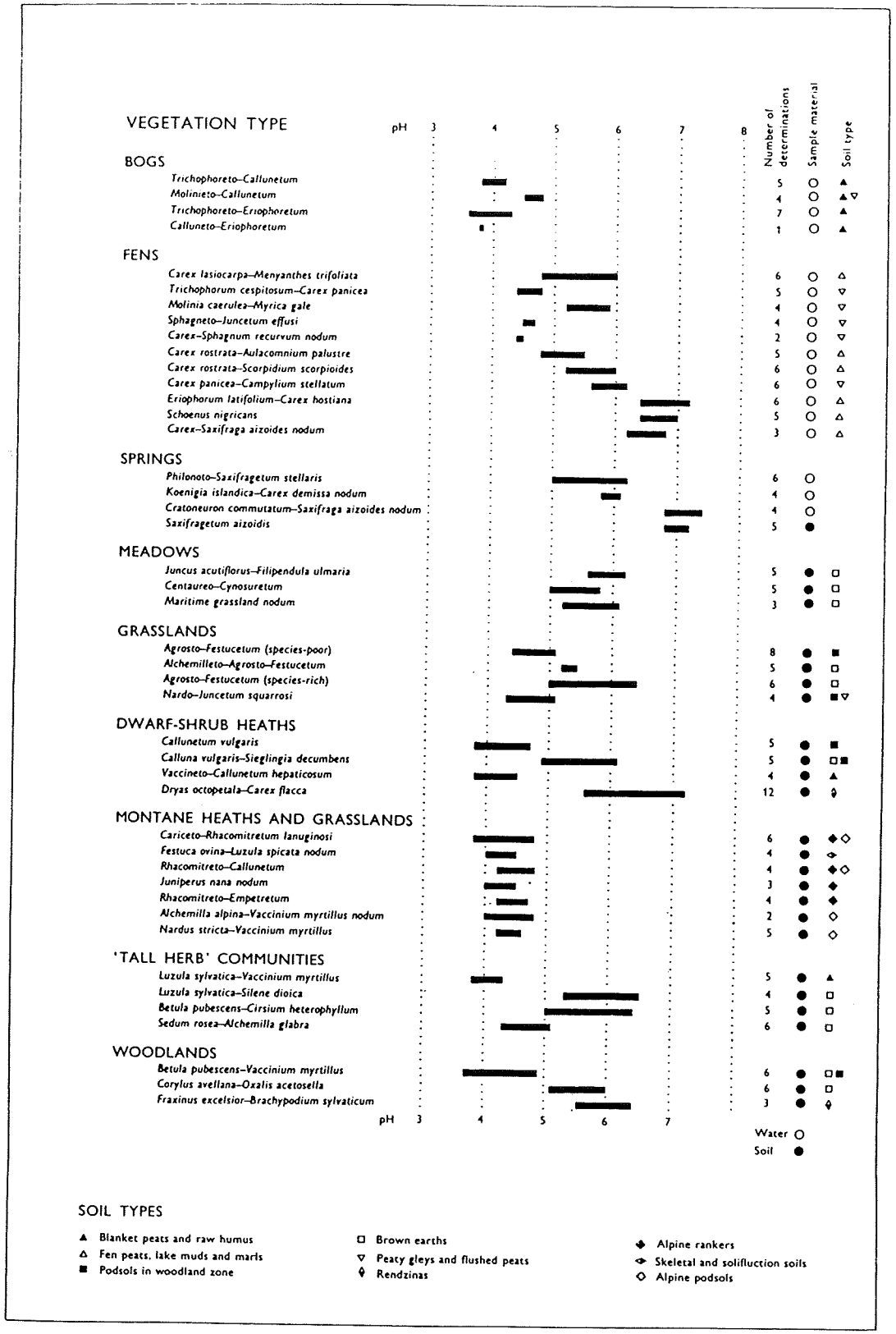


Figure 8. The range of pH values for soils or water from the principal vegetational types on Skye. The number of determinations, the material sampled, and the soil type are also shown.

TABLE 5.2

1. 'SPECIES-POOR SERIES'

Community	Soil type	Soil pH	Rock type	Altitudinal range (feet)	Mean no. of species per relevé
Luzula sylvatica–Vaccinium myrtillus	Raw humus	3.8–4.3	Granite, sandstone, gabbro	50–1700	30
Betula pubescens–Vaccinium myrtillus	Humus, podsols or brown earths	3.7–4.9	Granite, sandstone	50–800	38
Callunetum vulgaris	Iron-humus podsols	3.8–4.7	Granite, sandstone, gabbro, basalt	100–1600	17
Agrosto–Festucetum (species-poor)	Podsols or skeletal brown earths	4.4–5.1	Granite, sandstone, gabbro, basalt	30–1750	20

2. 'SPECIES-RICH SERIES'

Community	Soil type	Soil pH	Rock type	Altitudinal range (feet)	Mean no. of species per relevé
'Tall herb' communities	Irrigated brown earths	5.5–6.9	Basalt, limestone, gabbro	50–1600	45
Corylus avellana–Oxalis acetosella	Irrigated brown earths	5.1–6.0	Basalt, limestone, gabbro, sandstone	50–500	40
Calluna vulgaris–Sieglingia decumbens	Brown earths	4.9–6.1	Basalt, limestone	75–1000	33
Agrosto–Festucetum (species-rich and Alchemilleto–)	Brown earths	5.0–6.4	Basalt, limestone	25–1800	34

Blanket-bog and fen ('mire') vegetation

TABLE 4.17

Class	SCHEUCHZERIO-CARICETEA FUSCAE						
Order	SCHEUCHZERIETALIA PALUSTRIS						
Alliance	**Rhynchosporion albae**						
Association	*Eriophorum angustifolium–Sphagnum cuspidatum*						
	1	2	3	4	5		
Reference Number	B68 228	B67 085A	B68 056A	B68 311A	B66 001		
Map Reference	676 203	516 193	488 302	748 258	423 212		
Altitude (feet)	200	150	25	100	600		
Cover (per cent)	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	C	D
Carex limosa	5	.	.	.	×	II	1.3
Eleocharis multicaulis	3	2	.	.	.	II	1.3
Eriophorum angustifolium	6	6	7	7	×	V	6.5
Narthecium ossifragum	.	4	4	3	×	IV	3.8
Potamogeton polygonifolius	.	4	2	.	.	II	1.5
Rhynchospora alba	4	3	4	6	.	IV	4.3
Drosera anglica	3	3	3	1	×	V	2.5
D. rotundifolia	2	3	3	3	×	V	3.8
Menyanthes trifoliata	4	1	5	.	×	IV	2.5
Utricularia minor	4	.	2	.	.	II	1.5
Sphagnum cuspidatum	8	6	7	7	×	V	7.0
S. magellanicum	2	.	.	3	×	III	1.3
S. palustre	2	3	4	.	×	IV	2.3
S. plumulosum	.	2	.	.	×	II	0.5
S. pulchrum	5	2	.	.	.	II	1.8
**S. subsecundum*	2	6	4	.	×	IV	3.0
Gymnocolea inflata	.	1	2	.	.	II	0.8
Total number of species (21)	15	15	12	8	12		

Mean number of species per relevé = 12·4.

* var. *auriculatum* in 1, 2, 3 and 5.

ADDITIONAL SPECIES IN LIST

1. *Carex pauciflora* 2, *Juncus kochii* 1.
2. *Schoenus nigricans* 2.
4. *Cladopodiella fluitans* 1.

LOCALITIES

1. West of Loch Airigh na Saorach; 2. Camasunary; 3. Loch Sligachan; 4. Kyleakin; 5. Sgùrr Dearg.

TABLE 4.18

Class: SCHEUCHZERIO-CARICETEA FUSCAE
Order: SCHEUCHZERIETALIA PALUSTRIS
Alliance: **Caricion lasiocarpae**

Association	*Carex lasiocarpa–Menyanthes trifoliata*								*Carex rostrata–Carex limosa nodum*		
	1	2	3	4	5	6			7	8	
Reference number	B68	B68	B68	B68	B68	B68			B68	B68	
Map Reference	226 678	223 679	010 656	011 656	016 574	064 494			250 612	174 220	
Altitude (feet)	206 150	205 150	113 350	113 350	018 200	487 450			203 50	412 800	
Cover (per cent)	80	100	75	90	75	100			100	100	
Plot area (square metres)	4	4	4	4	4	4	C	D	4	4	D
Equisetum fluviatile	3	5	2	4	.	3	V	2.8	3	3	3.0
Molinia caerulea	.	2	.	1	.	.	II	0.5	.	.	
Carex echinata	.	.	2	2	.	3	III	1.2	.	.	
C. lasiocarpa	9	8	8	8	8	3	V	7.3	.	.	
C. limosa	3	5	+	2	.	2	V	2.2	4	3	3.5
C. nigra	2	3	3	2	3	4	V	2.8	.	2	1.0
C. rostrata	.	2	3	5	5	8	V	3.8	8	9	8.5
Eriophorum angustifolium	.	1	.	2	.	.	II	0.5	.	5	2.5
Juncus articulatus	.	.	.	.	3	1	I	0.7	3	.	1.5
J. kochii	5	4	3	2	.	.	IV	2.3	4	2	3.0
Potamogeton polygonifolius	.	.	3	3	3	.	III	1.5	.	.	
Sparganium minimum	.	.	.	+	.	.	I	0.2	4	.	2.0
Triglochin palustre	.	.	.	.	3	.	I	0.5	+	.	0.5
Drosera rotundifolia	.	.	.	2	3	.	I	0.8	.	.	
Galium palustre	.	.	1	1	.	3	III	0.8	.	.	
Menyanthes trifoliata	5	2	5	3	4	4	V	3.8	4	5	4.5
Pedicularis palustris	.	.	1	2	.	.	II	0.5	.	.	
Potentilla palustris	.	.	3	1	.	4	III	1.3	1	.	0.5
Ranunculus flammula	.	.	3	2	2	.	III	1.2	+	1	1.0
Acrocladium giganteum	.	.	.	.	.	3	I	0.5	2	.	1.0
Drepanocladus fluitans	.	.	2	.	2	.	II	0.7	.	.	2.0
Scorpidium scorpioides	.	.	.	.	3	2	II	0.8	4	.	2.0
Sphagnum palustre	5	2	4	.	.	.	III	1.8	.	4	2.0
S. recurvum	3	3	4	.	.	.	III	1.7	.	6	3.0
**S. subsecundum*	.	4	3	4	2	.	IV	2.2	3	.	1.5
Total number of species (43)	12	12	19	21	12	15			15	13	

* var. *inundatum* in 2, 3, 4, and 7.

Mean number of species per relevé = 15.2.
Total number of species in association = 38.

Mean number of species per relevé = 14.
Total number of species in *nodum* = 20.

ADDITIONAL SPECIES IN LIST

1. *Eleocharis multicaulis* 3, *Eriocaulon septangulare* 1, *Utricularia minor* 2, *Sphagnum cuspidatum* 4.
3. *Agrostis stolonifera* +, *Carex dioica* 3.
4. *Potentilla erecta* 2, *Succisa pratensis* 2, *Viola palustris* 2.
6. *Carex curta* 3, *C. diandra* 4, *C. panicea* 2, *Mentha aquatica* 2.
7. *Utricularia vulgaris* agg. 3, *Drepanocladus revolvens* 1.
8. *Narthecium ossifragum* 3, *Polytrichum commune* 2, *Sphagnum squarrosum*, 3.

LOCALITIES

1, 2. Lochain Dubha; 3, 4. Loch Meodal; 5. Loch Aruisg; 6. Loch Fada; 7. Loch Cill Chriosd; 8. Ollisdal.

TABLE 4.19

Class	SCHEUCHZERIO–CARICETEA FUSCAE
Order	CARICETALIA FUSCAE
Alliance	**Caricion canescentis–fuscae**
Association	*Trichophorum cespitosum–Carex panicea*

	1	2	3	4	5	6	7	8		
Reference Number	B68 160	B68 112	B68 125	B68 209	B68 097	B67 032	B68 310	B67 053		
Map Reference	243 455	390 420	510 565	398 336	395 645	317 328	494 282	443 256		
Altitude (feet)	200	500	700	350	400	250	150	900		
Aspect (degrees)	90	135	90	.	180	90	270	315		
Slope (degrees)	3	5	5	o.N.	5	3	5	5		
Cover (per cent)	100	100	100	100	100	100	100	75		
Plot area (square metres)	4	4	4	4	4	4	4	4	C	D
Calluna vulgaris	5	3	.	2	4	.	3	.	IV	2.2
Erica tetralix	4	5	4	6	5	4	4	3	V	4.4
Myrica gale	5	.	5	4	.	.	6	.	III	2.5
Equisetum palustre	.	1	2	.	3	.	2	.	III	1.0
Selaginella selaginoides	2	2	.	2	+	.	.	.	III	0.9
Deschampsia flexuosa	.	.	2	.	.	1	.	.	II	0.4
Molinia caerulea	5	5	3	4	4	2	5	4	V	4.0
Carex demissa	.	2	2	.	.	3	.	.	II	0.9
C. echinata	4	5	5	5	5	2	5	3	V	4.3
C. nigra	3	.	.	+	4	.	.	.	II	1.0
C. panicea	.	1	2	4	4	2	4	2	V	2.4
C. pulicaris	2	.	3	.	3	.	.	.	II	1.0
C. rostrata	.	.	3	.	.	.	4	.	II	0.9
Eriophorum angustifolium	4	2	5	6	5	6	2	3	V	4.1
Juncus squarrosus	.	.	.	.	.	1	.	3	II	0.5
Narthecium ossifragum	.	4	3	4	3	3	3	8	V	3.5
Schoenus nigricans	.	.	3	.	.	.	6	.	II	1.3
Trichophorum cespitosum	7	7	7	7	8	8	7	5	V	7.0
Drosera rotundifolia	2	2	2	2	1	2	3	.	V	1.6
Euphrasia scottica	.	1	1	.	1	.	.	.	II	0.4
Pedicularis sylvatica	.	2	.	.	.	2	.	1	II	0.6
Pinguicula vulgaris	.	.	1	.	2	1	.	2	III	0.8
Polygala serpyllifolia	1	2	.	.	.	2	.	1	III	0.8
Potentilla erecta	2	1	2	1	2	2	1	.	V	1.4
Succisa pratensis	3	3	2	.	3	.	.	.	III	1.4
Breutelia chrysocoma	.	2	3	.	3	.	.	2	III	1.3
**Campylopus atrovirens*	.	.	.	1	4	3	.	4	III	1.5
C. setifolius	.	.	1	3	.	4	.	.	II	1.0
C. shawii	.	.	.	.	3	3	.	.	II	0.8
†*Hypnum cupressiforme*	3	.	.	1	.	.	.	.	II	0.5
Rhacomitrium lanuginosum	.	.	.	.	.	3	.	3	II	0.8
Sphagnum compactum	.	.	2	.	3	3	3	5	IV	2.0
S. palustre	3	4	3	4	3	3	+	.	V	2.6
S. plumulosum	3	4	.	.	3	3	2	+	IV	2.0
S. rubellum	4	2	.	1	.	2	.	.	III	1.1
‡*S. subsecundum*	.	3	.	5	5	.	4	2	IV	2.4
S. tenellum	.	.	1	.	.	2	.	.	II	0.4
Pleurozia purpurea	.	.	+	+	.	.	.	3	II	0.6
Riccardia pinguis	.	.	.	2	+	.	.	.	II	0.4
Total number of species (62)	24	25	27	21	28	27	21	19		

Mean number of species per relevé = 24.0.

* var. *falcatus* in 8. † var. *ericetorum* in 1 and 4. ‡ var. *auriculatum* in 8. var. *inundatum* in 2, 4, 5, and 7.

ADDITIONAL SPECIES IN LIST

1. *Vaccinium myrtillus* 1, *Eriophorum vaginatum* 3, *Aulacomnium palustre* 1, *Hylocomium splendens* 1, *Rhytidiadelphus loreus* 2, *Scapania irrigua* 1.
2. *Carex pauciflora* 4, *Sphagnum recurvum* 1, *Odontoschisma sphagni* 1.
3. *Carex hostiana* 3, *Eleocharis multicaulis* 3.
5. *Juncus kochii* 4, *Ranunculus flammula* 3, *Sphagnum strictum* +.
6. *Acrocladium cuspidatum* 1, *A. sarmentosum* +, *Dicranum scoparium* 1.
7. *Carex limosa* 3, *Juncus articulatus* 3, *Rhynchospora alba* 2, *Drosera anglica* 2.
8. *Marsupella emarginata* 3, *Scapania undulata* 2.

LOCALITIES

1. Osdale; 2. Beinn a'Mhadaidh; 3. Carn Liath; 4. Uchd Mòr; 5. N. of Uig; 6. Fiskavaig; 7. Sligachan; 8. Coire na Creiche.

TABLE 4.20

Class	SCHEUCHZERIO-CARICETEA FUSCAE
Order	CARICETALIA FUSCAE
Alliance	**Caricion canescentis-fuscae**
Association	*Molinia caerulea–Myrica gale*

	1	2	3	4	5	6	7		
Reference Number	B67	B67	B67	B68	B68	B67	B67		
Map Reference	008 556 216	009 596 216	094 657 113	013 572 007	007 416 182	038 707 158	045 610 203		
Altitude (feet)	350	350	400	300	275	100	150		
Aspect (degrees)	90	90	90	270	0	225	0		
Slope (degrees)	2	.	.	0.N.	2	5	8		
Cover (per cent)	100	100	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	C	D
Calluna vulgaris	3	4	1	3	.	.	2	IV	1.9
Erica tetralix	.	.	2	3	1	4	2	IV	1.7
Myrica gale	7	6	7	8	6	7	7	V	6.9
Salix aurita	.	.	.	3	+	.	.	II	0.6
Blechnum spicant	2	.	.	.	.	.	2	II	0.6
Deschampsia flexuosa	.	.	.	2	.	2	2	III	0.9
Festuca vivipara	.	.	2	.	.	.	1	II	0.4
Molinia caerulea	8	7	7	7	7	8	7	V	7.3
Carex demissa	.	.	3	4	.	.	1	III	1.1
C. echinata	1	.	4	3	2	3	3	V	2.3
C. panicea	.	.	4	4	1	2	2	IV	1.9
C. pulicaris	2	.	2	.	3	2	.	III	1.3
C. rostrata	.	.	3	.	+	.	.	II	0.6
**Dactylorchis maculata*	.	.	+	1	+	1	1	IV	0.7
Eriophorum angustifolium	3	.	.	2	2	.	1	III	1.1
Juncus effusus	.	.	.	2	.	.	2	II	0.6
Narthecium ossifragum	.	.	3	3	3	2	2	IV	1.9
Drosera rotundifolia	.	1	.	3	1	1	.	III	0.9
Galium saxatile	2	.	.	1	.	.	.	II	0.4
Pinguicula vulgaris	1	2	3	1	+	1	1	V	1.4
Polygala serpyllifolia	2	2	1	.	.	1	1	IV	1.0
Potentilla erecta	4	3	3	2	2	1	2	V	2.4
Breutelia chrysocoma	.	.	.	.	1	.	3	II	0.6
Drepanocladus revolvens	.	.	.	1	1	.	.	II	0.3
Sphagnum capillaceum	.	.	3	2	.	.	.	II	0.7
S. compactum	3	1	.	.	.	.	.	II	0.6
S. palustre	3	2	3	6	1	5	3	V	3.3
S. plumulosum	2	.	2	4	3	.	.	III	1.6
S. recurvum	4	2	.	3	2	.	2	IV	1.9
S. rubellum	.	.	1	.	2	2	2	III	1.0
†*S. subsecundum*	.	.	.	.	+	3	.	II	0.6
Splachnum ampullaceum	.	.	+	.	.	.	2	II	0.4
Total number of species (55)	16	10	25	29	26	18	25		

Mean number of species per relevé = 21.3.

* ssp. *ericetorum* in 3, 4, 5, and 6. † var. *auriculatum* in 6. var. *inundatum* in 5 and 6.

ADDITIONAL SPECIES IN LIST

1. *Campylium stellatum* 1.
3. *Carex nigra* 2, *Potamogeton polygonifolius* +, *Pedicularis sylvatica* 1, *Aulacomnium palustre* 2.
4. *Carex dioica* 2, *Eleocharis palustris* 3, *Juncus kochii* 1, *Triglochin palustre* 1, *Anagallis tenella* 3, *Drosera intermedia* +, *Hypericum pulchrum* +, *Scorpidium scorpioides* 1.
5. *Schoenus nigricans* 3, *Cirsium palustre* +, *Pedicularis palustris* +, *Sphagnum contortum* 1, *S. imbricatum* +.
6. *Lycopodium selago* +, *Hypnum cupressiforme* var. *ericetorum* 1.
7. *Equisetum palustre* +, *Juncus squarrosus* +, *Rhacomitrium lanuginosum*, 2.

LOCALITIES

1, 2. Blà Bheinn; 3. near Loch Meodal; 4. Aird of Sleat; 5. Lochan Coir' a' Ghobhainn; 6. E. side of Loch na Dal; 7. Coille Gaireallach.

TABLE 4.21

Class: SCHEUCHZERIO-CARICETEA FUSCAE
Order: CARICETALIA FUSCAE
Alliance: **Caricion canescentis-fuscae**

Association	*Sphagneto-Juncetum effusi*							*Carex-Sphagnum recurvum nodum*			
	1	2	3	4	5	C	D	6	7	8	D
Reference number	B67 036	B68 027	B68 364	B67 086	B68 060			B68 050	B68 051	B68 071	
Map reference	335 300	502 523	514 545	513 190	493 310			438 678	438 678	496 535	
Altitude (feet)	650	500	650	30	50			950	950	1600	
Aspect (degrees)	0	90	90	.	.			0	.	.	
Slope (degrees)	5	5	5	.	.			5	.	.	
Cover (per cent)	100	100	100	100	100			100	100	100	
Plot area (square metres)	4	4	4	4	4			4	4	4	
Erica tetralix	.	.	.	.	.			3	3	.	2.0
Agrostis canina	.	4	.	.	4	II	1.6	.	.	.	
Anthoxanthum odoratum	.	+	3	2	.	III	1.2	.	.	3	1.0
Deschampsia flexuosa	3	3	3	.	.	III	1.8	.	.	2	0.7
Festuca ovina	2	.	.	3	.	II	1.0	.	.	.	
F. vivipara	.	.	.	3	.	I	0.6	.	3	4	2.3
Molinia caerulea	.	.	2	.	.	I	0.4	2	.	3	1.7
Carex echinata	2	+	2	3	3	V	2.2	5	7	5	5.7
C. nigra	3	.	3	1	3	IV	2.0	3	3	3	3.0
C. panicea	.	.	.	3	.	I	0.6	2	.	3	1.7
Eriophorum angustifolium	2	.	.	2	.	II	0.8	8	6	8	7.3
Juncus effusus	8	8	8	7	9	V	8.0	.	.	.	
J. kochii	.	.	.	.	.			3	2	.	1.7
J. squarrosus	.	2	.	.	.	I	0.4	.	.	4	1.3
Luzula campestris	.	+	1	1	.	III	0.6	.	.	.	
Galium saxatile	3	4	2	5	4	V	3.6	.	.	.	
Pinguicula vulgaris	.	.	.	.	.			2	.	2	1.3
Polygala serpyllifolia	1	.	.	2	.	II	0.6	.	2	.	0.7
Potentilla erecta	2	3	3	4	3	V	3.0	.	4	.	1.3
Rumex acetosa	.	4	2	.	.	II	1.2	.	.	.	
Viola palustris	.	3	2	.	5	III	2.0	.	.	2	0.7
Hylocomium splendens	2	5	.	4	.	III	2.2	.	.	+	0.3
Polytrichum commune	3	3	5	5	4	V	4.0	.	3	.	1.0
Rhytidiadelphus squarrosus	.	3	1	3	3	IV	2.0	.	.	.	
Sphagnum girgensohnii	.	3	3	.	.	II	1.2	.	.	.	
S. palustre	6	4	3	4	3	V	4.0	5	6	3	4.7
S. plumulosum	.	.	.	.	.			2	4	.	2.0
S. recurvum	8	6	7	7	7	V	7.0	6	6	5	5.7
S. rubellum	1	.	.	2	.	II	0.6	.	.	.	
**S. subsecundum*	.	.	.	.	.			3	3	4	3.3
Thuidium tamariscinum	1	3	.	3	.	III	1.4	.	.	.	
Lophocolea bidentata	.	2	2	2	2	IV	1.6	.	.	.	
Pleurozia purpurea	.	.	.	.	.			2	.	+	1.0
Total number of species (58)	17	23	17	23	18			17	15	20	

Mean number of species per relevé = 19.6
Total number of species in association = 42.

Mean number of species per relevé = 17.3.
Total number of species in *nodum* = 32.

* var. *inundatum* in 6 and 7. var. *auriculatum* in 8.

ADDITIONAL SPECIES IN LIST

1. *Plagiothecium undulatum* 1, *Pleurozium schreberi* 1.
2. *Equisetum palustre* 4, *Cirsium palustre* 3, *Epilobium palustre* 2, *Pseudoscleropodium purum* +.
4. *Parnassia palustris* 3, *Succisa pratensis* 1, *Hypnum cupressiforme* 4.
5. *Carex ovalis* 3, *Cardamine pratensis* 4, *Stellaria alsine* 2, *Acrocladium cuspidatum* 4, *Eurhynchium praelongum* 1, *Peltigera canina* 1.
6. *Carex pauciflora* 3, *Narthecium ossifragum* 3, *Drosera rotundifolia* +, *Tetraplodon mnioides* +.
7. *Calluna vulgaris* 2, *Breutelia chrysocoma* 1.
8. *Selaginella selaginoides* +, *Nardus stricta* 3, *Carex demissa* 2, *Juncus articulatus* 3.

LOCALITIES

1. Preshal More; 2. The Storr; 3. Tottrome; 4. Camasunary; 5. Loch Sligachan; 6, 7. Biod Bhuidhe; 8. Bealach Beag.

TABLE 4.22

Class	SCHEUCHZERIO-CARICETEA FUSCAE						
Order	CARICETALIA FUSCAE						
Alliance	**Sphagno-Tomenthypnion**						
Association	*Carex rostrata–Aulacomnium palustre*						
	1	2	3	4	5		
Reference Number	B68	B68	B67	B68	B67		
	192	042	136	062	091		
Map Reference	233	502	502	493	656		
	604	652	652	486	113		
Altitude (feet)	200	250	250	450	350		
Cover (per cent)	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	C	D
Myrica gale	.	2	.	.	3	II	1.0
Equisetum palustre	1	2	1	5	2	V	2.2
Agrostis canina	.	3	.	.	3	II	1.2
Holcus lanatus	+	.	3	4	.	III	1.6
Molinia caerulea	4	3	2	.	2	IV	2.2
Carex curta	.	+	2	2	.	III	1.0
C. dioica	.	.	1	+	.	II	0.4
C. echinata	3	2	2	4	4	V	3.0
C. nigra	5	3	3	5	4	V	4.0
C. rostrata	8	7	7	8	7	V	7.4
Eleocharis palustris	.	.	2	.	4	II	1.2
Eriophorum angustifolium	1	2	2	3	3	V	2.2
Juncus acutiflorus	1	.	3	2	.	III	1.2
J. articulatus	.	3	3	2	.	III	1.6
J. effusus	1	.	2	2	.	III	1.0
J. kochii	2	.	.	.	2	II	0.8
Luzula multiflora	.	.	1	3	.	II	0.8
Caltha palustris	.	4	6	3	.	III	2.6
Cardamine pratensis	2	1	2	.	.	III	1.0
Cirsium palustre	.	.	.	+	+	II	0.4
Epilobium palustre	3	2	.	1	.	III	1.2
Filipendula ulmaria	.	2	5	3	.	III	2.0
Galium palustre	.	3	5	2	+	IV	2.2
Lychnis flos-cuculi	3	+	1	2	.	IV	1.4
Mentha aquatica	.	3	3	2	.	III	1.6
Menyanthes trifoliata	4	3	.	4	2	IV	2.6
Myosotis scorpioides	+	1	+	2	.	IV	1.0
Pedicularis palustris	1	4	4	3	3	V	3.0
Potentilla palustris	5	7	6	5	3	V	5.2
Ranunculus flammula	2	2	4	3	2	V	2.6
Rhinanthus minor	.	+	.	2	.	II	0.6
Rumex acetosa	1	2	3	.	.	III	1.2
Succisa pratensis	.	+	1	.	3	III	1.0
Viola palustris	1	.	.	3	.	II	0.8
Acrocladium cuspidatum	4	4	3	3	3	V	3.4
Aulacomnium palustre	3	2	3	2	2	V	2.4
Bryum pseudotriquetrum	2	.	.	1	.	II	0.6
Mnium pseudopunctatum	+	3	.	2	.	III	1.2
M. seligeri	+	2	3	.	.	III	1.2
Rhytidiadelphus squarrosus	.	3	.	2	.	II	1.0
Sphagnum contortum	.	2	3	.	.	II	1.0
S. palustre	.	.	.	1	5	II	1.2
S. recurvum	2	3	2	4	6	V	3.4
S. squarrosum	.	1	.	2	1	III	0.8
**S. subsecundum*	.	+	.	3	.	II	0.8
S. teres	.	+	2	2	.	III	1.0
S. warnstorfianum	.	.	.	2	1	II	0.6
Splachnum ampullaceum	+	.	.	.	+	II	0.4
Chiloscyphus pallescens	.	1	1	+	.	III	0.6
Pellia neesiana	2	1	.	+	.	III	0.8
Total number of species (75)	35	41	38	44	27		

Mean number of species per relevé = 37.0.

* var. *inundatum* in 2 and 4.

ADDITIONAL SPECIES IN LIST

1. *Juncus squarrosus* 2, *Achillea ptarmica* 3, *Senecio aquaticus* 1, *Acrocladium giganteum* +, *Campylium stellatum* 3, *Drepanocladus revolvens* 2, *Sphagnum plumulosum* 1.
2. *Salix aurita* 2, *Iris pseudacorus* +, *Acrocladium cordifolium* 2, *Lophocolea cuspidata* 1.
3. *Deschampsia flexuosa* 2, *Triglochin palustre* 2, *Pinguicula vulgaris* +, *Dicranum bonjeani* 1, *Trichocolea tomentella* 1.
4. *Parnassia palustris* 3, *Potentilla erecta* 3, *Valeriana officinalis* 3, *Acrocladium stramineum* +, *Dicranella palustris* 1.
5. *Carex panicea* 4, *C. pulicaris* 2, *Drosera rotundifolia* 1, *Galium saxatile* 1.

LOCALITIES

1. Cnoc a' Chatha; 2, 3. Loch Mealt; 4. Loch Fada; 5. Loch Meodal.

TABLE 4.23

Class	SCHEUCHZERIO–CARICETEA FUSCAE								
Order	TOFIELDIETALIA								
Alliance	**Eriophorion latifoliae**								
Association	*Carex rostrata–Scorpidium scorpioides*								
	1	2	3	4	5	6	7		
Reference Number	B68	B68	B68	B68	B68	B68	B67		
	053	055	114	045	019	065	042		
Map Reference	468	467	385	502	656	494	605		
	342	334	414	652	113	487	203		
Altitude (feet)	300	350	500	250	350	450	50		
Aspect (degrees)	.	270	.	.	.	.	.		
Slope (degrees)	.	2	.	.	.	.	.		
Cover (per cent)	75	75	100	90	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	C	D
Myrica gale	1	3	.	.	.	.	4	III	1.1
Equisetum palustre	3	3	.	4	1	2	1	V	2.0
Molinia caerulea	.	.	5	.	.	.	3	II	1.1
Carex demissa	.	4	3	.	.	.	.	II	1.0
C. dioica	4	.	4	3	.	.	1	III	1.7
C. echinata	.	2	2	.	.	+	3	III	1.1
C. hostiana	.	.	5	.	.	.	3	II	1.1
C. limosa	.	3	3	.	.	.	.	II	0.9
C. nigra	.	3	4	3	2	3	2	V	2.4
C. panicea	5	4	4	5	3	3	3	V	3.9
C. pulicaris	.	.	2	.	.	.	1	II	0.4
C. rostrata	7	7	6	6	8	9	7	V	7.1
C. serotina	.	.	.	4	.	3	.	II	1.0
Eleocharis quinqueflora	.	+	3	2	.	.	2	III	1.1
Eriophorum angustifolium	5	3	4	3	2	+	4	V	3.0
Juncus articulatus	.	.	1	4	.	.	.	II	0.7
J. kochii	.	.	2	.	2	.	.	II	0.6
Potamogeton polygonifolius	2	+	.	.	.	2	.	III	0.7
Triglochin palustre	.	.	2	.	.	+	.	II	0.4
Caltha palustris	.	.	.	.	+	.	1	II	0.3
Galium palustre	.	.	.	.	3	3	.	II	0.9
Mentha aquatica	.	.	.	2	.	+	.	II	0.4
Menyanthes trifoliata	.	4	3	7	5	2	3	V	3.4
Pedicularis palustris	.	.	1	4	+	+	.	III	1.0
Pinguicula vulgaris	3	.	2	.	.	.	.	II	0.7
Potentilla erecta	.	.	+	.	2	.	2	III	0.7
P. palustris	.	.	.	4	4	3	.	III	1.6
Ranunculus flammula	.	.	2	2	3	4	.	III	1.6
Succisa pratensis	.	.	2	.	.	.	2	II	0.6
Utricularia minor	2	+	.	.	3	.	.	III	0.9
Bryum pseudotriquetrum	.	.	.	1	.	+	.	II	0.3
Campylium stellatum	5	3	4	4	.	4	3	V	3.3
†***Drepanocladus revolvens***	3	4	4	3	2	.	+	V	2.4
Scorpidium scorpioides	6	4	3	3	3	3	4	V	3.7
Sphagnum contortum	.	4	.	3	.	.	4	III	1.6
S. palustre	.	5	.	.	.	.	2	II	1.0
S. plumulosum	3	.	2	.	.	.	2	III	1.0
S. recurvum	.	2	.	.	4	.	.	II	0.9
**S. subsecundum*	3	3	.	.	3	.	2	III	1.6
Total number of species (64)	16	22	29	24	20	19	32		

Mean number of species per relevé = 23.1.

* var. *inundatum* in 1, 2, 5, and 7. † var. *intermedius* in 1, 2, 3, 4, 5, and 7

ADDITIONAL SPECIES IN LIST

1. *Narthecium ossifragum* 2, *Drosera rotundifolia* 3.
2. *Epilobium palustre* 2, *Viola palustris* 3.
3. *Selaginella selaginoides* 3, *Dactylorchis incarnata* 1, *Trichophorum cespitosum* 3, *Euphrasia scottica* +.
4. *Acrocladium giganteum* 1, *Cinclidium stygium* 5, *Mnium pseudopunctatum* 3, *Philonotis calcarea* +, *Sphagnum teres* 2.
5. *Cirsium palustre* 3, *Utricularia intermedia* +.
6. *Riccardia pinguis* +.
7. *Phragmites communis* +, *Dactylorchis purpurella* 1, *Eleocharis palustris* 2, *Platanthera bifolia* +, *Schoenus nigricans* 3, *Drosera anglica* 1, *Acrocladium cuspidatum* 2, *Breutelia chrysocoma* 3, *Splachnum ampullaceum* +.

LOCALITIES

1, 2. Glen Varragill; 3. Beinn a' Mhadaidh; 4. Loch Mealt; 5. Loch Meodal; 6. Loch Fada; 7. Loch Cill Chriosd.

TABLE 4.24

Class	SCHEUCHZERIO-CARICETEA FUSCAE
Order	TOFIELDIETALIA
Alliance	**Eriophorion latifoliae**
Association	*Carex panicea–Campylium stellatum*

	1	2	3	4	5	6		
Reference Number	B67	B67	B67	B67	B68	B68		
	061	037	076	115	098	323		
Map Reference	752	331	567	510	395	753		
	210	300	201	403	645	260		
Altitude (feet)	1100	600	100	600	400	200		
Aspect (degrees)	225	0	90	225	180	0		
Slope (degrees)	15	10	20	12	5	5		
Cover (per cent)	60	70	80	75	100	100		
Plot area (square metres)	4	4	4	4	4	4	C	D
Erica tetralix	2	.	.	2	1	3	IV	1.3
Equisetum palustre	.	2	.	.	5	.	II	1.2
Selaginella selaginoides	2	3	3	2	3	2	V	2.5
Anthoxanthum odoratum	1	4	.	.	.	.	II	0.8
Carex demissa	5	.	.	4	2	3	IV	2.3
C. dioica	.	.	.	2	.	4	II	1.0
C. echinata	.	3	4	2	4	5	IV	3.0
C. flacca	.	.	.	4	4	2	III	1.7
C. hostiana	.	.	.	.	4	3	II	1.2
C. nigra	2	3	2	.	.	.	III	1.2
C. panicea	6	6	6	7	7	6	V	6.3
C. pulicaris	2	.	.	4	3	.	III	1.5
Eleocharis palustris	1	3	.	.	.	.	II	0.7
E. quinqueflora	3	3	.	3	6	.	IV	2.5
Eriophorum angustifolium	3	2	2	.	4	.	IV	1.8
Juncus articulatus	2	3	.	3	3	3	V	2.3
J. kochii	1	.	.	1	4	.	III	1.0
J. squarrosus	1	1	2	.	3	.	IV	1.2
Narthecium ossifragum	2	.	.	.	.	2	II	0.7
Drosera rotundifolia	.	.	2	1	2	.	III	0.8
Euphrasia scottica	.	.	3	2	.	3	III	1.3
Pedicularis sylvatica	1	2	.	3	.	.	III	1.0
Pinguicula vulgaris	3	2	3	3	.	1	V	2.0
Potentilla erecta	3	1	2	.	3	2	V	1.8
Ranunculus acris	.	3	3	3	.	.	III	1.5
R. flammula	1	.	.	.	.	3	II	0.7
Taraxacum officinale agg.	1	2	.	.	.	.	II	0.5
Blindia acuta	1	1	.	2	.	.	III	0.7
Breutelia chrysocoma	3	1	3	2	3	.	V	2.0
Bryum pseudotriquetrum	1	2	.	.	.	.	II	0.5
Campylium stellatum	5	4	5	6	6	5	V	5.2
Ctenidium molluscum	2	.	.	2	.	5	III	1.5
**Drepanocladus revolvens*	4	1	2	.	5	.	IV	2.0
Mnium punctatum	1	2	.	.	.	.	II	0.5
Scorpidium scorpioides	4	.	3	4	.	.	III	1.8
Riccardia pinguis	.	.	1	.	2	.	II	0.5
Total number of species (62)	31	27	24	26	23	18		

Mean number of species per relevé = 24.8.

* var. *intermedius* in 1, 2, 3, and 5.

ADDITIONAL SPECIES IN LIST

1. *Calluna vulgaris* 1, *Thalictrum alpinum* 4, *Fissidens adianthoides* 2.
2. *Triglochin palustre* 1, *Caltha palustris* 3, *Pedicularis palustris* 2, *Acrocladium cuspidatum* 2, *Mnium seligeri* 2.
3. *Cynosurus cristatus* 1, *Parnassia palustris* 2, *Prunella vulgaris* 2, *Rhinanthus minor* 1, *Viola riviniana* 2, *Philonotis fontana* 1, *Sphagnum squarrosum* 1, *Thuidium tamariscinum* 3.
4. *Deschampsia cespitosa* 3, *Festuca rubra* 2, *Juncus effusus* +, *Polygala serpyllifolia* +, *Sphagnum palustre* 1.
5. *Potamogeton polygonifolius* 4, *Pinguicula lusitanica* 3, *Riccardia sinuata* 1.
6. *Molinia caerulea* 4, *Succisa pratensis* 2.

LOCALITIES

1. Sgùrr na Coinnich; 2. Preshal More; 3. Faoilean; 4. Ben Tianavaig; 5. near Uig; 6. Kyleakin.

TABLE 4.25

Class: SCHEUCHZERIO-CARICETEA FUSCAE
Order: TOFIELDIETALIA
Alliance: Eriophorion latifoliae

Association	*Eriophorum latifolium–Carex hostiana*												*Schoenus nigricans*								*Carex–Saxifraga aizoides nodum*					
	1	2	3	4	5	6	7	8	9	10	11		12	13	14	15	16	17	18		19	20	21	22		
Reference Number	B67	B67	B68	B68	B68	B68	B68	B68	B68	B68	B67		B67	B68	B67	B68	B67	B67	B68		B67	B68	B68	B68		
	011	113	012	024	322	349	350	359	124	123	044		010	255	043	021	083	039	321		075	234	105	107		
Map Reference	555	597	587	472	753	422	412	415	503	502	601		555	605	602	472	528	707	753		594	544	449	449		
	614	198	007	306	260	222	222	199	567	567	200		614	202	202	304	187	158	260		200	215	699	699		
Altitude (feet)	350	100	200	300	200	150	150	250	700	750	150		350	50	50	250	750	100	200		100	800	1550	1550		
Aspect (degrees)	45	0	135	180	0	270	270	270	90	45	0		90	.	.	.	270	270	0		0	135	90	90		
Slope (degrees)	5	10	10	5	5	3	3	10	5	5	.		5	.	.	.	5	2	5		5	5	5	5		
Cover (per cent)	50	50	100	60	50	60	75	85	100	100	70		100	100	80	100	100	100	100		40	60	40	60		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	4	C	D	4	4	4	4	4	4	4	C	D	4	4	4	4	D
Calluna vulgaris	.	.	.	3	.	.	.	.	+	2	.	II	0.5	.	.	.	2	.	.	.	I	0.3	.	.	.	.	
Erica tetralix	2	.	2	3	.	1	2	1	3	1	.	IV	1.4	.	1	.	2	.	1	4	III	1.1	.	.	.	.	
Myrica gale	.	.	4	3	.	.	.	.	2	4	4	III	1.5	2	3	.	4	.	.	.	III	1.3	.	.	.	.	
Equisetum palustre	.	2	.	.	.	.	.	.	4	4	.	II	0.9	.	.	.	.	.	.	.			.	.	.	.	
Selaginella selaginoides	1	3	3	.	.	1	2	3	2	.	3	IV	1.6	2	4	1	2	3	2	.	V	2.0	2	3	.	3	2.0
Festuca ovina	.	2	.	.	4	3	3	.	.	.	2	III	1.3	.	.	.	.	.	.	.			3	.	3	.	1.5
F. rubra	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	.			.	.	4	3	1.8
F. vivipara	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	.			2	5	3	3	3.3
Molinia caerulea	.	.	3	2	.	2	.	.	.	3	4	III	1.3	.	3	.	3	.	2	2	III	1.4	.	4	.	.	1.0
Carex demissa	3	4	5	3	3	2	3	3	3	2	3	V	3.1	.	.	.	.	.	.	.			3	2	5	6	4.0
C. dioica	2	2	.	2	4	3	2	2	.	3	.	IV	1.8	.	.	.	2	.	2	.	II	0.6	.	1	3	.	1.0
C. echinata	2	.	4	2	.	.	.	.	.	4	2	III	1.3	4	2	.	4	2	1	.	IV	1.9	.	2	2	.	1.0
C. flacca	3	3	5	4	3	.	.	.	.	3	1	IV	2.0	.	.	.	.	1	.	.	I	0.1	5	3	4	5	4.3
C. hostiana	4	4	3	3	3	4	3	4	4	4	4	V	3.6	.	2	3	.	.	.	.	II	0.7	.	3	.	.	0.8
C. lepidocarpa	.	5	.	.	.	.	.	.	.	.	5	I	0.9	.	.	3	.	.	.	.	I	0.4	2	.	.	.	0.5
C. nigra	1	.	.	+	.	3	.	.	+	3	.	III	0.8	.	4	2	4	.	.	.	III	1.4	.	.	.	.	
C. panicea	5	3	4	4	2	3	3	4	3	4	4	V	3.5	4	3	3	4	4	4	3	V	3.6	3	3	4	4	3.5
C. pulicaris	.	3	.	3	.	3	.	.	.	2	2	III	1.2	.	1	.	.	.	.	.	I	0.1	2	4	3	.	2.3
C. rostrata	.	.	.	.	.	.	.	.	+	7	.	I	0.7	.	2	4	5	.	.	.	III	1.6	3	.	.	.	0.8
Eleocharis palustris	.	.	.	.	.	.	.	.	5	.	.	I	0.4	.	.	2	.	.	.	.	I	0.3	.	.	.	.	
E. quinqueflora	2	3	2	.	.	4	4	3	6	3	3	V	2.7	.	2	2	.	.	3	4	III	1.6	.	2	.	.	0.5
Eriophorum angustifolium	.	.	.	.	.	.	2	.	.	.	.	I	0.2	.	.	.	3	2	1	.	III	0.9	.	1	.	.	0.3
E. latifolium	7	8	6	7	8	6	6	8	7	7	6	V	6.9	3	2	+	.	.	.	.	II	0.9	.	.	.	.	
Juncus articulatus	.	.	5	3	4	4	3	1	.	.	.	III	1.8	.	.	.	.	.	.	.			2	4	.	.	1.5
J. kochii	1	.	2	4	.	.	.	3	.	4	.	III	1.3	.	.	.	3	.	.	.	I	0.4	.	.	.	.	
J. triglumis	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	.			.	.	4	4	2.0
Narthecium ossifragum	.	.	1	3	.	.	1	2	3	.	1	III	0.9	.	.	2	3	3	.	3	III	1.6	.	1	.	.	0.3
Potamogeton polygonifolius	3	.	3	.	.	.	1	.	4	2	2	III	1.4	3	.	2	.	.	2	.	III	1.0	.	.	.	.	
Rhynchospora alba	.	.	.	.	.	.	.	.	.	.	.			.	1	.	+	.	1	.	II	0.4	.	.	.	.	
Schoenus nigricans	4	5	6	6	5	5	6	6	6	5	5	V	5.4	8	8	9	9	8	8	9	V	8.4	4	5	.	.	2.3
Triglochin palustre	.	3	+	.	.	1	.	.	.	1	2	III	0.7	.	.	.	.	.	.	.			.	.	.	.	
Drosera anglica	.	.	.	.	3	3	3	4	.	.	4	III	1.5	2	4	2	4	.	3	4	V	2.7	.	1	.	.	0.3
D. rotundifolia	.	.	3	.	.	.	1	3	2	.	.	II	0.8	.	.	2	3	3	2	2	IV	1.7	.	.	.	.	
Euphrasia scottica	.	1	1	.	.	.	1	.	.	3	2	III	0.7	.	.	.	.	.	.	.			2	4	1	3	2.5
Hypericum pulchrum	.	.	1	.	.	.	.	.	.	.	1	I	0.2	.	.	.	.	.	.	.			1	.	.	.	0.3
Menyanthes trifoliata	.	.	.	.	.	.	.	.	5	+	1	I	0.6	.	4	3	.	.	.	.	II	1.0	.	.	.	.	
Pedicularis palustris	.	2	1	.	.	.	.	.	.	.	+	II	0.4	.	.	.	.	.	.	.			.	.	.	.	
Pinguicula lusitanica	.	.	3	.	3	.	.	.	4	.	.	II	0.9	.	.	.	.	.	.	1	I	0.1	.	.	.	.	
P. vulgaris	3	1	3	3	2	2	4	2	.	1	2	V	2.1	1	2	.	1	2	2	2	V	1.4	4	2	4	3	3.3
Plantago maritima	.	4	.	.	.	.	.	.	.	.	3	I	0.6	.	.	.	.	.	.	.			1	.	.	.	0.3
Potentilla erecta	.	.	.	.	.	.	.	1	.	2	.	I	0.3	.	.	.	.	1	.	.	I	0.1	.	.	.	.	
Ranunculus flammula	.	.	2	.	.	.	.	.	.	1	.	I	0.3	.	.	.	.	.	.	.			.	.	3	3	1.5
Saxifraga aizoides	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	.			5	8	7	7	6.8
Succisa pratensis	.	3	2	+	.	.	1	3	.	1	+	IV	1.1	.	1	.	.	.	.	1	II	0.1	.	.	.	.	
Thalictrum alpinum	.	.	.	.	.	.	.	.	.	.	2	I	0.2	.	.	.	.	.	.	.			2	.	2	3	1.8
Thymus drucei	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	.			3	1	.	.	1.0
Utricularia minor	+	.	+	.	.	.	+	.	.	.	.	II	0.3	.	3	.	2	.	.	1	III	0.9	.	.	.	.	
Acrocladium sarmentosum	.	.	.	.	.	2	.	.	+	.	.	I	0.3	.	.	.	.	.	.	.			.	.	.	.	
A. trifarium	3	.	.	3	.	.	.	.	.	.	.	I	0.5	.	.	.	.	.	.	.			.	.	.	.	
Blindia acuta	.	2	+	2	3	1	3	3	.	.	+	IV	1.5	.	.	.	.	1	.	.	I	0.1	3	3	6	6	4.5
Breutelia chrysocoma	.	.	.	.	.	.	2	2	1	.	.	II	0.5	.	.	.	1	.	.	.	I	0.1	.	.	.	.	
Brymn pseudotriquetrum	.	.	3	2	.	.	1	.	.	.	3	II	0.8	.	.	.	.	.	.	.			2	1	.	.	1.0
Campylium stellatum	3	3	4	4	4	4	4	4	4	5	4	V	3.9	4	3	4	3	4	3	5	V	3.7	4	3	5	4	4.0
Cinclidium stygium	.	2	.	.	.	.	.	.	.	.	4	I	0.5	.	.	.	.	.	.	.			.	.	.	.	
Cratoneuron commutatum	.	6	.	.	.	.	.	.	.	.	3	I	0.8	.	.	.	.	.	.	.			4	3	.	1	2.5
Ctenidium molluscum	.	.	2	.	.	.	.	.	3	.	3	II	0.8	.	.	.	.	.	.	.			3	.	.	2	1.3
•*Drepanocladus revolvens*	.	2	4	.	.	3	.	+	3	4	4	III	1.9	.	.	2	2	.	.	.	II	0.6	4	3	4	1	3.0
Fissidens adianthoides	.	2	.	.	.	.	.	.	.	3	1	II	0.5	.	1	.	.	.	.	.	I	0.1	.	2	.	.	0.5
Scorpidium scorpioides	6	6	4	5	2	5	4	4	4	3	5	V	4.4	3	6	5	3	5	4	3	V	4.1	2	5	3	2	3.0
Sphagnum contortum	.	.	+	.	.	.	.	.	+	+	2	II	0.5	.	.	4	.	.	.	.	I	0.6	.	.	.	.	
S. plumulosum	.	.	.	.	.	.	.	+	+	.	.	I	0.2	.	.	.	.	.	.	.			.	.	.	.	
†*S. subsecundum*	3	.	.	2	.	.	.	1	5	1	.	III	1.1	2	4	5	3	2	1	.	V	2.4	.	.	.	.	
Splachnum ampullaceum	.	.	.	.	.	1	1	1	.	.	.	II	0.3	.	.	.	.	.	.	.			.	.	.	.	
Tortella tortuosa	.	.	.	.	.	.	.	1	.	.	1	I	0.2	.	.	.	.	.	.	.			.	.	.	.	
Pellia epiphylla	.	.	.	.	.	.	.	.	1	1	1	II	0.3	.	.	.	+	.	.	.	I	0.1	.	.	.	.	
Riccardia pinguis	.	.	1	1	.	1	.	2	.	.	.	III	0.5	.	.	.	.	.	.	.			1	1	2	2	1.5
Total number of species (98)	20	28	35	26	15	25	26	31	31	36	50			12	23	20	25	14	17	15			30	28	22	22	

Mean number of species per relevé = 29.4.
Total number of species in association = 83.

Mean number of species per relevé = 18.0
Total number of species in association = 41.

Mean number of species per relevé = 25.5.
Total number of species in nodum = 47.

• var. *intermedius* in 2, 3, 6, 8, 9, 10, 11, 14, 15, and 22. † var. *inundatum* in 4, 8, 9, 13, 14, and 15. var. *auriculatum* in 1, 12, 16, and 17.

ADDITIONAL SPECIES IN LIST

2. *Mnium undulatum* 2, *Chara* sp. 4.
3. *Prunella vulgaris* 1.
6. *Splachnum sphaericum* 1.
8. *Riccardia multifida* 1.
9. *Empetrum nigrum* +, *Carex limosa* 3, *Sphagnum palustre* 1.
10. *Carex curta*, *Sphagnum warnstorfianum* 1.
11. *Dactylorchis purpurella* 1, *Platanthera bifolia* 1, *Linum catharticum* +, *Acrocladium cuspidatum* 1, *Barbula fallax* +, *Cratoneuron filicinum* 1, *Mnium seligeri* +, *Orthothecium rufescens* 2, *Philonotis calcarea* 2, *Pseudoscleropodium purum* 1, *Leiocolea bantriensis* 2, *L. muelleri* 2, *Scapania aspera* 2.
13. *Phragmites communis* +.
19. *Dryas octopetala* 2, *Parnassia palustris* 1, *Gymnostomum recurvirostrum* 2.
21. *Juncus biglumis* +, *Lotus corniculatus* 3.
22. *Viola riviniana* 2, *Anthelia julacea* 2, *Riccardia sinuata* +.

LOCALITIES

1, 12, 20. Blà Bheinn; 2, 19. Ben Suardal; 3. Aird of Sleat; 4, 15. Loch an Eilean; 5, 18. Kyleakin; 6, 7. Glenbrittle; 8. Sgùrr Sgumain; 9, 10. Carn Liath; 11, 13, 14. Loch Cill Chriosd; 16. Slat Bheinn; 17. E. side, Loch na Dal; 21, 22. Sgùrr Mor.

TABLE 4.26

Class	OXYCOCCO-SPHAGNETEA
Order	ERICETALIA TETRALICIS
Alliance	**Ericion tetralicis**
Association	*Trichophoreto-Callunetum*

Facies	*Sphagnum-rich*						*Rhacomitrium-rich*					*Lichen-rich*				
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Reference Number	B67	B67	B68	B68	B68	B68	B68	B67	B67	B68	B67	B68	B67	B67		
Map Reference	079 547 183	112 241 551	087 506 557	180 165 543	333 504 286	029 500 535	009 416 182	023 540 208	111 241 551	049 438 675	122 435 606	332 504 286	095 657 113	060 752 210		
Altitude (feet)	300	300	700	650	1300	1000	300	1400	300	950	1000	1200	400	1000		
Aspect (degrees)	225	315	45	45	0	90	90	135	315	.	0	0	270	225		
Slope (degrees)	5	5	4	5	5	2	8	10	5	E.	10	15	10	10		
Cover (per cent)	100	100	100	100	100	100	90	80	80	100	100	90	70	70		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	4	4	4	4	C	D
Calluna vulgaris	6	5	7	4	7	5	5	5	7	6	7	7	6	5	V	5.9
Empetrum nigrum	.	.	.	3	2	2	.	.	2	.	3	.	.	1	III	0.9
Erica cinerea	.	.	.	.	.	.	4	.	2	2	.	4	2	.	II	1.0
E. tetralix	3	3	4	4	3	2	3	.	3	3	3	+	3	3	V	2.7
Vaccinium myrtillus	.	.	.	.	1	2	.	.	.	.	2	.	.	2	II	0.5
Lycopodium selago	.	.	.	.	.	.	.	.	.	1	1	.	.	.	I	0.1
Agrostis canina	.	.	.	.	.	.	1	.	.	.	.	1	.	.	I	0.1
Molinia caerulea	3	2	.	3	.	3	3	.	3	.	.	2	4	.	III	1.6
Nardus stricta	.	.	.	.	2	.	.	.	.	.	.	2	.	.	I	0.3
Carex binervis	.	.	.	.	.	.	.	.	4	.	.	1	+	.	II	0.4
C. echinata	1	.	.	.	1	.	.	.	1	.	.	.	.	.	II	0.2
C. nigra	.	2	.	.	.	1	.	.	1	.	.	.	.	.	II	0.3
C. panicea	.	.	.	.	.	.	2	.	2	.	.	.	.	+	II	0.4
C. rostrata	.	.	3	.	.	2	.	.	.	.	.	.	.	.	I	0.4
**Dactylorchis maculata*	.	+	.	.	.	.	+	.	.	.	.	.	.	.	I	0.1
Eriophorum angustifolium	3	3	3	4	3	3	.	.	2	4	2	+	.	3	IV	2.2
E. vaginatum	3	4	4	4	4	4	.	.	5	.	2	.	.	3	IV	2.4
Juncus squarrosus	3	2	.	.	4	2	4	5	3	+	1	.	2	2	IV	2.1
Narthecium ossifragum	1	.	3	1	.	+	3	.	.	3	2	.	.	2	III	1.1
Trichophorum cespitosum	8	6	7	7	7	7	7	8	8	8	6	8	8	7	V	7.3
Drosera rotundifolia	.	.	1	2	.	3	.	.	.	2	.	.	.	1	II	0.6
Pedicularis sylvatica	.	+	.	.	.	.	1	.	.	.	.	.	2	.	II	0.3
Pinguicula vulgaris	.	.	.	3	.	.	.	2	.	2	.	.	.	.	II	0.5
Polygala serpyllifolia	+	2	.	.	.	.	.	2	1	.	.	1	.	2	III	0.6
Potentilla erecta	3	4	3	3	3	4	3	3	3	3	3	3	3	2	V	3.1
Succisa pratensis	.	.	.	1	.	.	.	.	.	.	.	.	2	.	II	0.2
Breutelia chrysocoma	1	.	.	.	.	1	.	2	.	2	1	.	1	.	III	0.6
Campylopus atrovirens	1	.	3	.	.	.	1	4	.	.	1	2	.	.	III	0.9
‡*C. flexuosus*	2	.	+	.	.	.	1	.	.	1	.	3	1	.	III	0.9
C. setifolius	+	.	2	.	.	.	.	.	.	.	.	1	.	.	II	0.3
Dicranella heteromalla	.	.	.	.	.	.	.	.	.	.	.	2	.	1	I	0.2
Dicranum scoparium	3	.	.	+	.	.	.	1	.	.	.	.	1	.	II	0.4
†*Hypnum cupressiforme*	3	.	.	.	.	3	.	1	2	.	4	2	3	1	III	1.4
Pleurozium schreberi	2	.	.	+	2	.	.	3	.	2	+	.	.	.	III	0.8
Polytrichum commune	.	.	.	.	3	+	.	.	.	.	.	.	.	.	I	0.3
Rhacomitrium lanuginosum	1	3	3	.	.	.	4	5	5	7	7	2	3	3	IV	3.1
Rhytidiadelphus loreus	.	.	.	.	3	3	.	.	.	.	.	.	.	.	I	0.4
Sphagnum capillaceum	.	.	.	.	.	.	.	.	3	3	3	2	3	4	III	1.3
S. compactum	2	.	.	.	.	.	.	.	.	.	.	3	1	2	II	0.6
S. imbricatum	+	.	.	.	.	.	.	.	.	.	+	.	.	.	I	0.1
S. palustre	.	3	.	5	5	3	.	.	.	.	2	.	.	3	III	1.5
S. papillosum	.	1	4	4	.	.	.	3	.	.	.	.	1	.	II	0.9
S. plumulosum	.	.	1	.	.	.	.	.	.	.	2	.	.	.	I	0.2
S. rubellum	4	3	4	3	6	5	.	.	.	.	.	.	1	.	III	1.9
S. tenellum	.	.	3	1	.	.	.	.	.	4	.	.	2	1	II	0.8
Cephalozia bicuspidata	.	.	.	.	.	.	2	.	.	.	.	1	.	.	I	0.2
Diplophyllum albicans	.	.	.	.	1	.	.	.	.	1	.	2	1	.	II	0.4
Lepidozia setacea	.	.	.	.	.	.	.	.	.	.	.	3	.	1	I	0.3
Lophozia ventricosa	.	.	.	1	.	.	.	.	.	.	.	.	.	1	I	0.1
Mylia taylori	.	.	.	.	1	.	1	.	.	+	.	.	1	1	II	0.4
Odontoschisma sphagni	1	1	1	.	.	.	1	.	.	.	1	1	.	.	III	0.4
Pleurozia purpurea	.	.	2	.	.	.	.	.	.	2	2	+	.	1	II	0.6
Scapania gracilis	.	.	.	.	.	.	.	.	.	.	1	.	2	.	I	0.2
Cladonia arbuscula	.	.	.	.	.	.	.	.	.	4	3	.	3	.	II	0.7
C. coccifera	1	.	.	.	.	.	.	.	.	1	.	3	3	2	II	0.7
C. uncialis	1	1	.	.	.	.	.	.	.	3	3	.	3	3	III	1.0
Total number of species (80)	26	20	19	18	21	21	23	13	19	25	26	26	31	31		

Mean number of species per relevé = 22.8.

* ssp. *ericetorum* in 2 and 7. † var. *ericetorum* in 1, 6, 8, 9, 10, 11, 12, 13, and 14. ‡ var. *zonatus* in 3.

ADDITIONAL SPECIES IN LIST

1. *Nowellia curvifolia* +.
2. *Campylopus brevipilus* 2, *Splachnum sphaericum* +.
5. *Festuca vivipara* 2, *Luzula sylvatica* 2.
6. *Hylocomium splendens* 3.
7. *Carex binervis* 2, *Melampyrum pratense* +, *Campylopus shawii* 3, *Pohlia nutans* 2, *Sphagnum strictum* 2.
9. *Juncus effusus* 2.
10. *Vaccinium vitis-idaea* 2, *Deschampsia flexuosa* 3.
11. *Tetraplodon mnioides* 1.
12. *Cladonia pyxidata* 1.
13. *Blechnum spicant* 2, *Cladonia digitata* 1, *C. floerkiana* 1, *C. rangiformis* 1, *Icmadophila ericetorum* 2.
14. *Campylopus introflexus* +, *Lophozia incisa* +, *Mylia anomala* 1, *Odontoschisma denudatum* 1, *Cladonia impexa* 1.

LOCALITIES

1. Kirkibost; 2, 9. Lovaig Bay; 3. Carn Liath; 4. Dunvegan Head; 5, 12. Druim na Ruaige; 6. The Storr; 7. S. of Glenbrittle; 8. Blà Bheinn; 10. Biod Biudhe; 11. Coire Amadal; 13. near Loch Meodal; 14. Glen Arroch.

TABLE 4.27

Class	OXYCOCCO-SPHAGNETEA										
Order	ERICETALIA TETRALICIS										
Alliance	**Ericion tetralicis**										
Association	*Molinieto–Callunetum*										
	1	2	3	4	5	6	7	8	9		
Reference Number	B68	B68	B67	B67	B67	B67	B67	B67	B68		
	008	326	050	052	084	088	080	027	181		
Map Reference	416	492	437	441	516	512	542	370	165		
	182	195	257	256	193	199	185	305	543		
Altitude (feet)	300	150	400	650	300	200	250	500	650		
Aspect (degrees)	90	270	270	225	270	270	270	225	45		
Slope (degrees)	12	15	15	15	15	12	15	5	5		
Cover (per cent)	100	100	100	100	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	C	D
Calluna vulgaris	5	5	5	5	6	6	5	8	7	V	5.8
Empetrum nigrum	.	.	.	.	.	.	.	2	3	II	0.6
Erica cinerea	2	.	.	1	.	2	.	.	.	II	0.6
E. tetralix	.	4	3	3	1	3	2	2	4	V	2.4
Myrica gale	.	3	.	2	.	.	.	.	.	II	0.6
Deschampsia flexuosa	.	.	.	.	1	.	3	.	.	II	0.4
Molinia caerulea	7	8	8	6	7	6	8	5	7	V	6.9
Carex echinata	2	2	.	.	.	.	2	.	.	II	0.7
**Dactylorchis maculata*	1	.	.	.	.	.	.	.	1	II	0.2
Eriophorum vaginatum	3	.	.	.	.	.	.	3	3	II	1.0
Juncus squarrosus	.	.	1	1	.	3	.	1	+	III	0.8
Narthecium ossifragum	3	3	2	3	2	3	3	.	3	V	2.4
Schoenus nigricans	.	1	.	.	.	1	.	.	.	II	0.2
Trichophorum cespitosum	3	2	3	2	2	3	3	1	.	V	2.1
Drosera rotundifolia	2	1	.	.	.	2	.	.	2	III	0.8
Pedicularis sylvatica	2	.	2	2	+	2	2	.	.	IV	1.2
Polygala serpyllifolia	.	.	1	2	.	2	.	2	.	III	0.8
Potentilla erecta	3	2	3	3	3	3	3	3	4	V	3.0
Succisa pratensis	.	2	.	.	.	.	.	.	+	II	0.3
Breutelia chrysocoma	.	1	.	.	.	.	+	1	.	II	0.3
†*Campylopus atrovirens*	.	4	2	.	1	3	1	.	.	III	1.2
Hylocomium splendens	.	.	.	.	.	.	.	4	3	II	0.8
‡*Hypnum cupressiforme*	.	.	.	.	.	.	.	2	1	II	0.3
Rhacomitrium lanuginosum	.	3	3	4	2	2	1	.	.	IV	1.7
Sphagnum capillaceum	4	.	.	.	.	.	4	5	2	III	1.7
S. compactum	.	3	3	.	1	1	.	.	.	III	0.9
S. imbricatum	.	.	+	.	.	+	.	.	.	II	0.2
S. palustre	.	.	.	.	.	.	2	3	1	II	0.7
S. papillosum	3	.	.	.	.	.	.	3	.	II	0.7
S. plumulosum	2	.	.	.	.	2	.	.	.	II	0.4
S. recurvum	.	.	.	.	.	.	2	3	.	II	0.6
S. strictum	.	2	.	.	2	+	.	.	3	III	0.9
S. tenellum	.	.	1	1	.	1	.	4	.	III	0.8
Pleurozia purpurea	.	3	2	2	3	2	1	.	1	IV	1.6
Cladonia arbuscula	.	3	.	.	.	1	.	2	.	II	0.7
C. impexa	.	.	.	1	2	.	1	.	.	II	0.4
C. uncialis	.	2	.	.	3	+	.	2	.	III	0.9
Total number of species (59)	18	20	17	15	16	26	18	24	21		

Mean number of species per relevé = 19.4.

* ssp. *ericetorum* in 1 and 9. † var. *falcatus* in 2 and 6. ‡ var. *ericetorum* in 8 and 9.

ADDITIONAL SPECIES IN LIST

1. *Carex dioica* 1, *C. panicea* 2, *Pinguicula lusitanica* +, *Leucobryum glaucum* 2.
2. *Splachnum sphaericum* 1.
3. *Lycopodium selago* 1, *Melampyrum pratense* 2.
5. *Campylopus flexuosus* 1.
6. *Pinguicula vulgaris* 1, *Campylopus setifolius* 1, *C. shawii* 1, *Sphagnum molle* +.
7. *Thuidium tamariscinum* +.
8. *Dicranum scoparium* 3, *Rhytidiadelphus loreus* 2, *Sphagnum cuspidatum* 2, *Mylia taylori* 2, *Odontoschisma sphagni* 1.
9. *Selaginella selaginoides* +, *Eriophorum angustifolium* 2, *Plagiothecium undulatum* 3, *Pleurozium schreberi* 2.

LOCALITIES

1. Lochan Coir' a' Ghobhainn; 2. Loch Coruisk; 3, 4. Coire na Creiche; 5. Camasunary; 6. Sligachan; 7. Kirkibost; 8. Carbost; 9. Dunvegan Head.

TABLE 4.28

Class	OXYCOCCO–SPHAGNETEA
Order	SPHAGNETALIA MAGELLANICI
Alliance	Erico–Sphagnion
Association	*Trichophoreto–Eriophoretum*

	1	2	3	4	5	6	7	8	9	10	11	12	12	14	15		
Reference Number	B67	B67	B67	B68	B68	B68	B67	B68	B68	B68	B68	B67	B67	B67	B67		
Map Reference	090	093	140	113	210	207	048	056	229	309	311	085	005	006	051		
	540	657	472	385	398	675	618	488	676	493	748	516	561	558	440		
Altitude (feet)	177	113	306	414	336	205	198	302	203	282	258	193	216	214	256		
Aspect (degrees)	150	400	250	500	350	200	500	25	200	100	100	200	100	250	600		
Slope (degrees)	.	.	0	.	.	.	30	.	.	.	.	.	45	90	45		
Cover (per cent)	.	.	2	.	.	.	2	.	.	.	.	.	3	3	5		
Plot area (square metres)	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	C	D
Calluna vulgaris	5	3	5	4	6	7	6	5	7	3	4	6	6	7	5	V	5.3
Erica tetralix	4	3	3	4	4	4	3	3	4	3	4	3	3	3	3	V	3.4
Myrica gale	4	5	6	2	5	5	3	4	.	5	2	3	5	5	4	V	4.2
Deschampsia flexuosa	.	.	.	3	.	.	.	.	.	.	.	.	1	3	.	I	0 5
Molinia caerulea	4	3	5	4	5	5	3	4	5	6	5	4	5	5	3	V	4.4
Carex echinata	2	2	3	.	.	.	.	3	.	.	1	1	1	.	1	III	0.9
C. limosa	.	.	+	2	.	.	.	.	.	2	.	.	.	.	.	I	0.3
C. pauciflora	2	2	3	3	.	.	.	.	.	1	.	.	.	.	.	II	0.7
Eriophorum angustifolium	5	5	3	6	5	4	3	6	3	4	5	4	3	2	3	V	4.1
E. vaginatum	3	2	.	3	4	3	2	+	2	2	3	.	.	.	2	IV	1.8
Juncus squarrosus	1	.	2	.	.	.	.	2	.	.	.	2	.	.	.	II	0.5
Schoenus nigricans	2	.	+	.	.	.	.	.	.	4	.	.	.	2	.	II	0.6
Narthecium ossifragum	3	2	3	2	2	+	1	4	2	3	3	2	3	3	1	V	2.3
Rhynchospora alba	.	+	.	1	.	2	.	2	4	3	.	+	.	.	.	III	0.9
Trichophorum cespitosum	4	3	4	5	5	3	4	3	6	5	7	6	4	3	4	V	4.4
Drosera anglica	2	2	2	3	2	1	.	3	3	2	1	2	.	.	1	IV	1.6
D. rotundifolia	1	2	.	3	3	3	2	3	3	2	3	2	2	1	+	V	2.1
Menyanthes trifoliata	.	.	+	.	.	.	.	+	.	2	.	.	.	.	.	I	0.3
Pedicularis sylvatica	.	.	2	+	.	.	1	.	.	1	.	.	.	1	.	II	0.4
Pinguicula vulgaris	.	.	.	1	.	.	2	.	.	1	.	.	2	+	.	II	0 5
Polygala serpyllifolia	1	2	.	.	.	+	1	1	.	.	.	.	2	3	2	III	0.9
Potentilla erecta	2	.	.	1	2	+	2	3	.	2	2	2	3	1	2	IV	1.5
Aulacomnium palustre	.	1	.	.	.	.	.	.	.	.	1	.	.	.	.	I	0.1
Breutelia chrysocoma	.	1	2	.	.	.	.	.	.	1	.	.	2	.	.	II	0.4
•*Campylopus atrovirens*	.	.	1	2	1	2	2	.	3	.	.	3	2	.	.	IV	1.1
C. flexuosus	.	.	.	.	.	1	.	.	.	.	1	.	.	.	.	I	0.1
C. setifolius	.	.	.	.	.	.	.	.	.	1	.	2	1	.	.	I	0.3
C. shawii	.	.	.	.	.	.	3	2	.	2	.	3	.	.	.	II	0.7
†*Hypnum cupressiforme*	.	.	2	.	.	.	+	.	.	1	1	.	.	2	.	II	0.5
Leucobryum glaucum	.	.	.	.	.	.	1	.	2	.	.	.	.	.	+	II	0.3
Rhacomitrium lanuginosum	.	3	2	3	3	3	.	.	6	4	.	3	3	+	3	IV	2.3
Sphagnum compactum	.	2	2	3	3	4	2	1	.	2	1	2	4	2	1	V	1.9
S. cuspidatum	.	3	.	3	.	3	1	2	.	.	.	.	.	.	.	II	0.8
S. imbricatum	3	4	1	2	.	.	.	.	3	.	.	3	.	.	.	II	1.1
S. magellanicum	.	.	.	5	3	3	.	.	4	.	3	.	.	.	.	II	1.2
S. palustre	4	3	.	.	.	.	2	5	.	2	.	2	.	.	.	II	1.2
S. papillosum	3	.	5	4	4	3	3	3	3	3	3	3	3	2	3	V	3.0
S. plumulosum	.	.	.	2	.	3	.	.	.	3	.	.	.	.	.	I	0.5
S. rubellum	5	5	4	5	4	4	4	5	3	4	3	3	5	4	4	V	4.1
S. strictum	.	.	.	.	.	.	+	.	.	.	.	1	.	.	.	I	0.1
‡*S. subsecundum*	.	1	+	3	2	.	2	4	.	1	.	2	1	1	.	IV	1.2
S. tenellum	.	.	.	.	3	2	2	.	.	.	.	1	.	.	2	II	0.7
Cephalozia bicuspidata	.	.	.	.	.	1	.	.	.	.	+	.	.	.	.	I	0.1
Diplophyllum albicans	.	.	.	.	.	1	.	.	.	1	2	.	.	.	.	I	0.3
Gymnocolea inflata	.	1	.	.	.	1	1	1	.	.	.	.	.	.	.	II	0.3
Lepidozia setacea	.	.	.	.	.	.	.	.	1	1	1	.	.	.	.	I	0.2
Odontoschisma sphagni	.	.	.	1	.	2	1	.	1	1	1	.	.	.	.	II	0.5
Pleurozia purpurea	1	2	2	1	3	3	2	2	4	2	2	3	3	2	2	V	2.3
Riccardia latifrons	.	.	.	.	.	1	.	.	1	1	.	.	.	.	.	I	0 2
Cladonia arbuscula	.	1	1	1	.	1	3	.	.	.	.	.	.	.	+	II	0 5
C. uncialis	.	3	3	1	2	2	3	.	1	.	1	.	.	.	.	III	1.1
Total number of species (73)	22	28	28	32	21	31	33	26	29	37	26	26	22	21	21		

Mean number of species per relevé = 26.9.

• var. *falcatus* in 12. † var. *ericetorum* in 3, 10, and 11. ‡ var. *auriculatum* in 2, 3, 4, 5, 7, 8, 10, 12, and 13.

ADDITIONAL SPECIES IN LIST

1. *Equisetum palustre* 1.
2. *Carex rostrata* 1.
3. *Lycopodium selago* +, *Carex dioica* 2, *Hylocomium splendens* 2.
4. *Lophozia ventricosa* 1.
6. *Mylia taylori* 1.
7. *Juncus effusus* 1, *Galium saxatile* +, *Polytrichum commune* +.
8. *Carex nigra* +.
9. *Empetrum nigrum* 3, *Dicranum scoparium* 1, *Pleurozium schreberi* 1, *Sphagnum fuscum* 3, *Calypogeia sphagnicola* +, *Cephalozia media* 1, *Mylia anomala* 2.
10. *Potamogeton polygonifolius* 2, *Utricularia minor* 1, *Cephalozia connivens* 1.
11. *Cephalozia macrostachya* +.

LOCALITIES

1. Kirkibost; 2. near Loch Meodal; 3. Loch nan Eilean; 4. Beinn a' Mhadaidh; 5. Uchd Mor; 6. Lochain Dubha; 7. Ben Suardal; 8. Loch Sligachan; 9. Loch Airigh na Saorach; 10. Sligachan; 11. Kyleakin; 12. Camasunary; 13, 14. Blà Bheinn; 15. Coire na Creiche.

TABLE 4.29

Class	OXYCOCCO-SPHAGNETEA
Order	SPHAGNETALIA MAGELLANICI
Alliance	**Erico-Sphagnion**
Association	*Calluneto-Eriophoretum*

	1	2	3	4	5		
Reference Number	B67 092	B68 111	B68 171	B68 172	B67 062		
Map Reference	657 113	446 708	222 417	222 417	756 212		
Altitude (feet)	400	900	1000	1000	1250		
Aspect (degrees)	270	.	180	180	.		
Slope (degrees)	3	.	2	3	.		
Cover (per cent)	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	C	D
Calluna vulgaris	5	7	6	5	7	V	6.0
Empetrum nigrum	4	6	5	3	3	V	4.2
Erica tetralix	.	4	3	3	.	III	2.0
Vaccinium myrtillus	.	.	3	4	3	III	2.0
Molinia caerulea	3	3	2	2	2	V	2.4
Eriophorum angustifolium	4	3	4	3	3	V	3.4
E. vaginatum	7	7	8	8	7	V	7.4
Juncus squarrosus	3	.	2	1	2	IV	1.6
Trichophorum cespitosum	.	.	3	2	3	III	1.6
Polygala serpyllifolia	2	.	+	.	.	II	0.6
Potentilla erecta	3	.	3	.	2	III	1.6
Campylopus flexuosus	1	.	.	1	1	III	0.6
Dicranum scoparium	2	3	.	.	1	III	1.2
Hylocomium splendens	3	3	3	2	5	V	3.2
**Hypnum cupressiforme*	3	.	.	.	3	II	1.2
Pleurozium schreberi	2	3	2	2	1	V	2.0
Rhacomitrium lanuginosum	2	5	+	5	.	IV	2.6
Rhytidiadelphus loreus	.	4	3	1	3	IV	2.2
Sphagnum capillaceum	6	4	5	5	4	V	4.8
S. tenellum	4	.	3	4	.	III	2.2
Cladonia arbuscula	2	+	.	1	.	III	0.8
C. coccifera	3	.	.	.	1	II	0.8
C. uncialis	1	.	.	1	.	II	0.4
Total number of species (39)	24	16	20	18	22		

* var. *ericetorum* in 1 and 5. Mean number of species per relevé = 20.0.

ADDITIONAL SPECIES IN LIST

1. *Drosera rotundifolia* 1, *Leucobryum glaucum* 2, *Mylia taylori* 4, *Odontoschisma sphagni* 2, *Cladonia pyxidata* 3.
2. *Calypogeia muellerana* 1, *Cephalozia bicuspidata* +, *Diplophyllum albicans* 1.
3. *Erica cinerea* 2, *Carex echinata* 2, *Sphagnum papillosum* 3.
5. *Aulacomnium palustre* +, *Sphagnum fuscum* 2, *Lophozia incisa* 1, *Cladonia impexa* 1, *C. rangiformis* 1.

LOCALITIES

1. near Loch Meodal; 2. Coire Mhic Eachainn; 3, 4. Healaval Bheag; 5. Sgùrr na Coinnich.

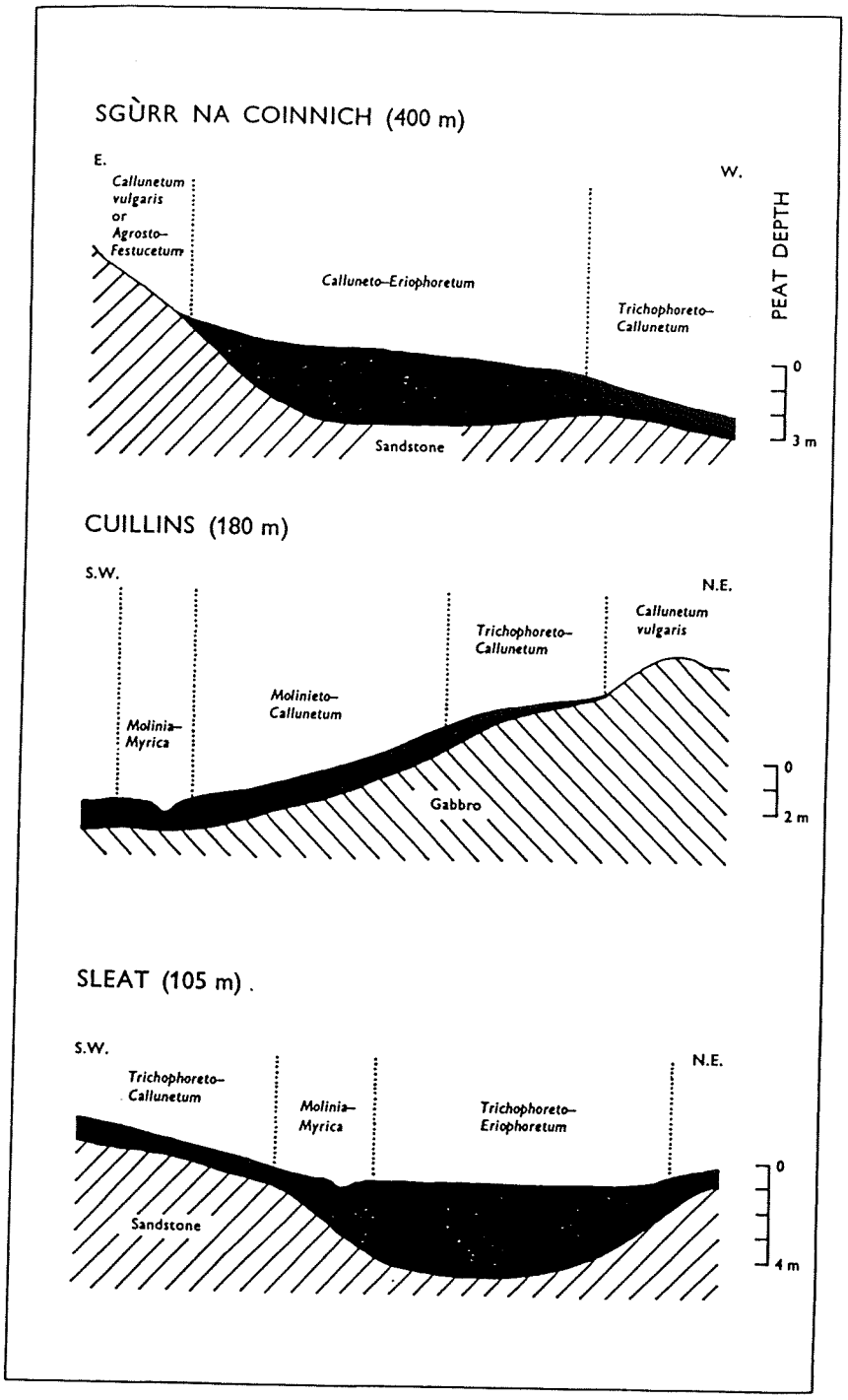
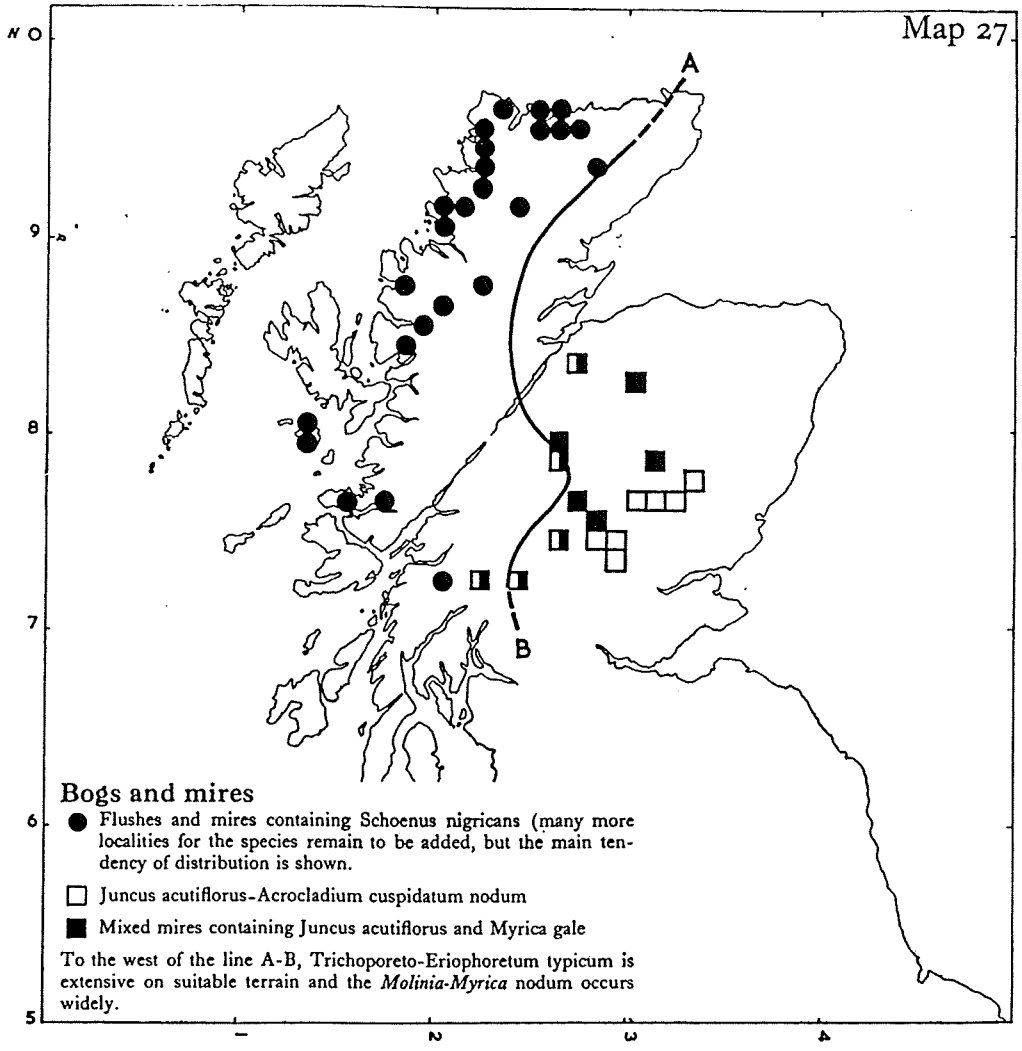


Figure 4. Relationships of bog communities to peat depth, slope, and altitude in the Kyleakin area, the Cuillins, and the Sleat Peninsula.

TABLE 5.3

	pH	K_{corr} (μmhos)	Calcium content (milligrams/litre)	Number of readings
Bogs (Oxycocco–Sphagnetea)	3.6–4.8	20–47 (33)	0.1–0.6 (0.3)	17
Poor-fens (Caricion canescentis-fuscae)	4.4–5.9	81–150 (108)	0.2–2.0 (0.9)	15
Intermediate-fens (Sphagno–Tomenthypnion)	4.8–5.3	110–137 (121)	2.2–2.5 (2.3)	5
Rich-fens (Tofieldietalia)	5.2–7.2	96–400 (220)	0.3–14.8 (5.9)	26

Figures in parentheses are mean values.


Map 27
A
B
Bogs and mires
Flushes and mires containing Schoenus nigricans (many more localities for the species remain to be added, but the main tendency of distribution is shown.
Juncus acutiflorus-Acrocladium cuspidatum nodum
Mixed mires containing Juncus acutiflorus and Myrica gale
To the west of the line A-B, Trichoporeto-Eriophoretum typicum is extensive on suitable terrain and the Molinia-Myrica nodum occurs widely.

Coastal vegetation

TABLE 4.7

Class	ASTERETEA TRIPOLIUM
Order	GLAUCETO–PUCCINELLIETALIA
Alliance	**Puccinellion maritimae**
Association	*Puccinellietum maritimae*

Subassociation	*Puccinellia–Ascophyllum nodosum*								*Puccinellia–Festuca rubra*							
	1	2	3	4	5	6			7	8	9	10	11	12		
Reference Number	B68	B68	B68	B68	B68	B68			B68	B68	B68	B68	B68	B68		
Map reference	133 540	134 540	289 565	277 703	357 699	205 323			058 495	142 416	141 415	057 495	092 527	093 527		
Altitude (feet)	273	273	222	158	116	385			305	519	520	305	627	627		
Cover (per cent)	.	.	.	.	.	.			.	.	.	.	75	60		
Plot area (square metres)	100	100	100	100	100	100			90	100	100	95	75	100		
	4	4	4	4	4	4	C	D	4	4	4	4	4	4	C	D
Festuca rubra	.	.	.	.	.	.			3	6	5	5	4	5	V	4.6
Puccinellia maritima	8	8	8	7	6	8	V	7.5	6	8	7	5	9	7	V	7.0
Armeria maritima	5	4	5	8	3	7	V	5.3	8	5	4	3	5	3	V	4.7
Aster tripolium	.	.	.	.	2	7	II	1.5	.	.	.	.	.	.		
Euphrasia officinalis agg.	.	.	.	.	.	.			.	.	.	.	2	3	II	0.8
Glaux maritima	4	5	5	4	3	5	V	4.3	5	5	3	+	.	.	IV	2.3
Leontodon autumnalis	.	.	.	.	.	.			.	.	.	+	+	.	II	0.3
Plantago coronopus	.	.	.	.	.	.			.	.	.	.	4	4	II	1.3
P. lanceolata	.	.	.	.	.	.			.	.	.	.	2	4	II	1.0
P. maritima	6	6	5	5	7	3	V	5.3	4	5	4	9	6	4	V	5.3
Spergularia media	.	.	.	3	.	4	II	1.2	.	.	4	.	.	.	I	0.7
Trichostomum brachydontium	.	.	.	.	.	.			.	.	.	.	3	3	II	1.0
Ascophyllum nodosum	7	5	6	5	3	.	V	4.3	.	.	.	.	.	.		
Total number of species (20)	5	5	5	6	6	8			5	5	7	7	10	10		

Mean number of species per relevé = 5.8.
Total number of species in subassociation = 9.

Mean number of species per relevé = 7.3.
Total number of species in subassociation = 16.

ADDITIONAL SPECIES IN LIST

6. *Cochlearia officinalis* agg. 2, *Triglochin maritima* 3.
9. *Salicornia europaea* 2.
10. *Grimmia maritima* +.
11. *Daucus carota* 3.
12. *Senecio vulgaris* 2, *Campylium protensum* 1.

LOCALITIES

1, 2. Loch Ainort; 3. Loch Slapin; 4. Loch na Dal; 5. Camas Croise; 6. Ullinish; 7, 10. Loch Sligachan; 8, 9. Loch Eyre; 11, 12. Lealt.

TABLE 4.8

Class: ASTERETEA TRIPOLIUM
Order: GLAUCETO – PUCCINELLIETALIA
Alliance: Armerion maritimae

Association	*Juncus gerardii–Carex extensa*																			*Armeria maritima–Grimmia maritima*										
Reference Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	C	D	18	19	20	21	22	23	24	25	26	C	D
	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68			B68	B68	B68	B68	B68	B68	B68	B68	B68		
Map Reference	129	119	131	127	132	278	290	135	143	177	178	355	116	117	126	130	144			094	148	175	145	176	199	203	204	212		
	597	305	597	596	540	703	565	485	416	273	273	698	308	308	596	597	416			527	154	297	131	297	222	323	323	583		
Altitude (feet)	269	437	269	268	273	158	222	418	519	433	433	116	427	427	268	269	519			627	507	420	475	420	613	385	385	189		
Cover (percent)	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			20	25	30	250	25	10	25	20	30		
Plot area (square metres)	100	100	100	100	100	100	100	100	100	100	100	100	20	75	90	60	100			50	50	30	100	25	100	50	90	100		
	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			1	2	4	4	4	4	2	4	4		
Agrostis stolonifera	.	4	3	3	4	4	3	3	.	3	3	4	4	4	5	3	.	V	3.2	.	.	.	.	.	.	.	.	.	I	0.4
Festuca rubra	.	3	4	3	2	5	4	2	3	4	3	4	4	6	3	.	5	V	3.3	3	5	6	7	2	6	3	5	5	V	4.6
Blysmus rufus	.	.	2	.	.	.	.	2	4	2	.	4	.	.	.	5	6	III	1.5	.	.	.	.	.	.	.	.	.		
Carex extensa	.	1	3	3	4	.	.	.	3	2	.	3	.	.	3	.	3	III	1.6	.	.	.	.	.	.	.	.	.		
C. flacca	.	.	.	.	.	.	.	.	.	.	.	.	3	4	3	.	1	II	0.6	.	.	.	.	.	.	.	.	.		
C. scandinavica	.	.	2	.	.	.	3	.	2	2	.	.	.	.	.	.	.	II	0.5	.	.	.	.	.	.	.	.	.		
Juncus gerardii	5	9	3	4	6	5	5	7	7	3	8	7	8	9	8	8	6	V	6.3	.	.	.	.	.	.	.	.	.		
Triglochin maritima	.	.	.	.	.	.	.	1	2	3	3	3	.	2	.	4	+	III	1.1	.	.	.	.	.	.	.	.	.		
Armeria maritima	6	4	4	8	2	7	4	4	3	6	4	3	3	5	6	4	3	V	4.5	9	8	8	7	9	8	7	8	8	V	8.0
Aster tripolium	.	.	.	.	.	.	.	5	.	5	4	4	.	.	.	.	.	II	1.0	.	.	.	.	.	.	.	.	.		
Cochlearia officinalis agg.	.	.	.	.	.	.	.	+	.	.	.	1	.	1	.	.	.	I	0.2	5	.	.	.	1	.	.	.	1	II	0.8
Glaux maritima	5	3	3	.	3	3	4	5	4	4	3	4	.	5	4	4	4	V	3.4	.	.	.	.	.	.	.	.	.		
Leontodon autumnalis	.	.	.	.	1	2	3	+	.	.	.	.	.	.	.	.	3	II	0.6	.	.	.	4	.	.	.	.	4	II	0.9
Ligusticum scoticum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	2	.	3	II	0.6
Plantago coronopus	.	.	.	3	3	3	1	.	.	.	.	.	.	.	.	.	.	II	0.6	.	.	.	3	.	1	.	.	.	II	0.4
P. maritima	8	7	8	3	7	7	6	6	4	7	3	5	4	3	4	3	4	V	5.2	3	5	5	3	3	2	5	6	5	V	4.1
Sagina maritima	.	.	.	5	3	.	.	.	.	.	.	.	+	.	.	.	.	I	0.5	.	+	.	.	1	.	2	.	3	III	0.8
Sedum anglicum	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	.	.	4	.	2	II	0.6
Spergularia media	.	.	.	.	.	.	.	.	.	.	1	2	.	.	.	.	.	I	0.2	.	.	.	.	.	.	.	.	.		
Thymus drucei	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	2	.	.	.	.	1	II	0.3
Amblystegium serpens	.	+	.	3	.	.	.	.	.	.	.	.	.	.	.	.	.	I	0.2	.	.	.	.	.	.	.	.	.		
Grimmia maritima	.	.	1	1	4	.	3	.	.	.	.	.	3	1	.	.	1	II	0.7	4	4	5	4	4	2	3	3	3	V	3.6
Trichostomum brachydontium	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	.	.	.	1	1	.	.	.	II	0.2
Anaptychia fusca	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	2	.	2	.	3	.	4	.	III	1.2
Ramalina siliquosa	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.			.	4	.	.	3	.	.	5	4	III	1.8
Xanthoria parietina	.	.	.	.	.	.	.	.	.	.	.	.	+	.	.	.	.			.	3	2	.	.	.	.	4	.	II	1.0
Total number of species (43)	5	8	10	10	11	8	11	11	9	11	9	12	11	13	8	7	13			5	8	7	9	8	7	10	11	13		

Mean number of species per relevé = 9.8.
Total number of species in association = 28.

Mean number of species per relevé = 8.7.
Total number of species per association = 26.

ADDITIONAL SPECIES IN LIST

1. *Suaeda maritima* 3.
7. *Bryum* sp. 1.
13. *Puccinellia maritima* 1, *Frullania germana* 2.
14. *Carex distans* 2, *C. serotina* 2, *Eleocharis uniglumis* 2.
17. *Eriophorum angustifolium* 1, *Cratoneuron filicinum* +.
20. *Ochrolechia parella* 3, *Parmelia glabratula* 3.
21. *Cerastium atrovirens* 4.
24. *Lotus corniculatus*, 2, *Verrucaria maura* 2.
25. *Empetrum nigrum* 2, *Rumex crispus* 1, *Ramalina curnowii* 1.
26. *Camptothecium sericeum* 2, *Collema* sp. 1.

LOCALITIES

1, 3, 4, 15, 16. Caolas Scalpay; 2, 13, 14. Loch Caroy; 5. Loch Ainort; 6. Loch na Dal; 7. Loch Slapin; 8. Loch Portree; 9, 17. Loch Eyre; 10, 11. Roag; 12. Camas Croise; 18. Lealt; 19, Meanish; 20, 22. Loch Caroy (west side); 21. Neist; 23. Trumpan; 24, 25. Ullinish; 26. Camas Malag.

TABLE 4.9

Class	CAKILETEA MARITIMAE										
Order	CAKILETALIA MARITIMAE										
Alliance	**Atriplicion littoralis**										
Association	*Atriplex glabriuscula–Rumex crispus*										
	1	2	3	4	5	6	7	8	9		
Reference Number	B68	B68	B68	B68	B68	B68	B68	B68	B68		
	118	153	140	198	201	038	128	036	037		
Map Reference	305	260	415	222	323	376	596	375	376		
	437	566	520	612	385	663	268	661	663		
Altitude (feet)	20	20	15	10	25	25	5	10	25		
Cover (per cent)	50	70	50	100	100	80	40	60	75		
Plot area (square metres)	16	4	16	4	4	4	4	4	4	C	D
Equisetum arvense	.	1	.	.	.	3	.	.	+	II	0.6
Agrostis stolonifera	.	.	+	3	3	2	.	.	.	III	1.0
Agropyron repens	.	2	.	.	2	.	.	.	.	II	0.4
Festuca rubra	2	.	3	4	3	3	.	.	.	III	1.6
Holcus lanatus	.	3	.	.	1	.	.	.	.	II	0.4
Juncus bufonius	.	2	.	.	+	3	.	3	.	III	1.0
J. gerardii	.	.	.	.	.	.	.	3	3	II	0.7
Scirpus maritimus	.	.	.	.	.	.	.	7	6	II	1.4
Triglochin maritima	+	2	.	.	.	.	.	2	.	II	0.4
Armeria maritima	+	3	4	2	+	.	4	.	.	IV	1.7
Atriplex glabriuscula	8	7	6	6	6	6	7	4	3	V	5.9
Cochlearia officinalis agg.	.	.	2	.	.	.	1	.	.	II	0.3
Galium aparine	2	3	3	5	4	6	.	2	3	V	3.1
Glaux maritima	3	1	4	.	.	.	3	.	.	III	1.2
Leontodon autumnalis	.	.	.	.	2	1	.	.	.	II	0.3
Ligusticum scoticum	.	.	.	5	1	.	.	.	.	II	0.7
Lycopus europaeus	.	2	.	.	+	.	.	.	.	II	0.3
Plantago maritima	.	.	3	.	.	.	.	+	.	II	0.4
Polygonum persicaria	1	+	.	.	.	.	.	.	.	I	0.2
Rumex crispus var. *triangulatus*	4	5	5	7	6	3	3	3	3	V	4.3
Sonchus arvensis	.	5	.	.	.	.	.	.	+	II	0.7
Stellaria media	5	+	4	5	3	.	6	+	+	V	2.9
Tripleurospermum maritimum	3	3	3	1	8	.	.	.	+	IV	2.1
Total number of species (48)	11	18	12	13	19	13	9	15	13		

Mean number of species per relevé = 13.6.

ADDITIONAL SPECIES IN LIST

1. *Rumex acetosa* 1.
2. *Carex otrubae* 4, *Juncus articulatus* 2.
4. *Lolium perenne* 1, *Plantago coronopus* 1, *Silene maritima* 4.
5. *Galium verum* +, *Ranunculus acris* 1, *Sedum rosea* 1, *Senecio jacobea* 1.
6. *Agropyron junceiforme* 2, *Myosotis discolor* +, *Plantago major* 2, *Sagina procumbens* 3.
7. *Salicornia europaea* 2, *Spergularia media* 3, *Suaeda maritima* 6.
8. *Eleocharis palustris* +, *Amblystegium serpens* 1, *Grimmia maritima* +, *Pottia heimii* +, *Trichostomum brachydontium* 2.
9. *Achillea ptarmica* +, *Scutellaria galericulata* +.

LOCALITIES

1. Loch Caroy; 2. Waternish; 3. Loch Eyre; 4. Ard Beag; 5. Ullinish; 6, 8, 9. Totscore; 7. Caolas Scalpay.

TABLE 4.3

Class	ASPLENIETEA RUPESTRIS
Order	POTENTILLETALIA CAULESCENTIS
Alliance	**Potentillion caulescentis**
Association	*Asplenium marinum–Grimmia maritima*

	1	2	3	4	5	6	7	8		
Reference Number	B68	B68	B68	B68	B68	B68	B68	B68		
	147	158	211	288	325	004	200	202		
Map reference	141	504	583	558	508	410	222	323		
	477	444	189	157	186	762	613	385		
Altitude (feet)	100	50	25	10	30	50	5	20		
Aspect (degrees)	90	135	270	90	90	315	0	270		
Slope (degrees)	80	90	75	80	90	80	90	80		
Cover (per cent)	60	50	60	80	100	50	40	60		
Plot area (square metres)	1	0.5	2	4	1	1	0.5	2	C	D
Asplenium adiantum-nigrum	.	.	.	.	.	.	3	8	II	1.4
A. marinum	9	8	8	8	9	8	8	.	V	7.3
Festuca rubra	.	4	4	3	.	4	3	4	IV	2.8
Armeria maritima	3	.	5	.	4	.	4	4	IV	2.5
Ligusticum scoticum	2	.	2	.	.	.	.	.	II	0.5
Plantago maritima	.	.	.	.	1	2	5	3	III	1.4
Tripleurospermum maritimum	4	.	.	3	.	3	.	.	II	1.3
Grimmia maritima	2	3	.	3	4	3	3	4	V	2.8
**Trichostomum brachydontium*	3	2	3	4	3	2	.	3	V	2.5
Total number of species (20)	7	5	8	6	6	8	6	8		

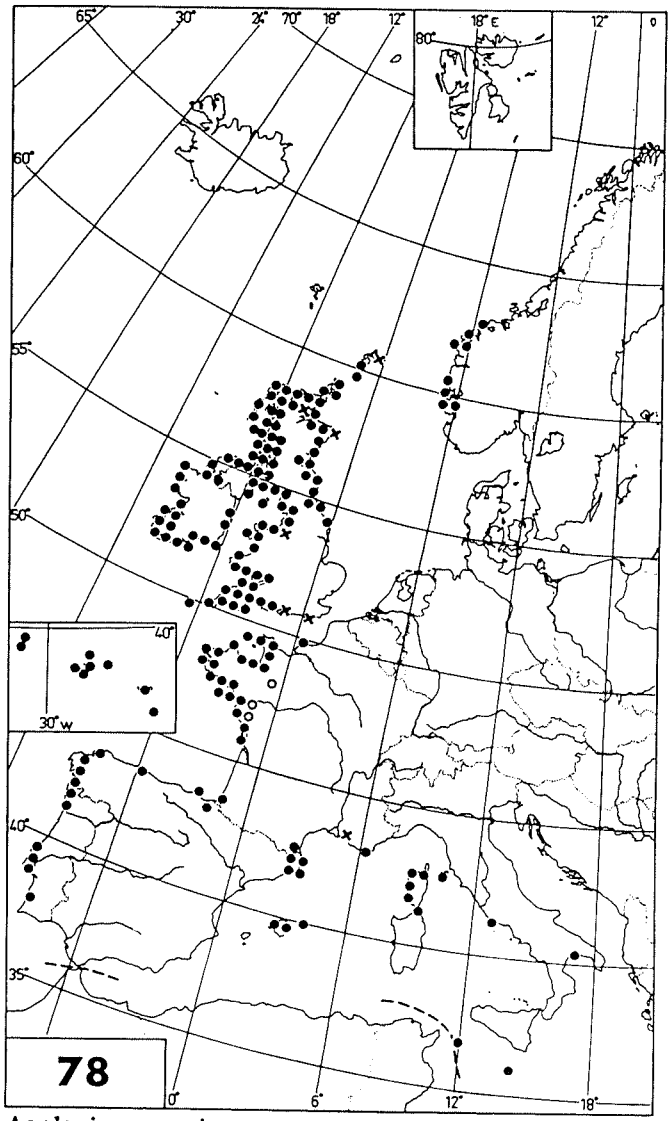
* var. littorale in 5. Mean number of species per relevé = 6.7.

ADDITIONAL SPECIES IN LIST

1. *Conocephalum conicum* +.
2. *Asplenium ruta-muraria* 5.
3. *Agrostis stolonifera* 3, *Euphrasia officinalis* agg. 1, *Leontodon autumnalis* 2.
4. *Cochlearia officinalis* agg. 4.
5. *Bryum alpinum* 2.
6. *Sedum rosea* 1, *Ramalina siliquosa* 3.
8. *Polypodium vulgare*, 3, *Sedum anglicum* 4.

LOCALITIES

1. Waterstein Head; 2. Rubha na h'Airde Glaise; 3. Camas Malag; 4. Drinen; 5. Loch Scavaig; 6. Meall Tuath; 7. Ard Beag; 8. Ullinish Bay.



Asplenium marinum

TABLE 4.34

Class	MOLINIO-ARRHENATHERETEA						
Order	ARRHENATHERETALIA						
Alliance	**Cynosurion cristati**						
Nodum	*Maritime grassland nodum*						
	1	2	3	4	5		
Reference Number	B68 001	B68 146	B67 030	B68 197	B68 002		
Map Reference	409 743	132 475	320 345	222 612	410 743		
Altitude (feet)	75	100	300	30	50		
Aspect (degrees)	270	.	0	0	0		
Slope (degrees)	6	.	4	10	20		
Cover (per cent)	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	C	D
Calluna vulgaris	3	2	2	.	.	III	1.4
Pteridium aquilinum	1	1	3	.	.	III	1.0
Agrostis stolonifera	4	5	5	4	4	V	4.4
Anthoxanthum odoratum	5	.	4	4	.	III	2.6
Arrhenatherum elatius	.	1	3	.	2	III	1.2
Cynosurus cristatus	5	4	3	.	.	III	2.4
Dactylis glomerata	3	3	4	4	7	V	4.2
Festuca rubra	7	5	6	6	5	V	5.8
F. vivipara	3	.	2	3	5	IV	2.6
Holcus lanatus	5	4	6	5	4	V	4.8
Sieglingia decumbens	4	4	2	.	.	III	2.0
Carex binervis	.	.	2	.	3	II	1.0
C. pulicaris	2	1	2	.	.	III	1.0
Angelica sylvestris	+	.	.	4	5	III	2.0
Bellis perennis	3	3	.	.	.	II	1.2
Euphrasia brevipila	3	3	+	.	.	III	1.4
Heracleum sphondylium	.	.	.	3	1	II	1.0
Hypericum pulchrum	.	+	.	.	2	II	0.6
Lathyrus montanus	1	.	1	.	.	II	0.4
L. pratensis	.	.	.	1	3	II	0.8
Leontodon autumnalis	4	2	.	.	2	III	1.6
Linum catharticum	.	3	.	3	.	II	1.2
Lotus corniculatus	3	3	+	4	.	IV	2.2
Plantago lanceolata	3	3	3	2	5	V	3.2
P. maritima	5	5	4	5	3	V	4.4
Polygala serpyllifolia	3	2	2	.	.	III	1.4
Potentilla erecta	3	3	4	.	2	IV	2.4
Primula vulgaris	.	.	.	2	3	II	1.0
Prunella vulgaris	3	2	1	2	.	IV	1.6
Ranunculus acris	+	2	.	.	.	II	0.6
Rhinanthus minor agg.	1	.	1	.	.	II	0.4
Rumex acetosa	2	.	.	.	3	II	1.0
Senecio vulgaris	.	2	.	+	2	III	1.0
Silene maritima	.	.	.	3	2	II	1.0
Thymus drucei	.	.	+	.	1	II	0.6
Trifolium pratense	2	.	.	4	.	II	1.2
T. repens	3	.	1	.	.	II	0.8
Viola riviniana	1	3	2	.	.	III	1.2
Ctenidium molluscum	.	1	2	.	.	II	0.8
**Hypnum cupressiforme*	2	.	2	.	.	II	0.8
Trichostomum crispulum	.	1	.	1	.	II	0.4
Frullania tamarisci	.	3	+	+	3	IV	1.6
Total number of species (65)	32	33	35	23	24		

* var. *ericetorum* in 3. Mean number of species per relevé = 29.4.

ADDITIONAL SPECIES IN LIST

1. *Carex pilulifera* 1, *Luzula campestris* 1, *Mnium undulatum* 1.
2. *Carex flacca* 3, *Hieracium pilosella* 1, *Plantago coronopus* 4, *Sedum anglicum* 4, *Campylopus flexuosus* 1, *Funaria attenuata* 1.
3. *Erica cinerea* 2, *Salix repens* ssp. *argentea* 2, *Luzula campestris* 2, *Galium saxatile* 1, *Veronica serpyllifolia* 1, *Hylocomium splendens* 2, *Pseudoscleropodium purum* 2.
4. *Anthyllis vulneraria* 2, *Armeria maritima* 4, *Centaurea nigra* 2, *Lophocolea bidentata* 1.
5. *Poa pratensis* 3, *Cerastium holosteoides* 1, *Sagina procumbens* +.

LOCALITIES

1, 5. Duntulm; 2. Neist Point; 3. Fiskavaig; 4. Trumpan.

7. COASTAL COMMUNITIES

Within the potential woodland zone on Skye, there is a consistent geographical pattern in the present distribution of woodlands, dwarf-shrub heaths, grasslands, mires, and inland cliff communities, with some associations centred on the poorer, acidic soils of the granite and sandstone regions, whereas others are largely restricted to the richer soils of the basalt and/or limestone areas. Soils developed on gabbro tend to occupy an intermediate position between these two broad groups. Similarly the freshwater lochs show a floristic pattern that apparently reflects differences in the surrounding geology. In contrast the coastal communities on Skye tend to be more uniformly distributed around the island (see Fig. 5), and they show little dependence on the rock type. In extreme coastal habitats it is probable that ecological factors such as exposure and salinity are of such overriding importance in influencing the floristic composition and structure and the vegetational zonation of the saltmarshes, sea-cliffs, and maritime grasslands, that factors such as soil base-status tend to be of less importance than in inland habitats (Malloch, 1971). In view of their exposure, high salinity, and overall instability, it is unlikely that these coastal habitats could have ever supported woodland, although some fragments of coastal scrub, generally dominated by *Corylus avellana*, persist on steep, talus slopes below some of the larger sea-cliffs.

The larger basalt sea-cliffs in northern Skye are up to 1000 feet (305 m) high. The cliff-top vegetation is generally a species-rich maritime grassland differing from inland grasslands in the dominance of *Agrostis stolonifera*, *Dactylis glomerata*, *Holcus lanatus*, and *Festuca rubra*. This grassland type occurs as a narrow zone between the typically rather low-grown species-rich *Calluna vulgaris–Sieglingia decumbens* heath and the open cliff-edge communities. *Alchemilla alpina*, *Anthyllis vulneraria*, *Plantago maritima*, *Rubus saxatilis*, *Saxifraga hypnoides*, *Silene acaulis*, and *S. maritima* frequently occur in these open, rather unstable, cliff-edge situations. The flora and vegetation of the upper cliff-ledges and rock crevices of the larger sea-cliffs are rather similar to those of inland basalt cliffs, for the large, stable and periodically irrigated ledges generally support communities dominated by 'tall herbs' (*Luzula sylvatica–Silene dioica* Association). This coastal association differs from the inland lowland stands in the greater abundance of *Calluna vulgaris*, *Sedum rosea*, and *Silene dioica*. Some of the cliffs support some trees and shrubs, mainly *Juniperus communis* ssp. *nana*, *Lonicera periclymenum*, *Populus tremula*, *Sorbus aucuparia* and, more rarely, *S. rupicola*. *Vicia sylvatica* appears to be restricted on Skye to coastal cliff-ledges. Several montane plants occur on smaller ledges and in crevices on the basic sea-cliffs. These include *Alchemilla alpina*, *Antennaria dioica*, *Draba incana*, *Galium boreale*, *Rubus saxatilis*, *Saxifraga hypnoides*, *S. oppositifolia*, *Silene acaulis*, *Anoectangium aestivum*, *Distichium capillaceum*, *Grimmia apocarpa* var. *homodictyon*, and *G. funalis*. More local components on the basic sea-cliffs include *Cardaminopsis petraea*, *Dryas octopetala*, *Oxyria digyna*, *Thalictrum alpinum*, and *Grimmia torquata*. Similar mixed assemblages of lowland, coastal, and inland montane species on sea-cliffs in western Norway have been described by Nordhagen (1922) and Skogen (1965).

The influence of sea-spray becomes increasingly important at lower levels on the larger sea-cliffs, resulting in the characteristic cliff-ledge community of moderately exposed sites dominated by *Armeria maritima* with several associated halophytes (*Armeria maritima–Grimmia maritima* Association), including *Ligusticum scoticum*. This association appears to be largely indifferent to rock type on Skye, as does the *Asplenium marinum–Grimmia maritima* Association of more sheltered recesses and overhangs on coastal cliffs.

Possible ecological factors influencing the floristic composition of the *Atriplex glabriuscula–Rumex crispus* shingle-beach communities include the age, stability, and substrate of the beach (see Scott, 1963*a*). The Skye data are too limited, however, to provide a basis for discussion of the influence of such factors in the stands examined.

Variations in salinity appear to be important ecological factors in the differentiation of the various saltmarsh communities on Skye. Observations on the sodium chloride content of soils from the three principal saltmarsh communities on Skye indicate that it decreases in the order *Puccinellia maritima–Ascophyllum nodosum* Subassociation, *Puccinellia maritima–Festuca rubra* Subassociation, and *Carex extensa–Juncus gerardii* Association. The soil data closely follow the observed vegetational zonation (cf. Tyler, 1971). The first community characterises the lowest areas in the saltmarshes, which are most frequently submerged by the sea (at least 8 hours a day); the second community invariably occurs as a transitional zone between the lower and upper saltmarshes; and the third community is restricted to the uppermost areas. Further factors influencing the saltmarsh vegetation on Skye may include drainage, fluctuations in water table, grazing, exposure, and physical features of the substrate, in particular the particle size.

An important floristic feature of several of the coastal habitats on Skye is the occurrence of many so-called 'weed' species in apparently natural habitats. Species such as *Plantago lanceolata* and *Senecio vulgaris* are relatively common in maritime grasslands and dwarf-shrub heaths. *Galium aparine*, *Rumex crispus*, and *Stellaria media* occur frequently in shingle beach communities. *Agropyron repens*, *Equisetum arvense*, *Plan-*

tago major, *Polygonum aviculare*, *P. persicaria*, *Sagina procumbens*, and *Sonchus arvensis* are also recorded from shingle beaches on Skye. The fore-dune community at Glenbrittle provides an apparently natural habitat for *Sonchus asper*. Ledges on sea-cliffs support *Chamaenerion angustifolium*, *Lapsana communis*, *Plantago lanceolata*, and *Urtica dioica*. Similar weed species occur in coastal habitats in western Norway (see Nordhagen, 1922; Skogen, 1965).

The significance of such coastal environments as providing suitable open habitats for several of these weed species has been discussed by Nordhagen (1940) who regards drift-line communities as ancient and wholly natural habitats, from which common ruderal species may well have spread into man-made habitats (see also Faegri, 1963). There is the possibility of ecotypic differentiation between the plants occuring in natural, coastal habitats and in artificial, man-made areas, for several of these 'weedy' species are extremely variable in morphology. The basis for this variation has not been investigated, but it may well be genotypic rather than phenotypic (Lövkvist, 1962).

There are, however, some species on Skye that are only known to occur in artificial, man-made habitats. These include *Brassica napus*, *B. rapa*, *Capsella bursa-pastoris*, *Chenopodium album*, *Rumex obtusifolius*, *Sinapsis alba*, and *Spergula arvensis*, and the recent introductions *Juncus tenuis* and *Matricaria matricarioides*. Some species on Skye are only known in anthropogenic meadow communities or by streams within crofting townships, for example *Aegopodium podagraria*, *Anthriscus sylvestris*, *Astrantia major*, *Chrysanthemum leucanthemum*, *C. segetum*, *C. vulgare*, *Cicerbita macrophylla*, *Myrrhis odorata*, *Peucedanum ostruthium*, *Salix alba*, *S. fragilis*, *S. pentandra*, *S. purpurea*, and *S. viminalis*. While some of those species such as *Astrantia major*, *Cicerbita macrophylla*, and *Peucedanum ostruthium* are known introductions, it is difficult to assess the status of several other of these plants in view of their frequent associations with man and his settlements (Bradshaw, 1962). Many of the willow species in this group are widely planted as osiers, and *Aegopodium podagraria* and *Chrysanthemum vulgare* are commonly cultivated as medicinal herbs. Clapham (1953) has discussed this problem in detail, and he points out that in Scandinavia and central Europe plants like *Aegopodium podagraria*, *Anthriscus sylvestris*, *Chrysanthemum vulgare*, and *Tussilago farfara* occur in apparently natural woodland and coastal communities, and that there may be no reason to doubt their native status in Britain. Many of the meadow and weedy species that are only known on Skye today in anthropogenic habitats may well have once occurred in 'tall herb' woodlands or in coastal shingle-beach or fore-dune communities, since several of the species are vigorously growing perennials, often with a strong capacity for vegetative spread and with demands for nitrophilous soils. Because of their biology, they could readily have become prominent in man-made habitats, and they may also have attracted man's attention as potential food plants or medicinal herbs, and they may thus have been introduced more widely.

Freshwater loch vegetation

Class: LITTORELLETEA
Order: LITTORELLETALIA
Alliance: **Littorellion uniflorae**
Association: *Littorella uniflora–Lobelia dortmanna*

	1	2	3	4	5	6	7	8	9	10	11		
Reference Number	B68 354	B68 025	B68 044	B68 175	B68 225	B68 327	B68 253	B68 07B	B68 291	B68 295	B68 296		
Map Reference	590 106	472 306	502 652	222 412	679 205	683 203	606 203	416 182	676 105	656 113	657 110		
Altitude (feet)	250	300	250	800	150	200	50	275	200	350	350		
Cover (per cent)	50	20	40	50	50	50	50	50	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	4		
Water depth (centimetres)	21	25	23	30	30	21	15	26	26	23	27	C	D
Equisetum fluviatile	.	.	+	.	5	.	.	.	+	.	.	II	0.6
Isoetes lacustris	.	3	.	.	.	.	.	.	.	5	.	I	0.7
Baldellia ranunculoides	.	.	.	.	.	4	5	2	.	.	.	II	1.0
Carex nigra	.	.	.	.	4	3	.	2	1	.	.	II	0.9
Eleocharis palustris	.	.	.	.	3	.	.	4	5	4	9	III	2.1
Eleogiton fluitans	.	.	.	.	.	.	.	3	5	3	.	II	1.0
Juncus articulatus	5	3	4	.	.	3	4	+	1	3	.	IV	2.3
J. bulbosus	1	.	.	4	6	4	3	.	3	5	3	IV	2.6
J. effusus	.	.	.	.	2	+	.	.	.	.	.	I	0.3
Littorella uniflora	9	5	9	5	.	.	8	5	7	7	3	V	5.3
Lobelia dortmanna	.	7	3	8	8	8	.	7	6	6	3	V	5.1
Myriophyllum alterniflorum	.	.	+	.	.	.	3	.	.	.	2	II	0.6
Ranunculus flammula	3	3	+	3	5	4	.	2	+	3	.	IV	2.3
Total number of species (18)	4	6	6	4	7	7	8	8	9	8	5		

Mean number of species per relevé = 6.6.

ADDITIONAL SPECIES IN LIST

2. *Eriocaulon septangulare* 4.
3. *Nitella* sp. +.
7. *Potamogeton coloratus* 1, *P. gramineus* 2, *P. natans* 3.

LOCALITIES

1. Loch Gauscavaig; 2. Loch nan Eilean; 3. Loch Mealt; 4. Ollisdal; 5. Lochain Dubha; 6. Loch Airigh na Saorach; 7. Loch Cill Chriosd; 8. Loch Coir' a' Ghobhainn; 9. Loch nan Dùbhrachan; 10, 11. Loch Meodal.

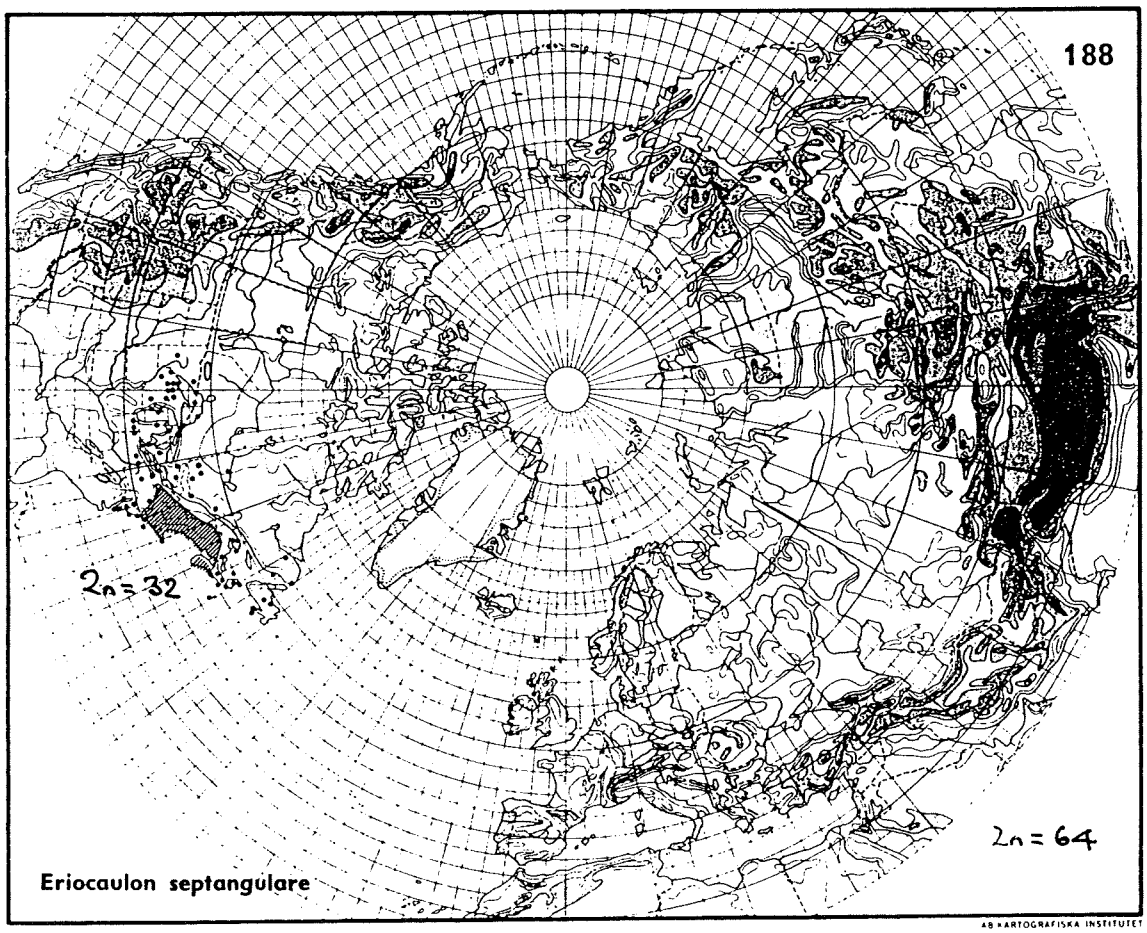


TABLE 4.11

Class	POTAMETEA
Order	MAGNOPOTAMETALIA
Alliance	**Nymphaeion albae**
Nodum	*Potamogeton natans–Nymphaea alba*

	1	2	3	4	5	6		
Reference Number	B68	B68	B68	B68	B68	B68		
	292	224	023	043	067	194		
Map Reference	676	679	472	502	494	233		
	106	205	306	652	487	605		
Altitude (feet)	200	150	300	250	450	200		
Cover (per cent)	100	90	75	50	50	90		
Plot area (square metres)	4	4	4	4	4	4		
Water depth (centimeters)	75	90	90	75	70	52	C	D
Equisetum fluviatile	3	3	3	3	.	.	IV	2.0
Eleogiton fluitans	5	.	.	.	5	.	II	1.7
Potamogeton natans	.	7	7	8	8	5	V	5.8
P. perfoliatus	.	.	.	3	2	7	III	2.0
Sparganium angustifolium	7	.	.	5	3	4	IV	3.2
Myriophyllum alterniflorum	3	.	.	+	4	5	IV	2.2
**Nymphaea alba*	6	8	6	.	3	.	IV	3.8
Chara spp.	.	.	2	.	.	3	II	0.8
Total number of species (13)	5	3	8	5	7	5		

* ssp. *occidentalis* in 2. Mean number of species per relevé = 5.5.

ADDITIONAL SPECIES IN LIST

3. *Carex rostrata* 4, *Juncus bulbosus* 3, *Sparganium minimum* +, *Menyanthes trifoliata* 4.
5. *Callitriche stagnalis* +.

LOCALITIES

1. Loch nan Dùbhrachan; 2. Lochain Dubha; 3. Loch nan Eilean; 4. Loch Mealt; 5. Loch Fada; 6. Cnoc a'Chatha.

TABLE 4.13

Class	PHRAGMITETEA
Order	PHRAGMITETALIA EUROSIBIRICA
Alliance	**Phragmition communis**
Association	*Schoenoplectus lacustris–Phragmites communis*

Subassociation	*Phragmites–Equisetum fluviatile*								*Schoenoplectus–Equisetum fluviatile*								
	1	2	3	4	5	6			7	8	9	10	11	12	13		
Reference number	B68 251	B68 248	B68 254	B68 193	B68 015	B68 017			B68 293	B68 294	B68 040	B68 066	B68 249	B68 014	B68 252		
Map reference	614 205	611 204	606 203	233 605	574 018	574 018			674 104	656 113	503 652	494 487	613 203	572 012	614 205		
Altitude (feet)	50	50	50	200	200	200			200	350	250	450	50	200	50		
Cover (per cent)	100	100	100	60	75	90			80	90	50	40	90	50	100		
Plot area (square metres)	4	4	4	4	4	4			4	4	4	4	4	4	4		
Water depth (centimetres)	52	36	30	45	26	23	C	D	90	60	60	65	60	42	90	C	D
Equisetum fluviatile	3	3	.	3	3	3	V	2.5	.	2	4	3	3	3	3	V	2.6
Phragmites communis	10	9	9	9	9	9	V	9.1	.	.	.	.	.	.	.		
Schoenoplectus lacustris	.	.	.	.	.	.			9	8	8	9	9	8	9	V	8.6
Carex rostrata	2	4	4	.	3	.	IV	2.2	.	3	4	3	3	3	.	IV	2.3
Eleocharis palustris	.	.	.	2	.	.	I	0.3	3	.	.	4	.	.	.	II	1.0
Juncus bulbosus	.	.	.	4	.	2	II	1.0	.	.	.	.	4	2	.	II	0.8
Potamogeton natans	.	.	.	3	3	.	III	1.0	.	3	3	.	2	.	4	III	1.7
P. polygonifolius	.	.	.	.	+	3	II	0.7	.	.	.	.	.	.	4	III	0.6
Menyanthes trifoliata	.	4	4	1	.	3	IV	2.0	.	.	3	.	4	3	.	III	1.4
**Nymphaea alba*	.	.	6	.	2	4	III	2.0	.	.	.	.	.	3	.	I	0.4
Potentilla palustris	.	.	.	.	+	3	II	0.7	.	.	.	.	.	3	.	I	0.4
Utricularia minor	.	.	2	.	.	.	I	0.5	.	.	.	.	.	1	.	I	0.1
Total number of species (28)	3	5	6	7	11	10			2	4	5	8	6	10	4		

Mean number of species per relevé = 7.
Total number of species in subassociation = 20.

Mean number of species per relevé = 5.6.
Total number of species in subassociation = 17.

* ssp. *occidentalis* in 5, 6, and 12.

ADDITIONAL SPECIES IN LIST

2. *Potamogeton coloratus* 1.
3. *Eriophorum angustifolium* 3.
4. *Chara* sp. 4.
5. *Juncus articulatus* 3, *Potamogeton gramineus* +, *Sparganium minimum* +.
6. *Carex panicea* 2, *Utricularia intermedia* 1, *Sphagnum subsecundum* var. *inundatum* 2.
10. *Glyceria fluitans* +, *Potamogeton perfoliatus* 3, *Sparganium angustifolium* +, *Myriophyllum alterniflorum* 2.
12. *Galium palustre* 2, *Ranunculus flammula* 2.
13. *Potamogeton lucens* 1.

LOCALITIES

1, 2, 3, 11, 13. Loch Cill Chriosd; 4. Cnoc a'Chatha; 5, 6, 12. Loch Aruisg; 7. Loch nan Dùbhrachan; 8. Loch Meodal, 9. Loch Mealt; 10. Loch Fada.

TABLE 4.14

Class	PHRAGMITETEA
Order	PHRAGMITETALIA EUROSIBIRICA
Alliance	**Magnocaricion elatae**
Association	*Carex rostrata–Menyanthes trifoliata*

	1	2	3	4	5	6	7	8		
Reference number	B68 041	B68 07A	B68 046	B68 020	B68 022	B68 068	B68 247	B68 018		
Map reference	503 652	416 182	502 652	472 304	272 306	494 487	611 204	656 113		
Altitude (feet)	250	275	250	300	300	450	50	350		
Cover (per cent)	70	60	60	60	70	80	100	75		
Plot area (square metres)	4	4	4	4	4	4	4	4		
Water depth (centimetres)	45	45	36	36	36	15	15	15	C	D
Equisetum fluviatile	3	3	4	·	·	4	3	5	IV	2.8
Carex nigra	·	·	1	3	5	·	·	3	III	1.5
C. rostrata	8	8	8	8	7	9	9	9	V	8.3
Eleocharis palustris	3	·	·	3	3	4	·	3	IV	2.0
Eriocaulon septangulare	·	·	·	5	2	·	·	·	II	0.9
Juncus articulatus	·	·	·	+	2	·	·	·	II	0.4
J. bulbosus	·	·	·	3	+	·	·	·	II	0.5
Potamogeton natans	3	·	·	·	4	·	·	·	II	0.9
P. polygonifolius	·	+	·	·	·	·	4	3	II	1.0
Schoenoplectus lacustris	2	·	3	·	·	·	·	3	II	1.0
Lobelia dortmanna	·	·	·	·	3	·	·	3	II	0.8
Menyanthes trifoliata	5	3	5	5	5	3	5	1	V	4.0
**Nymphaea alba*	·	3	·	2	3	·	·	·	II	1.0
Potentilla palustris	3	·	·	·	·	3	·	·	II	0.8
Ranunculus flammula	·	4	·	4	3	·	·	3	III	1.8
Total number of species (19)	7	6	6	11	11	5	5	9		

* ssp. *occidentalis* in 2. Mean number of species per relevé = 7.5.

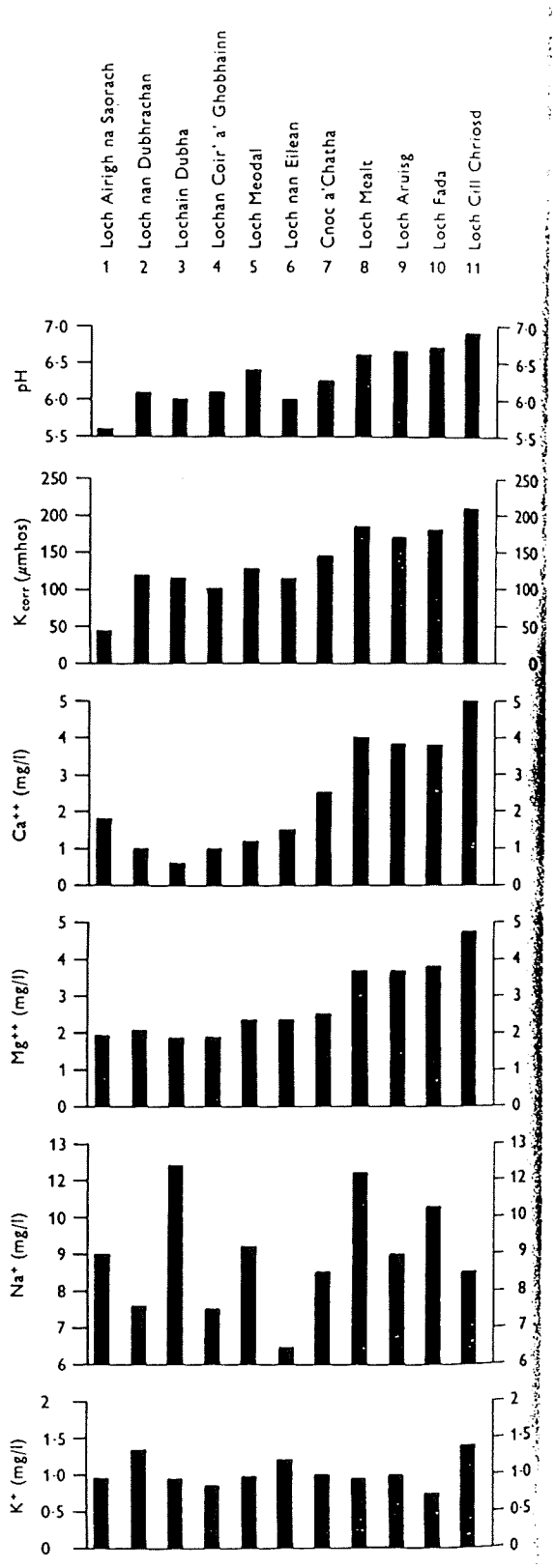
ADDITIONAL SPECIES IN LIST

3. *Potamogeton perfoliatus* 2.
4. *Schoenus nigricans* +, *Scorpidium scorpioides* +.
7. *Phragmites communis* 4.

LOCALITIES

1, 3. Loch Mealt; 2. Loch Coir' a' Ghobhainn; 4, 5. Loch nan Eilean; 6. Loch Fada; 7. Loch Cill Chriosd; 8. Loch Meodal.

	Loch Airigh na Saorach	Loch nan Dubhrachan	Lochain Dubha	Lochan Coir' a' Ghobhainn	Loch Meodal	Loch nan Eilean	Cnoc a'Chatha	Loch Mealt	Loch Aruisg	Loch Fada	Loch Cill Chriosd
	1	2	3	4	5	6	7	8	9	10	11
ROCK TYPE	S	S	S	G	S	G	B	B	SC	B–L	L
Ranunculus flammula	+	+	+	+	+	+	+	+	+	+	+
Juncus articulatus	+	+	+	+	+	+	+	+	+	+	+
Eleocharis palustris	+	+	+	+	+	+	+	+	·	+	+
Equisetum fluviatile	+	+	+	+	+	·	+	+	+	+	+
Juncus bulbosus	+	+	+	·	+	+	+	+	+	·	+
Carex nigra	+	+	+	+	+	+	+	+	·	+	+
Myriophyllum alterniflorum	+	+	·	+	+	·	+	+	+	+	+
Littorella uniflora	+	+	+	+	+	+	·	+	+	+	+
Lobelia dortmanna	+	+	+	+	+	+	+	+	+	·	·
Nymphaea alba	+	+	+	+	·	+	·	·	+	+	+
Baldellia ranunculoides	+	·	+	+	·	·	·	·	·	·	+
Schoenoplectus lacustris	·	+	·	·	+	·	·	+	+	+	+
Eleogiton fluitans	·	+	·	+	+	+	·	·	·	+	·
Sparganium angustifolium	·	+	·	·	·	·	+	+	·	+	·
Carex rostrata	·	·	+	+	+	+	+	+	+	+	+
Potamogeton natans	·	·	+	+	+	+	+	+	+	+	+
Menyanthes trifoliata	·	·	+	+	+	+	+	+	+	+	+
Eriocaulon septangulare	·	·	+	·	·	+	·	·	·	·	·
Potamogeton polygonifolius	·	·	·	+	·	·	+	+	+	·	+
Isoetes lacustris	·	·	·	·	+	+	·	·	+	·	·
Callitriche hermaphroditica	·	·	·	·	+	·	·	·	·	+	·
Sparganium minimum	·	·	·	·	·	+	·	·	+	·	+
Chara spp.	·	·	·	·	·	+	+	·	·	·	+
Potamogeton perfoliatus	·	·	·	·	·	·	+	+	·	+	·
Phragmites communis	·	·	·	·	·	·	+	·	+	·	+
Nitella spp.	·	·	·	·	·	·	·	+	·	·	·
Potamogeton gramineus	·	·	·	·	·	·	·	·	+	+	+
P. berchtoldii	·	·	·	·	·	·	·	·	·	+	·
Glyceria fluitans	·	·	·	·	·	·	·	·	·	+	·
Callitriche stagnalis	·	·	·	·	·	·	·	·	·	+	·
C. intermedia	·	·	·	·	·	·	·	·	·	+	·
Potamogeton coloratus	·	·	·	·	·	·	·	·	·	·	+
P. lucens	·	·	·	·	·	·	·	·	·	·	+
TOTAL NUMBER OF SPECIES (33)	11	13	14	15	16	16	16	17	17	21	21



Key to rock types: S=Sandstone, G=Gabbro, B=Basalt, SC=Schist, L=Limestone.

Figure 7. Present distribution of aquatic vascular plants in eleven freshwater lochs situated in different geological surroundings on Skye, and water chemical data for the same lochs.

Heath vegetation

TABLE 4.42

Class	NARDO-CALLUNETEA									
Order	CALLUNO-ULICETALIA									
Alliance	**Ericion cinereae**									
Association	*Callunetum vulgaris*									
	1	2	3	4	5	6	7	8		
Reference Number	B67	B67	B67	B68	B68	B68	B68	B67		
	081	031	054	054	059	115	179	073		
Map Reference	544	312	446	468	495	390	176	757		
	185	336	257	342	312	417	544	218		
Altitude (feet)	250	250	900	350	150	450	500	1600		
Aspect (degrees)	135	0	270	270	135	135	45	225		
Slope (degrees)	20	5	5	20	25	15	5	20		
Cover (per cent)	100	100	100	100	100	100	100	85		
Plot area (square metres)	4	4	4	4	4	4	4	4	C	D
Erica cinerea	3	.	2	5	6	4	6	7	V	4.1
Calluna vulgaris	8	9	8	9	8	8	8	8	V	8.3
Blechnum spicant	3	.	2	.	4	2	.	.	III	1.4
Agrostis canina	2	.	.	.	.	1	.	.	II	0.4
A. tenuis	3	.	3	3	3	3	3	.	IV	2.3
Deschampsia flexuosa	3	1	2	.	3	4	.	2	IV	1.9
Festuca ovina	.	.	.	.	.	2	2	2	II	0.8
Molinia caerulea	.	.	3	2	3	.	.	.	II	1.0
Carex binervis	.	.	1	3	3	4	5	.	IV	2.0
Trichophorum cespitosum	.	.	.	1	.	3	+	.	II	0.6
Galium saxatile	3	.	.	.	1	.	2	1	III	0.9
Lotus corniculatus	.	.	.	3	3	2	.	.	II	1.0
Polygala serpyllifolia	.	.	+	.	.	3	.	.	II	0.5
Potentilla erecta	3	3	2	2	4	4	4	2	V	3.0
Succisa pratensis	.	.	.	2	.	4	.	.	II	0.8
Viola riviniana	.	2	.	.	2	.	+	.	II	0.6
Breutelia chrysocoma	.	.	2	3	4	1	.	.	III	1.3
Dicranum scoparium	.	3	.	3	3	2	2	4	IV	2.1
****Hypnum cupressiforme***	5	3	4	5	4	5	4	2	V	4.0
Pleurozium schreberi	4	1	3	2	3	.	4	3	V	2.5
Rhacomitrium lanuginosum	.	.	1	3	.	.	.	2	II	0.8
Rhytidiadelphus loreus	.	.	3	1	3	2	.	3	III	1.5
Sphagnum capillaceum	.	.	4	+	.	.	.	.	II	0.6
Thuidium tamariscinum	4	2	.	.	3	.	2	.	III	1.4
Cladonia arbuscula	.	.	2	1	.	.	.	2	II	0.6
C. coccifera	.	.	.	.	.	1	.	2	II	0.4
C. uncialis	.	.	1	.	.	.	.	2	II	0.4
Total number of species (47)	11	11	20	21	19	23	16	17		

Mean number of species per relevé = 17.2.

* var. *ericetorum* in 1, 2, 3, 4, 5, 6, and 7.

ADDITIONAL SPECIES IN LIST

2. *Pteridium aquilinum* 2, *Lophocolea cuspidata* 2.
3. *Thelypteris limbosperma* 2, *Narthecium ossifragum* 2.
4. *Lycopodium selago* 2, *Festuca vivipara* 2, *Dactylorchis maculata* ssp. *ericetorum* +, *Antennaria dioica* 3.
5. *Hypericum pulchrum* 2, *Linum catharticum* +.
6. *Carex panicea* +, *Juncus squarrosus* 2, *Euphrasia micrantha* 1, *Pedicularis sylvatica* 1.
7. *Lycopodium clavatum* 4, *Pseudoscleropodium purum* 3.
8. *Vaccinium myrtillus* 1, *Cladonia crispata* +, *C. pyxidata* 1.

LOCALITIES

1. Slat Bheinn; 2. Fiskavaig; 3. Coire na Creiche; 4. Glen Varragill; 5. Loch Sligachan; 6. Beinn a' Mhadaidh; 7. Dunvegan Head; 8. Sgùrr na Coinnich.

TABLE 4.43

Class	NARDO-CALLUNETEA																
Order	CALLUNO-ULICETALIA																
Alliance	Ericion cinereae																
Association	*Calluna vulgaris–Sieglingia decumbens*											*Calluna vulgaris–Arctostaphylos uva-ursi nodum*					
	1	2	3	4	5	6	7	8	9	10			11	12	13	14	
Reference Number	B67	B68	B68	B68	B68	B68	B68	B68	B68	B68			B68	B68	B68	B68	
	139	182	183	184	185	186	195	196	261	262			312	331	189	188	
Map Reference	416	158	158	158	165	166	234	233	584	584			765	598	179	179	
	493	553	553	553	560	563	605	605	187	187			256	157	561	561	
Altitude (feet)	200	750	800	800	650	550	200	200	75	75			100	300	250	250	
Aspect (degrees)	180	270	180	100	270	270	225	180	270	270			180	180	180	180	
Slope (degrees)	5	25	30	20	5	5	3	5	10	10			30	25	5	5	
Cover (per cent)	100	100	100	100	100	100	100	100	100	100			100	100	100	100	
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	C	D	4	4	4	4	D
Arctostaphylos uva-ursi	.	.	.	.	.	.	.	.	.	.			5	7	6	4	5.5
Empetrum nigrum	.	.	.	1	.	.	2	+	.	.	II	0.4	1	4	.	.	1.3
Erica cinerea	2	5	5	.	4	6	5	6	7	8	V	4.8	5	4	7	4	5.0
Calluna vulgaris	7	8	7	8	8	8	8	7	8	7	V	7.6	8	7	6	5	6.5
Juniperus communis ssp. *nana*	.	.	.	.	.	.	.	.	.	.			.	.	6	8	3.5
Lonicera periclymenum	.	.	.	.	.	.	.	.	.	.			.	.	4	2	1.5
Salix repens	2	.	.	.	.	.	5	3	2	2	III	1.4	.	.	+	.	0.3
Blechnum spicant	.	4	3	3	.	2	+	.	.	.	III	1.3	.	.	1	.	0.3
Pteridium aquilinum	.	.	.	.	.	.	.	.	1	.	I	0.1	.	.	2	2	1.0
Agrostis canina	4	4	3	4	3	4	4	.	3	3	V	3.2	3	3	3	4	3.3
Anthoxanthum odoratum	5	.	4	3	3	4	4	3	2	.	IV	2.8	2	3	4	2	2.3
Deschampsia flexuosa	2	1	2	.	2	.	.	.	.	.	II	0.7	3	2	.	3	2.0
Festuca ovina	3	4	4	3	4	3	3	3	4	4	V	3.5	1	3	3	.	1.8
F. rubra	.	3	3	2	.	1	.	.	.	.	II	0.9	.	.	.	.	
F. vivipara	3	1	3	1	.	3	4	4	3	3	V	2.5	2	1	2	.	1.3
Holcus lanatus	.	3	2	2	.	.	.	.	.	.	II	0.7	.	.	3	.	0.8
Molinia caerulea	.	.	.	.	.	.	4	1	.	3	II	0.8	2	.	.	.	0.5
Sieglingia decumbens	2	4	4	4	4	3	2	3	4	3	V	3.3	3	4	3	.	2.5
Carex binervis	3	.	.	.	4	5	2	2	.	1	III	1.7	5	.	.	.	1.3
C. panicea	.	2	.	.	.	.	.	2	.	.	I	0.4	.	.	.	.	
C. pulicaris	.	3	3	3	3	3	3	3	2	3	V	2.6	2	.	.	.	0.5
†*Dactylorchis maculata*	2	.	.	.	.	.	1	1	.	.	II	0.4	.	.	.	.	
Luzula campestris	2	2	1	2	.	1	.	.	.	.	III	0.8	.	.	.	.	
Trichophorum cespitosum	2	.	.	.	.	.	1	.	.	.	I	0.3	2	.	.	.	0.5
Achillea millefolium	.	.	.	.	.	1	.	1	.	.	I	0.2	.	.	.	.	
Alchemilla xanthochlora	.	2	2	.	.	.	.	.	.	.	I	0.4	.	.	.	.	
Antennaria dioica	+	.	1	.	.	.	.	3	.	1	II	0.6	2	3	.	.	1.3
Anthyllis vulneraria	2	.	.	2	.	.	.	.	.	.	I	0.4	.	.	.	.	
Bellis perennis	.	.	.	.	.	.	2	.	.	.	I	0.2	.	.	.	.	
Carlina vulgaris	.	.	.	.	.	.	.	.	.	.			.	+	2	.	0.8
Cerastium holosteoides	.	.	2	1	.	.	.	.	.	.	I	0.3	.	.	.	.	
Euphrasia micrantha	.	3	2	2	1	2	3	2	2	.	IV	1.7	.	1	.	.	0.3
Galium saxatile	.	.	+	2	3	2	.	.	.	.	II	0.8	.	.	.	3	0.8
Hypericum pulchrum	3	2	3	2	2	.	.	.	.	3	III	1.5	.	2	.	.	0.5
Lathyrus montanus	3	3	2	1	.	.	.	.	.	1	III	1.0	.	2	2	.	1.0
Leontodon autumnalis	.	.	.	+	+	.	1	.	.	.	II	0.3	.	.	.	.	
Linum catharticum	.	2	3	2	.	.	.	.	.	1	II	0.8	.	.	3	.	0.8
Lotus corniculatus	5	+	4	3	3	3	2	2	2	2	V	2.7	.	1	2	.	0.8
Lysimachia nemorum	.	1	1	.	.	.	.	.	.	.	I	0.2	.	.	.	.	
Pinguicula vulgaris	.	.	+	1	.	.	1	.	.	.	II	0.3	.	.	.	.	
Plantago lanceolata	.	.	3	1	+	.	2	2	2	4	IV	1.5	.	.	1	.	0.3
P. maritima	1	.	.	.	.	.	.	1	.	1	II	0.3	.	.	.	.	
Polygala serpyllifolia	1	.	.	1	1	.	.	.	1	1	III	0.5	.	.	.	.	
Potentilla erecta	4	4	3	4	5	4	2	4	4	.	V	3.4	1	.	1	3	1.3
Primula vulgaris	.	2	1	3	.	.	.	.	.	.	II	0.6	.	.	2	2	1.0
Prunella vulgaris	.	1	2	3	3	2	+	.	1	.	IV	1.3	.	.	2	.	0.5
Ranunculus acris	.	.	1	1	.	.	.	.	.	.	I	0.2	.	.	.	.	
Rhinanthus minor agg.	.	.	.	.	.	.	+	2	.	.	I	0.3	.	.	.	.	
Rumex acetosa	.	1	+	.	.	.	.	.	.	.	I	0.2	.	.	.	.	
Solidago virgaurea	.	2	+	.	.	.	.	.	.	.	I	0.3	.	2	2	.	1.0
Succisa pratensis	.	.	2	.	1	.	4	4	1	2	III	1.3	.	1	2	.	0.8
Taraxacum officinale agg.	1	.	.	+	.	.	.	.	.	.	I	0.2	.	.	1	.	0.3
Teucrium scorodonia	.	.	.	.	.	.	.	.	.	.			2	4	4	3	3.3
Thymus drucei	3	.	4	2	.	.	2	3	.	1	III	1.5	.	4	3	.	1.8
Trifolium repens	.	3	1	2	.	.	.	.	.	.	II	0.6	.	.	.	3	0.8
Viola riviniana	.	2	3	.	2	3	.	.	3	2	III	1.5	.	2	3	1	1.5
Breutelia chrysocoma	.	3	4	3	.	.	3	3	.	.	III	1.6	.	.	.	.	
Dicranum scoparium	2	3	3	.	1	1	.	1	.	.	III	1.1	.	1	.	2	0.8
Hylocomium splendens	2	4	.	2	2	2	2	3	5	5	V	2.7	.	.	.	.	
‡*Hypnum cupressiforme*	.	.	.	4	2	1	3	2	.	.	III	1.2	3	.	.	.	0.8
Mnium hornum	.	.	1	.	1	.	.	.	.	.	I	0.2	.	.	.	.	
Pleurozium schreberi	3	3	2	3	3	1	3	2	.	3	V	2.3	.	1	.	.	0.3
Pseudoscleropodium purum	.	.	.	.	1	.	3	4	.	.	II	0.8	.	.	.	2	0.5
Rhacomitrium lanuginosum	4	.	.	.	.	.	.	+	.	.	I	0.5	1	.	.	.	0.3
Rhytidiadelphus loreus	.	.	.	.	.	.	3	1	3	2	II	0.9	.	.	.	.	
R. triquetrus	.	4	4	5	.	.	.	.	2	.	II	1.5	.	.	.	1	0.3
Thuidium tamariscinum	.	2	.	1	2	.	.	2	.	.	II	0.7	.	1	.	1	0.5
Frullania fragilifolia	.	.	.	.	.	.	.	.	.	.			.	2	1	.	0.8
F. tamarisci	.	2	2	1	.	.	2	.	.	.	II	0.7	.	.	.	1	0.3
Total number of species (106)	32	39	43	43	29	23	38	37	22	26			21	22	33	20	

Mean number of species per relevé = 33.2.
Total number of species in association = 94.

Mean number of species per relevé = 24.0.
Total number of species in *nodum* = 52.

* ssp. *argentea* in 1, 7, 8, 9, and 10. † ssp. *ericetorum* in 1, 7, and 8. ‡ var. *ericetorum* in 5, 6, 7, 8, and 11. var. *tectorum* in 4.

ADDITIONAL SPECIES IN LIST

1. *Luzula multiflora* 1, *L. pilosa* 2, *Pyrola media* 3, *Pelligera aphthosa* 1.
2. *Angelica sylvestris* +, *Filipendula ulmaria* 1, *Senecio vulgaris* 1, *Silene acaulis* 2, *Veronica officinalis* 2.
3. *Dryopteris filix-mas* 1, *Geum rivale* 1.
4. *Rubus saxatilis* 4, *Fragaria vesca* 2, *Galium boreale* 1, *Vicia sepium* 1, *Hylocomium brevirostre* 2.
5. *Carex demissa* 2, *Sagina procumbens* 1.
7. *Ulex europaeus* 2, *Vaccinium myrtillus* +, *Nardus stricta* 2, *Leucobryum glaucum* 3, *Scapania gracilis* 1.
8. *Juncus squarrosus* +, *Narthecium ossifragum* +, *Galium verum* +, *Gentianella campestris* 2, *Pedicularis sylvatica* 1.
10. *Carex flacca* 2, *Rhytidiadelphus squarrosus* 1.
11. *Campylopus flexuosus* 3, *Cornicularia aculeata* 1.
13. *Salix aurita* 2, *Agrostis stolonifera* 2, *Trichostomum crispulum* 3.

LOCALITIES

1. The Tote; 2, 3, 4, 5, 6, 13, 14. Dunvegan Head; 7, 8. Cnoc a' Chatha; 9, 10. Camas Malag; 11. Kyleakin; 12. Carn Dearg.

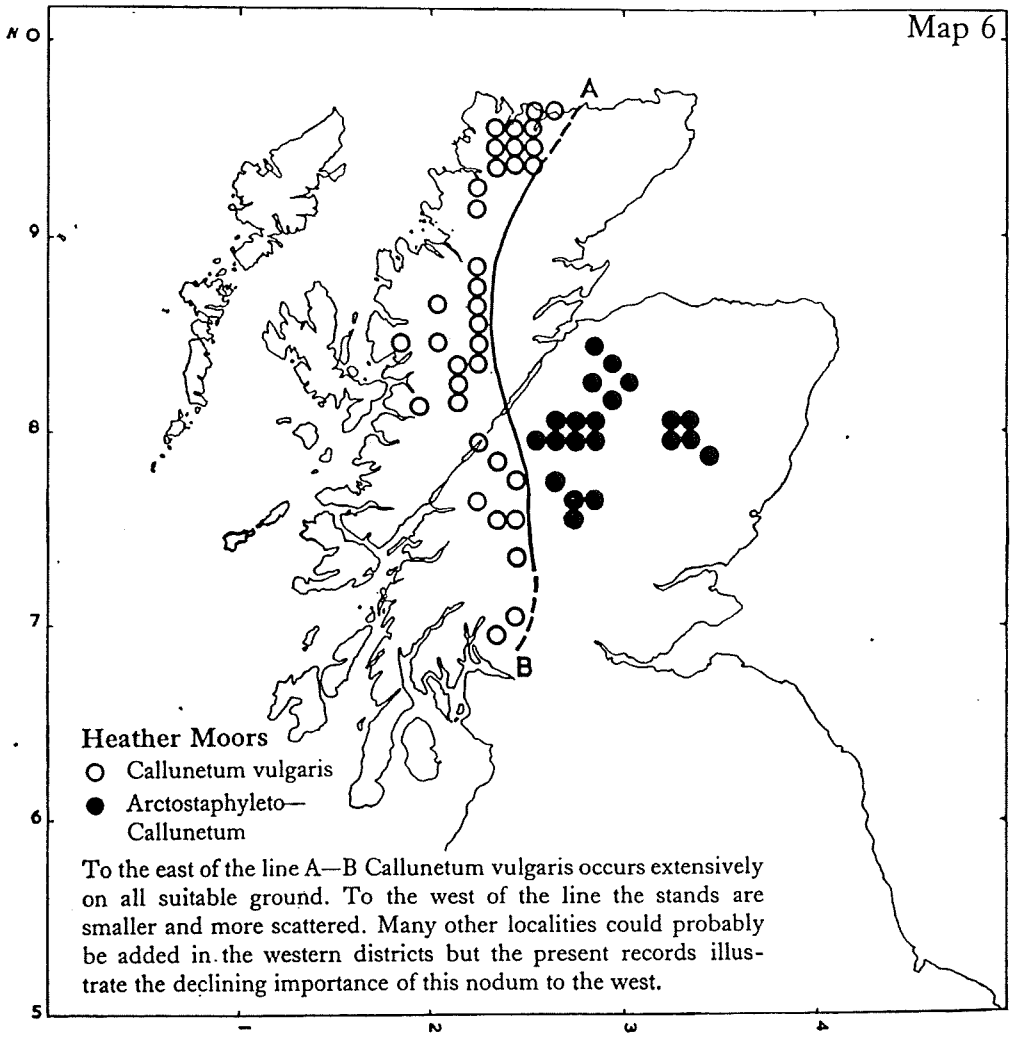

Map 6
A
B
Heather Moors
Callunetum vulgaris
Arctostaphyleto—
Callunetum
To the east of the line A—B Callunetum vulgaris occurs extensively on all suitable ground. To the west of the line the stands are smaller and more scattered. Many other localities could probably be added in the western districts but the present records illustrate the declining importance of this nodum to the west.

TABLE 4.44

Class	NARDO-CALLUNETEA							
Order	CALLUNO-ULICETALIA							
Alliance	**Myrtillion Boreale**							
Association	*Vaccineto-Callunetum hepaticosum*							
	1	2	3	4	5	6		
Reference Number	B68 005	B68 006	B68 233	B67 013	B68 120	B68 121		
Map Reference	413 762	414 761	553 215	552 214	494 531	494 531		
Altitude (feet)	150	150	450	500	1100	1100		
Aspect (degrees)	45	45	45	0	0	0		
Slope (degrees)	30	30	45	45	40	40		
Cover (per cent)	90	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	C	D
Erica cinerea	2	2	.	.	4	3	IV	1.8
Calluna vulgaris	8	8	8	8	8	8	V	8.0
Lonicera periclymenum	1	+	–	–	–	–	II	0.3
Vaccinium myrtillus	.	3	4	3	4	4	V	3.0
Blechnum spicant	3	2	4	3	4	4	V	3.3
Dryopteris filix-mas	1	2	.	.	.	3	III	1.0
Hymenophyllum wilsonii	+	1	3	+	.	1	V	1.2
Thelypteris limbosperma	.	.	.	2	2	.	II	0.7
Agrostis tenuis	.	.	3	1	.	.	II	0.7
Deschampsia flexuosa	1	3	.	.	2	3	IV	1.5
Festuca vivipara	.	.	2	2	+	.	III	0.8
Molinia caerulea	.	.	3	4	.	.	II	1.2
Carex binervis	1	2	.	.	1	2	IV	1.0
**Dactylorchis maculata*	.	1	.	.	1	.	II	0.3
Luzula sylvatica	2	2	.	.	.	.	II	0.7
Trichophorum cespitosum	.	3	.	.	1	1	III	0.8
Euphrasia micrantha	+	.	1	.	.	.	II	0.3
Galium saxatile	.	.	.	2	3	2	III	1.2
Hypericum pulchrum	2	3	3	.	.	.	III	1.3
Pinguicula vulgaris	1	2	.	.	.	.	II	0.5
Potentilla erecta	3	3	4	2	3	3	V	3.0
Succisa pratensis	.	1	2	.	2	.	III	0.8
Viola riviniana	.	1	.	.	.	2	I	0.5
Breutelia chrysocoma	2	4	4	.	4	.	IV	2.3
Campylopus atrovirens	1	1	1	3	1	.	V	1.2
C. flexuosus	1	1	.	.	.	.	II	0.3
C. setifolius	.	.	2	.	1	.	II	0.5
Dicranum scoparium	2	.	.	3	1	.	III	1.0
D. majus	.	.	1	2	.	.	II	0.5
Dicranodontium uncinatum	.	.	2	.	.	+	II	0.5
Hookeria lucens	.	.	.	1	.	2	II	0.5
Hylocomium splendens	4	1	2	3	.	.	IV	1.7
H. umbratum	.	.	1	+	.	.	II	0.3
†Hypnum cupressiforme	1	1	1	2	2	3	V	1.7
Isothecium myosuroides	.	2	1	2	.	3	IV	1.3
Mnium hornum	1	.	.	.	1	.	II	0.3
Plagiothecium undulatum	3	2	1	.	1	.	IV	1.2
Pleurozium schreberi	2	.	1	.	3	.	III	1.0
Ptilium crista-castrensis	.	.	1	2	.	.	II	0.5
Rhacomitrium lanuginosum	1	2	5	4	7	7	V	4.3
Rhytidiadelphus loreus	2	1	3	3	3	4	V	2.7
Sphagnum capillaceum	3	2	2	3	4	2	V	2.7
S. plumulosum	2	3	.	5	.	2	IV	2.0
S. quinquefarium	3	.	2	.	2	3	IV	1.7
‡S. subsecundum	1	2	.	.	.	.	II	0.5
S. tenellum	2	4	1	2	.	.	IV	1.5
Thuidium delicatulum	.	.	.	.	2	3	II	0.8
T. tamariscinum	3	.	.	2	.	.	II	0.8
Trichostomum tenuirostre	.	.	1	.	.	2	II	0.5
Anastrepta orcadensis	+	.	2	2	1	1	V	1.2
Bazzania tricrenata	.	2	3	4	1	3	V	2.2
Calypogeia muellerana	.	1	.	.	1	.	II	0.3
Cephalozia bicuspidata	+	1	.	.	1	.	III	0.5
Diplophyllum albicans	4	5	3	2	2	4	V	3.3
Frullania tamarisci	.	.	.	2	1	.	II	0.5
Herberta adunca	5	3	4	6	4	3	V	4.2
Lejeunea patens	1	.	.	.	+	.	II	0.3
Lepidozia reptans	3	.	.	+	.	.	II	0.7
L. trichoclados	2	1	.	.	.	.	II	0.5
Mastigophora woodii	.	.	4	6	.	1	III	1.8
Mylia taylori	3	2	2	4	3	.	V	2.3
Pellia epiphylla	+	.	.	.	.	1	II	0.3
Plagiochila spinulosa	3	3	3	4	3	3	V	3.2
Pleurozia purpurea	.	.	2	3	3	3	IV	1.8
Saccogyna viticulosa	2	3	.	.	.	.	II	0.8
Scapania gracilis	3	3	4	3	3	3	V	3.2
S. ornithopodioides	.	.	+	1	.	.	II	0.3
Total number of species (86)	46	45	40	42	40	36		

Mean number of species per relevé = 41.5.

* ssp. *ericetorum* in 2 and 5. † var. *ericetorum* in 1, 2, 3, 4, 5, and 6. ‡ var. *auriculatum* in 1 and 2.

ADDITIONAL SPECIES IN LIST

1. *Juniperus communis* ssp. *nana* +, *Pteridium aquilinum* 2, *Sphagnum robustum* 1, *Riccardia sinuata* 1.
2. *Sedum rosea* +, *Myurium hebridarum* 3, *Colura calyptrifolia* +, *Frullania germana* +, *Harpalejeunea ovata* 1.
3. *Cladonia uncialis* 2.
4. *Carex pulicaris* 2, *Hyocomium flagellare* +, *Barbilophozia barbata* +, *Herberta straminea* 3, *Lepidozia setacea* 1.
5. *Dryopteris borreri* 3, *Sphagnum fimbriatum* +.
6. *Rubus saxatilis* 1, *Carex pilulifera* 2, *Oxalis acetosella* 2, *Marsupella emarginata* 1.

LOCALITIES

1, 2. Meall Tuath; 3, 4. Blà Bheinn; 5, 6. Carn Liath.

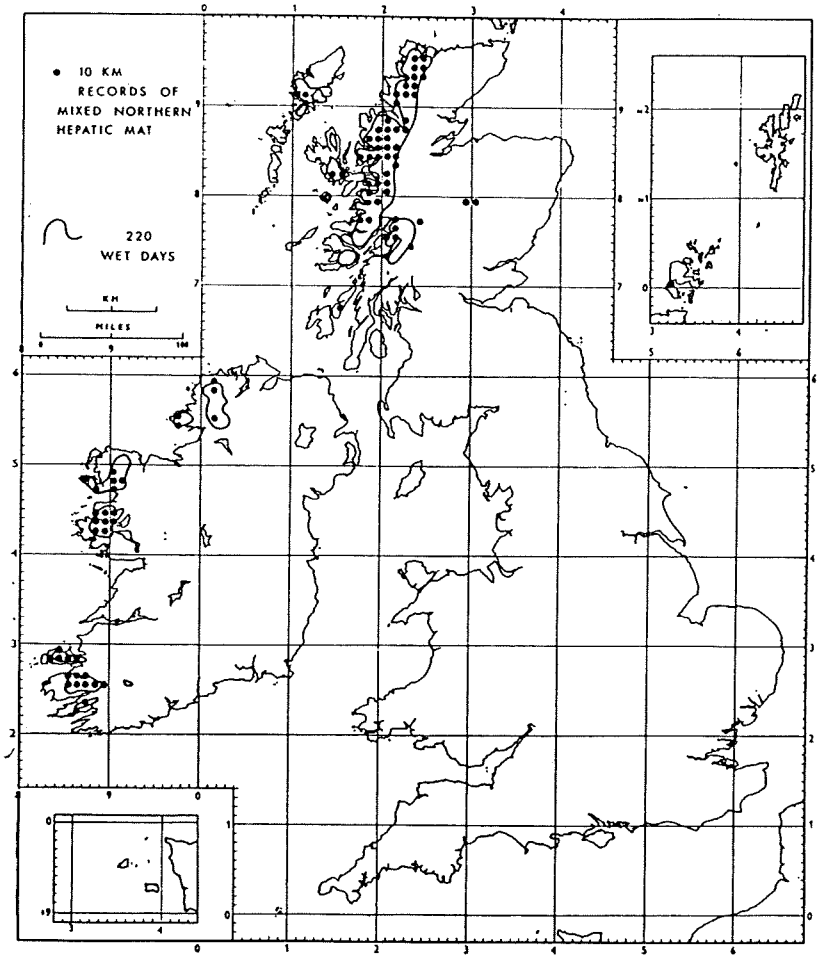


Fig. 4. The distribution of mixed Northern Atlantic hepatic mat in relation to index of limiting humidity.

This community is described on p. 379 and consists of not less than six out of twelve species of montane leafy liverworts growing in a mixed carpet, usually in association with dwarf shrub heath, or on block screes and cliff ledges. The individual species mostly have a wider distribution, and records on the map are confined to places where the various species together achieve dominance in the bryophyte layer of communities with a minimal area of 1 m^2. Occurrences in the Cairngorms are in areas of prolonged snow cover, but that for Hoy, Orkney, suggests that the maritime hills here have a higher local humidity than that indicated by meteorological data for the adjacent sea level areas. Discontinuity or absence within areas of suitable rainfall are due either to destruction of original habitat by grazing and burning or to under-recording. Temperature data are not shown as some species appear to have different limiting temperatures.

TABLE 4.40‡

Class: NARDO-CALLUNETEA
Order: NARDETALIA
Alliance: Nardo-Galion saxatilis

Association	*Agrosto-Festucetum* (species-poor)										*Alchemilleto-Agrosto-Festucetum*								*Agrosto-Festucetum* (species-rich)								*Dwarf herb nodum*		
	1	2	3	4	5	6	7	8			9	10	11	12	13	14			15	16	17	18	19	20			21	22	
Reference Number	B67 087	B67 049	B67 047	B67 121	B67 033	B67 082	B68 162	B67 063			B67 116	B67 015	B68 031	B68 032	B68 086	B67 020			B67 114	B67 046	B68 089	B67 025	B67 117	B68 030			B67 017	B67 132	
Map Reference	513 190	424 256	625 212	433 617	355 300	533 193	222 446	756 212			517 406	542 217	406 536	499 540	485 550	536 212			516 137	613 202	517 604	560 202	517 406	496 536			542 217	456 618	
Altitude (feet)	30	200	500	750	750	750	1200	1300			800	1200	1400	1600	1450	1800			100	150	250	500	800	1300			1000	1750	
Aspect (degrees)	180	90	270	270	0	180	0	180			90	315	135	315	90	0			90	315	135	90	90	135			315	90	
Slope (degrees)	5	10	12	5	5	15	8	5			25	10	30	25	25	20			3	5	5	10	30	40			25	30	
Cover (per cent)	100	100	100	100	100	100	100	100			100	100	90	100	85	100			100	100	100	100	100	100			100	100	
Plot area (square metres)	4	4	4	4	4	4	4	4	C	D	4	4	4	4	4	4	C	D	4	4	4	4	4	4	C	D	4	4	D
Calluna vulgaris	·	3	3	·	3	3	1	·	IV	1.6	2	·	·	·	·	·	I	0.3	2	1	·	·	2	·	III	0.8	·	·	
Erica cinerea	·	·	·	·	·	·	·	·			·	·	·	·	·	·			·	·	+	·	·	+	II	0.3	·	·	
Vaccinium myrtillus	·	·	·	·	·	·	2	2	II	0.5	·	·	·	1	+	2	III	0.7	·	·	·	1	·	·	I	0.2	1	2	1.5
Blechnum spicant	·	·	·	·	·	·	2	·	I	0.3	·	·	·	·	·	5	I	0.8	·	·	·	·	3	1	II	0.7	·	·	
Pteridium aquilinum	·	·	1	·	1	·	·	·	II	0.3	·	·	·	·	·	·			·	1	·	·	·	·	I	0.2	·	·	
Selaginella selaginoides	·	·	·	·	·	·	·	·			3	1	·	3	2	·	IV	1.5	·	1	·	·	2	+	III	0.7	3	2	2.5
Agrostis canina	4	3	3	3	3	4	3	3	V	3.3	·	·	·	·	3	·	I	0.5	·	·	4	·	·	·	I	0.7	·	·	
A. tenuis	6	5	5	6	6	6	6	4	V	5.5	4	6	3	6	5	4	V	4.7	6	4	6	3	5	6	V	5.0	·	·	
Anthoxanthum odoratum	3	4	3	3	2	4	3	4	V	3.3	·	5	·	·	5	5	III	2.5	4	2	·	5	3	6	V	3.3	4	1	2.5
Cynosurus cristatus	·	·	·	·	·	·	·	·			·	·	·	·	·	·			3	·	4	1	·	·	III	1.3	·	·	
Deschampsia flexuosa	·	2	·	·	·	·	·	3	II	0.6	·	·	5	·	·	2	II	1.2	·	·	·	·	·	·			·	·	
Festuca ovina	4	2	3	7	5	4	6	5	V	4.5	5	4	3	5	7	2	V	4.3	6	6	7	5	6	7	V	6.2	4	3	3.5
F. rubra	2	·	·	·	·	·	·	2	II	0.5	·	·	·	·	·	·			·	·	5	2	4	4	IV	1.8	·	·	
F. vivipara	3	3	3	6	·	4	3	3	V	3.1	4	2	·	·	5	5	IV	2.7	4	2	4	·	4	·	IV	2.3	2	5	3.5
Holcus lanatus	2	·	·	·	·	·	·	·	I	0.3	2	2	·	·	·	·	II	0.7	·	·	·	·	3	·	I	0.5	·	·	
Nardus stricta	·	·	·	·	·	·	4	·	I	0.5	·	·	·	·	·	·			·	·	·	1	·	·	I	0.2	·	·	
Poa pratensis	·	·	·	·	·	·	·	·			·	·	3	·	·	·	I	0.5	·	2	·	·	·	3	II	0.8	·	·	
Carex binervis	·	·	·	·	3	2	·	·	II	0.6	·	·	·	·	·	·			1	3	·	2	·	3	IV	1.5	·	·	
C. flacca	·	·	·	·	·	·	2	·	I	0.3	·	1	·	·	·	·	I	0.2	·	2	·	·	·	·	I	0.3	3	·	1.5
C. ovalis	·	·	·	·	·	·	·	2	I	0.3	·	·	·	·	·	·			1	·	·	·	·	·	I	0.2	·	·	
C. panicea	·	·	1	·	·	·	·	·	I	0.1	·	·	·	·	·	·			·	·	·	·	·	·			·	·	
C. pilulifera	·	·	·	2	·	·	·	2	II	0.5	·	·	·	·	·	·			·	·	·	·	·	·			·	·	
C. pulicaris	·	·	1	·	·	·	3	·	II	0.5	3	2	·	·	·	·	II	0.8	3	2	2	3	3	·	V	2.2	2	·	1.0
Luzula campestris	2	·	·	·	·	·	·	2	II	0.5	·	2	·	2	2	·	III	1.0	·	·	1	·	·	·	I	0.2	1	·	0.5
L. multiflora	·	·	·	·	·	·	·	·			4	·	·	·	·	·	I	0.7	·	·	·	·	3	·	I	0.5	·	·	
L. sylvatica	·	·	·	·	·	·	·	·			·	·	·	1	3	·	II	0.7	·	·	·	2	·	·	I	0.3	·	·	
Achillea millefolium	·	·	1	·	·	·	·	·	I	0.1	2	·	·	3	·	2	II	1.2	·	·	·	·	·	·			·	·	
Alchemilla alpina	·	·	·	·	·	·	·	·			6	5	7	7	5	3	V	5.5	·	·	·	·	·	+	I	0.2	3	5	4.0
A. vestita	·	·	·	·	·	·	·	·			·	3	3	4	1	·	IV	1.8	·	·	·	·	·	·			2	·	1.0
A. xanthochlora	·	·	·	·	·	·	·	·			4	·	4	5	·	·	III	2.2	·	2	·	·	3	+	III	1.0	·	1	0.5
Angelica sylvestris	·	·	·	·	·	·	·	·			·	3	·	·	·	·	I	0.5	·	·	·	·	·	·			2	·	1.0
Antennaria dioica	·	·	·	·	·	1	·	·	I	0.1	·	·	·	·	·	·			·	2	·	+	·	·	II	0.5	·	·	
Bellis perennis	·	·	·	·	1	·	·	·	I	0.1	·	3	·	·	+	·	II	0.7	2	2	2	1	·	·	IV	1.2	3	·	1.5
Cerastium holosteoides	·	·	·	·	·	·	·	·			·	·	·	·	+	·	I		·	·	+	1	2	2	IV	1.0	·	·	
**Euphrasia officinalis* agg.	·	·	·	3	·	·	·	·	I	0.4	·	1	3	3	2	·	IV	1.5	2	·	3	·	1	4	IV	1.7	·	2	1.0
Filipendula ulmaria	·	·	·	·	·	·	·	·			1	3	·	·	·	·	II	0.7	·	1	·	·	2	·	II	0.5	1	·	0.5
Fragaria vesca	·	·	·	·	·	·	·	·			1	·	·	·	·	·	I	0.2	·	1	·	·	·	·	I	0.2	·	·	
Galium saxatile	2	2	1	4	3	3	4	4	V	2.9	·	·	3	4	3	5	IV	2.5	·	·	·	4	1	·	II	0.8	·	3	1.5
Hieracium pilosella	·	·	·	·	·	·	·	·			2	1	·	·	·	·	II	0.5	1	·	3	1	·	·	III	0.8	1	·	0.5
Hypericum pulchrum	·	·	·	·	·	·	·	·			2	·	·	·	·	·	I	0.3	·	·	1	·	1	+	II	0.5	·	1	0.5
Linum catharticum	·	·	·	·	·	·	·	·			·	·	·	·	·	·			3	1	4	·	3	·	IV	1.8	·	·	
Lotus corniculatus	·	·	2	·	·	·	·	·	I	0.3	4	·	·	·	·	·	I	0.7	4	3	4	·	6	5	V	3.7	·	·	
Oxalis acetosella	·	·	·	·	·	·	·	·			1	+	·	+	1	+	V	0.8	·	·	·	2	·	·	I	0.3	+	·	0.5
Parnassia palustris	·	·	·	·	·	·	·	·			·	·	+	3	·	·	II	0.7	·	1	·	·	1	·	II	0.3	2	·	1.0
Pedicularis sylvatica	·	2	·	·	·	3	·	·	II	0.6	·	·	·	·	·	·			·	·	·	·	·	·			·	·	
Pinguicula vulgaris	[illegible]	·	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	I	[illegible]	·	·	·	·	·	·			·	·	·	·	·	·	I	0.2	1	·	0.5
Polygala serpyllifolia	·	·	1	·	1	2	·	·	II	0.5	·	·	·	·	·	·			4	1	2	·	·	·	III	1.2	·	·	
Polygonum viviparum	·	·	·	·	·	·	·	·			·	·	·	·	·	·			·	2	·	·	·	·	I	0.3	2	+	1.5
Plantago lanceolata	·	1	2	·	1	·	·	·	II	0.5	1	1	·	·	·	·	II	0.3	3	2	3	·	2	·	IV	1.7	·	·	
P. maritima	·	·	·	·	·	·	·	·			·	·	·	·	·	·			·	·	2	·	2	·	II	0.7	·	·	
Potentilla erecta	1	2	2	5	3	2	4	2	V	2.6	3	·	·	3	·	3	III	1.5	4	3	3	2	3	3	V	3.0	3	3	3.0
Primula vulgaris	·	·	·	·	·	·	·	·			3	·	·	·	·	·	I	0.5	·	·	1	·	4	·	II	0.8	·	·	
Prunella vulgaris	·	·	·	·	·	·	1	·	I	0.1	3	·	3	4	3	·	IV	2.2	2	1	3	3	3	3	V	2.5	·	·	
Ranunculus acris	1	·	·	·	·	·	·	·	I	0.1	·	3	+	3	6	·	IV	2.2	·	2	·	2	3	3	IV	1.7	2	·	1.0
Rumex acetosa	·	·	2	·	·	·	·	·	I	0.3	2	2	+	3	+	·	V	1.5	·	3	·	·	3	3	III	1.5	2	·	1.0
Saxifraga aizoides	·	·	·	·	·	·	·	·			·	3	·	·	·	·	I	0.5	·	·	·	1	·	·	I	0.2	·	·	
Sedum rosea	·	·	·	·	·	·	·	·			·	+	·	·	·	·	I	0.2	·	·	·	+	·	·	I	0.2	1	·	0.5
Sibbaldia procumbens	·	·	·	·	·	·	·	·			·	·	·	·	·	·			·	·	·	·	·	·			3	4	3.5
Silene acaulis	·	·	·	·	·	·	·	·			·	·	·	·	·	·			·	·	·	·	·	·			6	4	5.0
S. maritima	·	·	·	·	·	·	·	·			·	·	·	·	·	·			·	·	2	·	1	·	II	0.5	·	·	
Succisa pratensis	·	·	·	·	·	·	·	·			1	·	·	·	·	·	I	0.2	·	·	·	·	3	·	I	0.5	1	·	0.5
Thymus drucei	·	·	2	·	·	·	2	·	II	0.5	4	4	3	4	4	·	V	3.2	3	2	3	3	5	4	V	3.3	2	4	3.0
Trifolium repens	3	·	·	2	·	·	·	·	II	0.6	1	·	·	·	·	·	I	0.2	·	·	2	·	2	·	II	0.7	·	·	
Veronica serpyllifolia	1	·	·	·	·	·	·	·	I	0.1	3	·	1	1	3	·	IV	1.3	·	·	·	·	·	+	I	0.2	·	·	
Viola riviniana	·	·	·	3	·	·	2	2	II	0.9	2	3	·	3	+	+	V	1.7	·	2	2	2	3	3	V	2.0	2	3	2.5
Breutelia chrysocoma	·	3	·	2	·	·	·	·	II	0.6	·	4	·	3	5	5	IV	2.8	4	·	·	2	3	1	IV	1.7	+	·	0.5
Ctenidium molluscum	·	·	·	·	·	·	·	·			·	6	·	·	·	·	I	1.0	2	3	3	3	2	·	V	2.2	5	·	2.5
Dicranum scoparium	·	·	2	3	2	2	1	2	IV	1.5	2	·	·	·	·	·	I	0.3	·	·	·	1	·	·	I	0.2	·	·	
Ditrichum flexicale	·	·	·	·	·	·	·	·			·	5	·	·	·	·	I	0.8	·	·	3	·	·	·	I	0.5	3	·	1.5
Hylocomium splendens	3	3	3	6	3	·	4	3	V	3.1	5	·	4	4	4	6	V	3.8	5	3	1	2	4	4	V	3.2	2	·	1.0
†*Hypnum cupressiforme*	·	1	·	4	2	2	·	3	IV	1.5	·	·	·	3	·	·	I	0.5	2	4	4	2	·	1	V	2.2	·	·	
Mnium hornum	·	·	·	·	·	·	·	·			·	·	·	+	·	·	I	0.2	·	·	·	1	·	·	I	0.2	·	·	
Pleurozium schreberi	·	4	3	3	1	3	·	3	IV	2.1	·	·	·	·	·	·			·	·	·	2	·	·	I	0.3	·	·	
Polytrichum alpinum	·	·	·	·	·	·	·	·			·	·	·	·	3	5	II	1.3	·	·	·	·	·	·			2	3	2.5
P. formosum	·	·	·	·	3	·	3	·	II	0.8	·	·	2	·	·	·	I	0.3	·	·	·	·	1	2	II	0.5	·	·	
P. piliferum	·	·	·	·	·	·	·	2	I	0.3	·	·	·	·	·	·			·	·	·	·	·	·			·	3	1.5
Pseudoscleropodium purum	·	·	·	1	·	·	·	·	I	0.1	4	·	·	·	·	·	I	0.7	2	3	3	·	4	1	V	2.2	·	1	0.5
Rhacomitrium lanuginosum	·	·	+	1	·	·	1	3	III	0.8	2	·	5	·	4	5	IV	2.7	1	3	·	·	5	2	IV	1.8	3	4	3.5
Rhytidiadelphus loreus	·	·	·	3	·	·	3	3	II	1.1	·	·	5	4	4	8	IV	3.5	·	3	·	·	·	2	II	0.8	·	·	
R. squarrosus	2	·	2	·	·	·	3	3	III	1.3	3	·	4	1	2	·	IV	1.7	·	·	·	2	2	5	III	1.5	·	·	
R. triquetrus	·	·	·	·	·	·	·	·			5	·	·	+	·	·	II	1.0	·	·	4	·	3	·	II	1.2	·	·	
Thuidium tamariscinum	·	·	·	3	1	·	1	·	II	0.6	+	·	·	4	1	4	IV	1.7	·	2	·	·	4	2	III	1.3	·	·	
Anastrepta orcadensis	·	·	·	·	·	·	·	·			·	·	·	1	·	3	II	0.7	·	·	·	·	·	·			·	·	
Diplophyllum albicans	·	·	·	·	·	·	·	·			·	·	·	1	1	3	III	0.8	·	·	·	·	·	·			·	1	0.5
Frullania tamarisci	·	·	·	·	·	·	·	·			2	·	·	2	2	·	III	1.0	2	·	2	·	3	2	IV	1.5	1	·	0.5
Ptilidium ciliare	·	·	·	·	·	·	·	·			·	·	·	2	·	·	I	0.3	·	·	·	·	·	2	I	0.3	·	2	1.0
Riccardia pinguis	·	·	·	·	·	·	·	·			·	·	·	·	·	·			1	·	·	·	·	·	I	0.2	·	·	
Cladonia arbuscula	·	·	·	·	·	·	·	·			·	·	·	·	·	·			·	·	1	1	·	1	III	0.5	·	·	
C. uncialis	·	·	·	·	·	·	·	1	I	0.1	·	·	·	·	·	·			·	·	·	·	·	·			·	1	0.5
Peltigera canina	1	·	·	·	·	·	·	·	I	0.1	·	·	1	1	·	·	II	0.3	·	·	·	·	·	1	I	0.2	·	·	
Total number of species (140)	15	19	22	22	18	15	25	24			36	30	22	42	38	26			27	37	37	33	45	36			39	28	

Agrosto-Festucetum (species-poor): Mean number of species per relevé = 20. Total number of species in association = 59.

Alchemilleto-Agrosto-Festucetum: Mean number of species per relevé = 32.3. Total number of species in association = 87.

Agrosto-Festucetum (species-rich): Mean number of species per relevé = 35.8. Total number of species in association = 89.

Dwarf herb nodum: Mean number of species per relevé = 33.5. Total number of species in *nodum* = 53.

* Including *E. confusa*, *E. brevipila*, *E. micrantha* and *E. nemorosa*. † var. *ericetorum* in 2, 4, 5, 6, 8, and 16. var. *tectorum* in 12, 17, and 20.

ADDITIONAL SPECIES IN LIST

2. *Narthecium ossifragum* 2, *Trichophorum cespitosum* 2, *Leucobryum glaucum* 1.
7. *Molinia caerulea* 3, *Juncus effusus* +, *Sphagnum capillaceum* 2.
9. *Cirsium vulgare* +.
10. *Asplenium viride* +, *Oxyria digyna* +, *Taraxacum officinale* agg. 2.
11. *Alchemilla wichurae* 3.
12. *Isothecium myosuroides* var. *brachythecioides* 2, *Barbilophozia lycopodioides* 2, *Herberta straminea* 1, *Scapania aspera* 1, *Tritomaria quinquedentata* 2.
13. *Lycopodium selago* +, *Saxifraga hypnoides* 3, *Atrichum undulatum* 2, *Diphyscium foliosum* +, *Polytrichum urnigerum* 1, *Sphagnum tenellum* 1, *Nardia scalaris* 2.
14. *Sphagnum subsecundum* var. *auriculatum* 2, *Bazzania tricrenata* 1, *Scapania gracilis* +, *S. ornithopodioides* 3.
15. *Carex demissa* 2.
16. *Betula pubescens* 1, *Arrhenatherum elatius* 1.
17. *Sieglingia decumbens* 4, *Anthyllis vulneraria* 2, *Trifolium pratense* 1.
18. *Acrocladium cuspidatum* 1.
19. *Botrychium lunaria* 1, *Cirsium palustre* 3, *Epilobium montanum* 2, *Galium boreale* 1, *Peltigera apthosa* 1.
20. *Antitrichia curtipendula* 1.
21. *Deschampsia cespitosa* 3, *Geum rivale* 1, *Blindia acuta* 1, *Campylium stellatum* 2, *Fissidens cristatus* +.
22. *Vaccinium vitis-idaea* 2, *Cherleria sedoides* 1, *Rhacomitrium heterostichum* 1, *Marsupella alpina* +, *Cladonia coccifera* +.

LOCALITIES

1. Camasunary; 2. Coire na Creiche; 3, 16. Ben Suardal; 4. Corrie Amadal; 5. Preshal More; 6. Slat Bheinn; 7. Healaval Mhor; 8. Sgùrr na Coinnich; 9, 19. Ben Tianavaig; 10, 14, 21. Blà Bheinn; 11, 12, 20. The Storr; 13. Corrie Scamadal; 15. Elgol; 17. Lealt; 18. An Càrnach; 22. Beinn Edra.

‡ Table 4.39 can be found on p. 130.

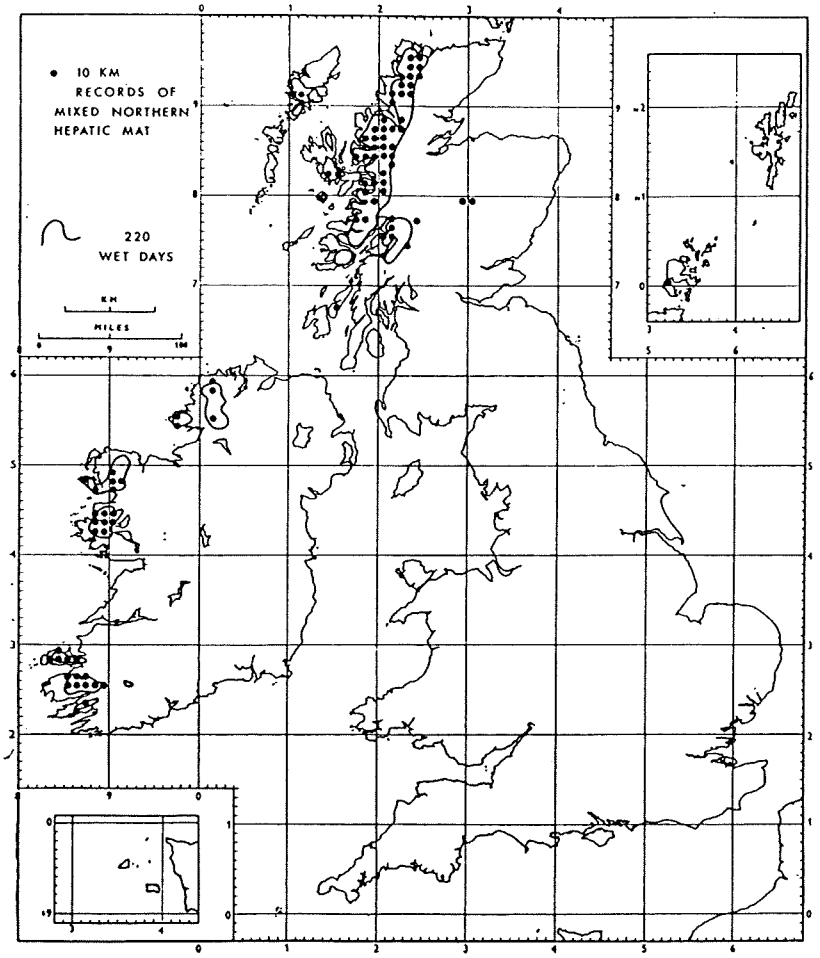


Fig. 4. The distribution of mixed Northern Atlantic hepatic mat in relation to index of limiting humidity.

This community is described on p. 379 and consists of not less than six out of twelve species of montane leafy liverworts growing in a mixed carpet, usually in association with dwarf shrub heath, or on block screes and cliff ledges. The individual species mostly have a wider distribution, and records on the map are confined to places where the various species together achieve dominance in the bryophyte layer of communities with a minimal area of 1 m^2. Occurrences in the Cairngorms are in areas of prolonged snow cover, but that for Hoy, Orkney, suggests that the maritime hills here have a higher local humidity than that indicated by meteorological data for the adjacent sea level areas. Discontinuity or absence within areas of suitable rainfall are due either to destruction of original habitat by grazing and burning or to under-recording. Temperature data are not shown as some species appear to have different limiting temperatures.

TABLE 4.40‡

Class: NARDO-CALLUNETEA

Order: NARDETALIA

Alliance: Nardo–Galion saxatilis

Association	Agrosto–Festucetum (species-poor)										Alchemilleto–Agrosto–Festucetum								Agrosto–Festucetum (species-rich)								Dwarf herb nodum		
Reference Number	1	2	3	4	5	6	7	8			9	10	11	12	13	14			15	16	17	18	19	20			21	22	
	B67	B67	B67	B67	B67	B67	B68	B67			B67	B67	B68	B68	B68	B67			B67	B67	B68	B67	B67	B68			B67	B67	
	087	049	047	121	033	082	162	063			116	015	031	032	086	020			114	046	089	025	117	030			017	132	
Map Reference	513	424	625	433	355	533	222	756			517	542	496	499	485	536			516	613	517	560	517	496			542	456	
	190	256	212	617	300	193	446	212			406	217	536	540	550	212			137	202	604	202	406	536			217	618	
Altitude (feet)	30	200	500	750	750	750	1200	1300			800	1200	1400	1600	1450	1800			100	150	250	500	800	1300			1000	1750	
Aspect (degrees)	180	90	270	270	0	180	0	180			90	315	135	315	90	0			90	315	135	90	90	135			315	90	
Slope (degrees)	5	10	12	5	5	15	8	5			25	10	30	25	25	20			3	5	5	10	30	40			25	30	
Cover (per cent)	100	100	100	100	100	100	100	100			100	100	90	100	85	100			100	100	100	100	100	100			100	100	
Plot area (square metres)	4	4	4	4	4	4	4	4	C	D	4	4	4	4	4	4	C	D	4	4	4	4	4	4	C	D	4	4	D
Calluna vulgaris	.	3	3	.	3	3	1	.	IV	1.6	2	.	.	.	.	.	I	0.3	2	1	.	.	2	.	III	0.8	.	.	
Erica cinerea	.	.	.	.	.	.	.	.			.	.	.	.	.	.			.	.	+	.	.	+	II	0.3	.	.	
Vaccinium myrtillus	.	.	.	.	.	.	2	2	II	0.5	.	.	.	1	+	2	III	0.7	.	.	.	1	.	.	I	0.2	1	2	1.5
Blechnum spicant	.	.	.	.	.	.	2	.	I	0.3	.	.	.	.	.	5	I	0.8	.	.	.	.	3	1	II	0.7	.	.	
Pteridium aquilinum	.	.	1	.	1	.	.	.	II	0.3	.	.	.	.	.	.			.	1	.	.	.	.	I	0.2	.	.	
Selaginella selaginoides	.	.	.	.	.	.	.	.			3	1	.	3	2	.	IV	1.5	.	1	.	.	2	+	III	0.7	3	2	2.5
Agrostis canina	4	3	3	3	3	4	3	3	V	3.3	.	.	.	.	3	.	I	0.5	.	.	4	.	.	.	I	0.7	.	.	
A. tenuis	6	5	5	6	6	6	6	4	V	5.5	4	6	3	6	5	4	V	4.7	6	4	6	3	5	6	V	5.0	.	.	
Anthoxanthum odoratum	3	4	3	3	2	4	3	4	V	3.3	.	5	.	.	5	5	III	2.5	4	2	.	5	3	6	V	3.3	4	1	2.5
Cynosurus cristatus	.	.	.	.	.	.	.	.			.	.	.	.	.	.			3	.	4	1	.	.	III	1.3	.	.	
Deschampsia flexuosa	.	2	.	.	.	.	.	3	II	0.6	.	.	5	.	.	2	II	1.2	.	.	.	.	.	.			.	.	
Festuca ovina	4	2	3	7	5	4	6	5	V	4.5	5	4	3	5	7	2	V	4.3	6	6	7	5	6	7	V	6.2	4	3	3.5
F. rubra	2	.	.	.	.	.	.	2	II	0.5	.	.	.	.	.	.			.	.	5	2	4	4	IV	1.8	.	.	
F. vivipara	3	3	3	6	.	4	3	3	V	3.1	4	2	.	.	5	5	IV	2.7	4	2	4	.	4	.	IV	2.3	2	5	3.5
Holcus lanatus	2	.	.	.	.	.	.	.	I	0.3	2	2	.	.	.	.	II	0.7	.	.	.	.	3	.	I	0.5	.	.	
Nardus stricta	.	.	.	.	.	.	4	.	I	0.5	.	.	.	.	.	.			.	.	.	1	.	.	I	0.2	.	.	
Poa pratensis	.	.	.	.	.	.	.	.			.	.	3	.	.	.	I	0.5	.	2	.	.	.	3	II	0.8	.	.	
Carex binervis	.	.	.	.	3	2	.	.	II	0.6	.	.	.	.	.	.			1	3	.	2	.	3	IV	1.5	.	.	
C. flacca	.	.	.	.	.	.	2	.	I	0.3	.	1	.	.	.	.	I	0.2	.	2	.	.	.	.	I	0.3	3	.	1.5
C. ovalis	.	.	.	.	.	.	.	2	I	0.3	.	.	.	.	.	.			1	.	.	.	.	.	I	0.2	.	.	
C. panicea	.	.	1	.	.	.	.	.	I	0.1	.	.	.	.	.	.			.	.	.	.	.	.			.	.	
C. pilulifera	.	.	.	2	.	.	.	2	II	0.5	.	.	.	.	.	.			.	.	.	.	.	.			.	.	
C. pulicaris	.	.	1	.	.	.	3	.	II	0.5	3	2	.	.	.	.	II	0.8	3	2	2	3	3	.	V	2.2	2	.	1.0
Luzula campestris	2	.	.	.	.	.	.	2	II	0.5	.	2	.	2	2	.	III	1.0	.	.	1	.	.	.	I	0.2	1	.	0.5
L. multiflora	.	.	.	.	.	.	.	.			4	.	.	.	.	.	I	0.7	.	.	.	.	3	.	I	0.5	.	.	
L. sylvatica	.	.	.	.	.	.	.	.			.	.	.	1	3	.	II	0.7	.	.	.	2	.	.	I	0.3	.	.	
Achillea millefolium	.	.	1	.	.	.	.	.	I	0.1	2	.	.	3	.	2	II	1.2	.	.	.	.	.	.			.	.	
Alchemilla alpina	.	.	.	.	.	.	.	.			6	5	7	7	5	3	V	5.5	.	.	.	.	.	+	I	0.2	3	5	4.0
A. vestita	.	.	.	.	.	.	.	.			.	3	3	4	1	.	IV	1.8	.	.	.	.	.	.			2	.	1.0
A. xanthochlora	.	.	.	.	.	.	.	.			4	.	4	5	.	.	III	2.2	.	2	.	.	3	+	III	1.0	.	1	0.5
Angelica sylvestris	.	.	.	.	.	.	.	.			.	3	.	.	.	.	I	0.5	.	.	.	.	.	.			2	.	1.0
Antennaria dioica	.	.	.	.	.	1	.	.	I	0.1	.	.	.	.	.	.			.	2	.	+	.	.	II	0.5	.	.	
Bellis perennis	.	.	.	.	1	.	.	.	I	0.1	.	3	.	.	+	.	II	0.7	2	2	2	1	.	.	IV	1.2	3	.	1.5
Cerastium holosteoides	.	.	.	.	.	.	.	.			.	.	.	.	+	.	I		.	.	+	1	2	2	IV	1.0	.	.	
**Euphrasia officinalis* agg.	.	.	.	3	.	.	.	.	I	0.4	.	1	3	3	2	.	IV	1.5	2	.	3	.	1	4	IV	1.7	.	2	1.0
Filipendula ulmaria	.	.	.	.	.	.	.	.			1	3	.	.	.	.	II	0.7	.	1	.	.	2	.	II	0.5	1	.	0.5
Fragaria vesca	.	.	.	.	.	.	.	.			1	.	.	.	.	.	I	0.2	.	1	.	.	.	.	I	0.2	.	.	
Galium saxatile	2	2	1	4	3	3	4	4	V	2.0	.	.	3	4	3	5	IV	2.5	.	.	.	4	1	.	II	0.8	.	3	1.5
Hieracium pilosella	.	.	.	.	.	.	.	.			2	1	.	.	.	.	II	0.5	1	.	3	1	.	.	III	0.8	1	.	0.5
Hypericum pulchrum	.	.	.	.	.	.	.	.			2	.	.	.	.	.	I	0.3	.	.	1	.	1	+	II	0.5	.	1	0.5
Linum catharticum	.	.	.	.	.	.	.	.			.	.	.	.	.	.			3	1	4	.	3	.	IV	1.8	.	.	
Lotus corniculatus	.	.	2	.	.	.	.	.	I	0.3	4	.	.	.	.	.	I	0.7	4	3	4	.	6	5	V	3.7	.	.	
Oxalis acetosella	.	.	.	.	.	.	.	.			1	+	.	+	1	+	V	0.8	.	.	.	2	.	.	I	0.3	+	.	0.5
Parnassia palustris	.	.	.	.	.	.	.	.			.	.	+	3	.	.	II	0.7	.	1	.	.	1	.	II	0.3	2	.	1.0
Pedicularis sylvatica	.	2	.	.	.	3	.	.	II	0.6	.	.	.	.	.	.			.	.	.	.	.	.			.	.	
Pinguicula vulgaris	.	.	.	.	.	.	.	.	I	[illegible]	.	.	.	.	.	.			.	.	.	.	.	.	I	0.2	1	.	0.5
Polygala serpyllifolia	.	.	1	.	1	2	.	.	II	0.5	.	.	.	.	.	.			4	1	2	.	.	.	III	1.2	.	.	
Polygonum viviparum	.	.	.	.	.	.	.	.			.	.	.	.	.	.			.	2	.	.	.	.	I	0.3	2	+	1.5
Plantago lanceolata	.	1	2	.	1	.	.	.	II	0.5	1	1	.	.	.	.	II	0.3	3	2	3	.	2	.	IV	1.7	.	.	
P. maritima	.	.	.	.	.	.	.	.			.	.	.	.	.	.			.	.	2	.	2	.	II	0.7	.	.	
Potentilla erecta	1	2	2	5	3	2	4	2	V	2.6	3	.	.	3	.	3	III	1.5	4	3	3	2	3	3	V	3.0	3	3	3.0
Primula vulgaris	.	.	.	.	.	.	.	.			3	.	.	.	.	.	I	0.5	.	.	1	.	4	.	II	0.8	.	.	
Prunella vulgaris	.	.	.	.	.	.	1	.	I	0.1	3	.	3	4	3	.	IV	2.2	2	1	3	3	3	3	V	2.5	.	.	
Ranunculus acris	1	.	.	.	.	.	.	.	I	0.1	.	3	+	3	6	.	IV	2.2	.	2	.	2	3	3	IV	1.7	2	.	1.0
Rumex acetosa	.	.	2	.	.	.	.	.	I	0.3	2	2	+	3	+	.	V	1.5	.	3	.	.	3	3	III	1.5	2	.	1.0
Saxifraga aizoides	.	.	.	.	.	.	.	.			.	3	.	.	.	.	I	0.5	.	.	.	1	.	.	I	0.2	.	.	
Sedum rosea	.	.	.	.	.	.	.	.			.	+	.	.	.	.	I	0.2	.	.	.	+	.	.	I	0.2	1	.	0.5
Sibbaldia procumbens	.	.	.	.	.	.	.	.			.	.	.	.	.	.			.	.	.	.	.	.			3	4	3.5
Silene acaulis	.	.	.	.	.	.	.	.			.	.	.	.	.	.			.	.	.	.	.	.			6	4	5.0
S. maritima	.	.	.	.	.	.	.	.			.	.	.	.	.	.			.	.	2	.	1	.	II	0.5	.	.	
Succisa pratensis	.	.	.	.	.	.	.	.			1	.	.	.	.	.	I	0.2	.	.	.	.	3	.	I	0.5	1	.	0.5
Thymus drucei	.	.	2	.	.	.	2	.	II	0.5	4	4	3	4	4	.	V	3.2	3	2	3	3	5	4	V	3.3	2	4	3.0
Trifolium repens	3	.	.	2	.	.	.	.	II	0.6	1	.	.	.	.	.	I	0.2	.	.	2	.	2	.	II	0.7	.	.	
Veronica serpyllifolia	1	.	.	.	.	.	.	.	I	0.1	3	.	1	1	3	.	IV	1.3	.	.	.	.	.	+	I	0.2	.	.	
Viola riviniana	.	.	.	3	.	.	2	2	II	0.9	2	3	.	3	+	+	V	1.7	.	2	2	2	3	3	V	2.0	2	3	2.5
Breutelia chrysocoma	.	3	.	2	.	.	.	.	II	0.6	.	4	.	3	5	5	IV	2.8	4	.	.	2	3	1	IV	1.7	+	.	0.5
Ctenidium molluscum	.	.	.	.	.	.	.	.			.	6	.	.	.	.	I	1.0	2	3	3	3	2	.	V	2.2	5	.	2.5
Dicranum scoparium	.	.	2	3	2	2	1	2	IV	1.5	2	.	.	.	.	.	I	0.3	.	.	.	1	.	.	I	0.2	.	.	
Ditrichum flexicale	.	.	.	.	.	.	.	.			.	5	.	.	.	.	I	0.8	.	.	3	.	.	.	I	0.5	3	.	1.5
Hylocomium splendens	3	3	3	6	3	.	4	3	V	3.1	5	.	4	4	4	6	V	3.8	5	3	1	2	4	4	V	3.2	2	.	1.0
†*Hypnum cupressiforme*	.	1	.	4	2	2	.	3	IV	1.5	.	.	.	3	.	.	I	0.5	2	4	4	2	.	1	V	2.2	.	.	
Mnium hornum	.	.	.	.	.	.	.	.			.	.	.	+	.	.	I	0.2	.	.	.	1	.	.	I	0.2	.	.	
Pleurozium schreberi	.	4	3	3	1	3	.	3	IV	2.1	.	.	.	.	.	.			.	.	.	2	.	.	I	0.3	.	.	
Polytrichum alpinum	.	.	.	.	.	.	.	.			.	.	.	.	3	5	II	1.3	.	.	.	.	.	.			2	3	2.5
P. formosum	.	.	.	.	3	.	3	.	II	0.8	.	.	2	.	.	.	I	0.3	.	.	.	.	1	2	II	0.5	.	.	
P. piliferum	.	.	.	.	.	.	.	2	I	0.3	.	.	.	.	.	.			.	.	.	.	.	.			.	3	1.5
Pseudoscleropodium purum	.	.	.	1	.	.	.	.	I	0.1	4	.	.	.	.	.	I	0.7	2	3	3	.	4	1	V	2.2	.	1	0.5
Rhacomitrium lanuginosum	.	.	+	1	.	.	1	3	III	0.8	2	.	5	.	4	5	IV	2.7	1	3	.	.	5	2	IV	1.8	3	4	3.5
Rhytidiadelphus loreus	.	.	.	3	.	.	3	3	II	1.1	.	.	5	4	4	8	IV	3.5	.	3	.	.	.	2	II	0.8	.	.	
R. squarrosus	2	.	2	.	.	.	3	3	III	1.3	3	.	4	1	2	.	IV	1.7	.	.	.	2	2	5	III	1.5	.	.	
R. triquetrus	.	.	.	.	.	.	.	.			5	.	.	+	.	.	II	1.0	.	.	4	.	3	.	II	1.2	.	.	
Thuidium tamariscinum	.	.	.	3	1	.	1	.	II	0.6	+	.	.	4	1	4	IV	1.7	.	2	.	.	4	2	III	1.3	.	.	
Anastrepta orcadensis	.	.	.	.	.	.	.	.			.	.	.	1	.	3	II	0.7	.	.	.	.	.	.					
Diplophyllum albicans	.	.	.	.	.	.	.	.			.	.	.	1	1	3	III	0.8	.	.	.	.	.	.			.	1	0.5
Frullania tamarisci	.	.	.	.	.	.	.	.			2	.	.	2	2	.	III	1.0	2	.	2	.	3	2	IV	1.5	1	.	0.5
Ptilidium ciliare	.	.	.	.	.	.	.	.			.	.	.	2	.	.	I	0.3	.	.	.	.	.	2	I	0.3	.	2	1.0
Riccardia pinguis	.	.	.	.	.	.	.	.			.	.	.	.	.	.			1	.	.	.	.	.	I	0.2	.	.	
Cladonia arbuscula	.	.	.	.	.	.	.	.			.	.	.	.	.	.			.	.	1	1	.	1	III	0.5	.	.	
C. uncialis	.	.	.	.	.	.	.	1	I	0.1	.	.	.	.	.	.			.	.	.	.	.	.			.	1	0.5
Peltigera canina	1	.	.	.	.	.	.	.	I	0.1	.	.	1	1	.	.	II	0.3	.	.	.	.	.	1	I	0.2	.	.	
Total number of species (140)	15	19	22	22	18	15	25	24			36	30	22	42	38	26			27	37	37	33	45	36			39	28	

Agrosto–Festucetum (species-poor): Mean number of species per relevé = 20. Total number of species in association = 59.

Alchemilleto–Agrosto–Festucetum: Mean number of species per relevé = 32 3. Total number of species in association = 87.

Agrosto–Festucetum (species-rich): Mean number of species per relevé = 35.8. Total number of species in association = 89.

Dwarf herb nodum: Mean number of species per relevé = 33.5. Total number of species in nodum = 53.

* Including *E. confusa, E. brevipila, E. micrantha* and *E. nemorosa*. † var. *ericetorum* in 2, 4, 5, 6, 8, and 16. var. *tectorum* in 12, 17, and 20.

ADDITIONAL SPECIES IN LIST

2. *Narthecium ossifragum* 2, *Trichophorum cespitosum* 2, *Leucobryum glaucum* 1.
7. *Molinia caerulea* 3, *Juncus effusus* +, *Sphagnum capillaceum* 2.
9. *Cirsium vulgare* +.
10. *Asplenium viride* +, *Oxyria digyna* +, *Taraxacum officinale* agg. 2.
11. *Alchemilla wichurae* 3.
12. *Isothecium myosuroides* var. *brachythecioides* 2, *Barbilophozia lycopodioides* 2, *Herberta straminea* 1, *Scapania aspera* 1, *Tritomaria quinquedentata* 2.
13. *Lycopodium selago* +, *Saxifraga hypnoides* 3, *Atrichum undulatum* 2, *Diphyscium foliosum* +, *Polytrichum urnigerum* 1, *Sphagnum tenellum* 1, *Nardia scalaris* 2.
14. *Sphagnum subsecundum* var. *auriculatum* 2, *Bazzania tricrenata* 1, *Scapania gracilis* +, *S. ornithopodioides* 3.
15. *Carex demissa* 2.
16. *Betula pubescens* 1, *Arrhenatherum elatius* 1.
17. *Sieglingia decumbens* 4, *Anthyllis vulneraria* 2, *Trifolium pratense* 1.
18. *Acrocladium cuspidatum* 1.
19. *Botrychium lunaria* 1, *Cirsium palustre* 3, *Epilobium montanum* 2, *Galium boreale* 1, *Peltigera apthosa* 1.
20. *Antitrichia curtipendula* 1.
21. *Deschampsia cespitosa* 3, *Geum rivale* 1, *Blindia acuta* 1, *Campylium stellatum* 2, *Fissidens cristatus* +.
22. *Vaccinium vitis-idaea* 2, *Cherleria sedoides* 1, *Rhacomitrium heterostichum* 1, *Marsupella alpina* +, *Cladonia coccifera* +.

LOCALITIES

1. Camasunary; 2. Coire na Creiche; 3, 16. Ben Suardal; 4. Corrie Amadal; 5. Preshal More; 6. Slat Bheinn; 7. Healaval Mhor; 8. Sgùrr na Coinnich; 9, 19. Ben Tianavaig; 10, 14, 21. Blà Bheinn; 11, 12, 20. The Storr; 13. Corrie Scamadal; 15. Elgol; 17. Lealt; 18. An Càrnach; 22. Beinn Edra.

‡ Table 4.39 can be found on p. 130.

TABLE 4.35

Class	ELYNO-SESLERIETEA
Order	ELYNO-DRYADETALIA
Alliance	**Kobresio-Dryadion**
Association	*Dryas octopetala–Carex flacca*

Facies	*Typicum*		*Flushed*			*Leached*				*Arctostaphylos*				
	1	2	3	4	5	6	7	8	9	10	11	12		
Reference Number	B68 258	B68 307	B67 001	B67 004	B67 074	B68 215	B68 216	B68 260	B68 305	B68 259	B68 306	B67 119		
Map Reference	611 201	617 197	611 202	612 198	594 200	584 187	584 187	584 187	619 196	611 201	617 197	611 201		
Altitude (feet)	75	400	100	250	100	100	75	75	450	75	400	75		
Aspect (degrees)	270	0	0	315	0	270	270	270	315	225	0	270		
Slope (degrees)	3	8	8	10	8	5	5	5	6	5	10	10		
Cover (per cent)	60	100	100	100	100	100	100	100	100	60	100	80		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	4	4	C	D
Arctostaphylos uva-ursi	.	.	.	.	.	.	.	.	.	7	6	7	II	1.7
Betula pubescens	.	.	+	+	1	.	.	.	.	.	.	.	II	0.3
Calluna vulgaris	.	.	.	1	2	5	4	7	4	.	.	.	III	1.9
Dryas octopetala	8	9	7	7	7	7	8	5	8	5	6	.	V	6.4
Rubus saxatilis	2	.	1	.	.	.	.	.	.	1	.	3	II	0.6
Selaginella selaginoides	.	.	3	3	2	.	.	.	.	.	1	.	II	0.8
Agrostis canina	.	.	.	2	.	.	3	.	.	.	.	.	I	0.4
Anthoxanthum odoratum	.	.	3	3	.	.	3	2	2	.	.	4	III	1.4
Cynosurus cristatus	.	.	.	3	.	4	3	.	.	.	.	.	II	0.8
Festuca ovina	.	.	4	3	3	3	2	2	3	.	.	.	III	1.7
F. vivipara	4	2	4	2	4	.	2	3	2	2	3	4	V	2.7
Molinia caerulea	3	.	.	.	.	2	.	.	3	3	3	.	III	1.2
Sieglingia decumbens	3	.	.	.	.	4	4	4	2	2	3	.	III	1.8
Carex flacca	5	5	5	5	6	4	4	4	5	5	4	5	V	4.8
C. panicea	.	.	5	.	2	.	.	.	.	.	.	1	II	0.7
C. pulicaris	.	4	.	3	.	5	3	3	2	1	2	.	IV	1.9
Luzula campestris	.	.	.	.	.	.	2	.	2	.	.	1	II	0.4
Antennaria dioica	.	.	2	3	3	.	.	2	.	.	.	.	II	0.8
Bellis perennis	.	.	.	2	1	3	1	2	.	.	.	.	III	0.8
Centaurea nigra	.	.	.	.	.	.	.	.	.	1	.	3	I	0.3
Cerastium holosteoides	.	.	.	1	.	.	.	.	1	.	.	.	I	0.2
Euphrasia confusa	.	1	.	1	.	.	4	2	1	.	.	.	III	0.8
Hieracium pilosella	1	1	2	2	2	4	1	3	2	4	1	.	V	1.9
Hypericum pulchrum	.	.	+	.	2	.	.	.	.	1	1	1	III	0.5
Linum catharticum	4	4	.	1	.	4	3	2	4	4	3	.	IV	2.4
Lotus corniculatus	4	.	5	5	2	1	2	1	.	1	.	2	IV	1.9
Pinguicula vulgaris	.	.	3	2	3	.	.	.	.	.	.	.	II	0.7
Plantago lanceolata	.	.	2	3	2	3	2	3	.	.	.	.	III	1.3
P. maritima	3	2	2	1	2	.	5	3	.	2	.	2	IV	1.8
Polygala vulgaris	.	.	2	3	2	2	1	1	.	.	.	.	III	0.9
Potentilla erecta	.	1	1	4	2	1	+	3	3	.	2	.	IV	1.5
Prunella vulgaris	2	.	.	2	.	.	.	.	.	2	.	.	II	0.5
Succisa pratensis	.	.	.	2	2	.	.	.	1	.	3	.	II	0.7
Thymus drucei	4	3	5	2	3	4	3	1	4	3	3	3	V	3.2
Trifolium repens	.	.	.	2	.	.	+	.	.	.	.	.	I	0.3
Viola riviniana	.	.	+	3	.	2	3	4	2	1	2	2	IV	1.7
Breutelia chrysocoma	3	5	4	.	.	.	.	.	.	3	5	4	III	2.0
Ctenidium molluscum	5	5	4	5	5	3	3	1	4	4	5	5	V	4.1
Dicranum scoparium	.	.	.	2	.	3	1	2	.	1	.	.	II	0.8
Ditrichum flexicaule	3	.	2	5	3	.	.	2	.	1	.	1	III	1.4
Fissidens cristatus	.	.	.	.	.	2	.	.	.	.	2	2	II	0.5
Hylocomium brevirostre	.	4	.	1	.	.	3	.	2	1	.	.	III	0.9
H. splendens	.	2	2	5	.	3	.	4	5	.	3	3	IV	2.3
**Hypnum cupressiforme*	.	4	2	4	.	2	1	.	.	.	.	.	III	1.1
Neckera complanata	.	.	.	.	.	1	1	.	.	.	.	.	I	0.2
N. crispa	2	4	1	.	.	.	.	1	.	.	.	.	II	0.7
Pseudoscleropodium purum	.	3	.	.	.	.	.	2	4	4	3	.	III	1.3
Rhacomitrium lanuginosum	.	.	3	4	3	.	.	.	1	.	.	.	II	0.9
Rhytidiadelphus triquetrus	.	.	.	.	.	2	2	.	3	.	3	.	II	0.8
Thuidium tamariscinum	.	.	.	2	.	.	1	.	1	.	1	.	II	0.4
Tortella tortuosa	6	3	2	.	4	3	3	1	1	2	2	3	V	2.5
Frullania tamarisci	.	.	2	.	.	+	2	.	.	.	.	.	II	0.4
Scapania aspera	.	.	1	.	1	.	.	.	1	.	2	.	II	0.4
Total number of species (86)	19	19	36	43	28	26	32	31	29	25	26	22		

* var. *tectorum* in 2, 3, 4, 6. and 7. Mean number of species per relevé = 28.0.

ADDITIONAL SPECIES IN LIST

1. *Solidago virgaurea* 1, *Collema* sp. 2.
3. *Salix* sp. +, *Pteridium aquilinum* 2, *Carex nigra* 2, *Thalictrum alpinum* 2, *Acrocladium cuspidatum* +, *Entodon concinnus* +.
4. *Alchemilla xanthochlora* 2, *Anemone nemorosa* 1, *Filipendula ulmaria* 1, *Geum rivale* 1, *Gnaphalium sylvaticum* 1, *Lathyrus montanus* 1, *Campylium stellatum* 3.
5. *Festuca rubra* 3, *Schoenus nigricans* 2, *Saxifraga aizoides* 2.
6. *Leontodon autumnalis* 3, *Ranunculus acris* 1, *Taraxacum officinale* agg. 2.
8. *Erica cinerea* 5, *Campylium protensum* 1, *Rhytidiadelphus loreus* 2, *R. squarrosus* 1.
9. *Vaccinium myrtillus* 2, *Primula vulgaris* 3.
10. *Carex hostiana* 3.
11. *Polystichum aculeatum* 1, *Oxalis acetosella* 1.
12. *Encalypta streptocarpa* 1, *Orthotrichum anomalum* 1, *Pleurozium schreberi* 1.

LOCALITIES

1, 3, 10, 12. Coille Gaireallach; 2, 4, 5, 9, 11. Ben Suardal; 6, 7, 8. Camas Malag.

TABLE 4.56 LIMESTONE PAVEMENT COMMUNITIES

	1	2	3	4	5
Reference Number	B68 263	B68 302	B68 329	B68 303	B68 304
Map Reference	58–18–	61–12–	57–20–	61–19–	61–19–
Altitude (feet)	100	300	100	500	500
Aspect (degrees)	270	270	225	315	315
Slope (degrees)	5	5	5	10	10
Plot area (square metres)	50	30	200	200	50
Species recorded mostly from saxicolous communities					
Asplenium adiantum-nigrum	.	×	.	×	.
A. ruta-muraria	×	.	×	×	.
A. trichomanes	×	×	×	×	×
A. viride	.	×	.	×	×
Camptothecium sericeum	×	.	×	×	×
Encalypta streptocarpa	.	×	×	×	.
Fissidens cristatus	×	×	×	×	×
Grimmia apocarpa	×	×	×	×	×
Neckera crispa	×	×	×	×	×
Orthotrichum anomalum	.	×	×	×	.
Tortella tortuosa	×	×	×	.	×
Trichostomum crispulum	×	.	.	×	.
Collema crispum	×	×	×	×	×
Species recorded mostly from grassland and dwarf-shrub communities					
Dryas octopetala	×	.	.	×	×
Rosa pimpinellifolia	×	.	×	×	.
Anthoxanthum odoratum	×	×	×	×	.
Arrhenatherum elatius	×	.	×	×	×
Festuca ovina	×	.	.	×	×
F. rubra	×	.	×	×	×
F. vivipara	×	×	×	×	×
Molinia caerulea	×	×	×	×	×
Sieglingia decumbens	×	×	.	×	.
Carex flacca	×	×	×	×	×
C. pulicaris	×	×	×	×	×
Antennaria dioica	×	.	×	×	×
Bellis perennis	×	×	×	×	.
Cirsium vulgare	×	.	×	×	.
Euphrasia confusa and *E. nemorosa*	×	×	×	×	.
Galium verum	×	.	×	.	.
Hieracium pilosella	×	×	×	×	×
Hypericum pulchrum	×	.	×	×	×
Linum catharticum	×	×	×	×	×
Lotus corniculatus	×	.	×	×	×
Plantago lanceolata	×	×	×	×	.
P. maritima	×	×	×	×	×
Polygala vulgaris	.	×	×	.	.
Polygonum viviparum	×	.	.	×	×
Potentilla erecta	×	.	×	×	×
Prunella vulgaris	×	.	×	×	.
Ranunculus repens	×	.	.	×	.
Succisa pratensis	.	×	×	×	×
Thymus drucei	×	×	×	×	×
Viola riviniana	×	×	×	×	×
Campylium protensum	×	.	×	.	.
Ditrichum flexicaule	.	×	×	×	×
Hylocomium splendens	×	×	.	×	×
**Hypnum cupressiforme*	.	×	×	×	×

	1	2	3	4	5
Reference Number	B68 263	B68 302	B68 329	B68 303	B68 304
Map Reference	58–18–	61–12–	57–20–	61–19–	61–19–
Altitude (feet)	100	300	100	500	500
Aspect (degrees)	270	270	225	315	315
Slope (degrees)	5	5	5	10	10
Plot area(square metres)	50	30	200	200	50
Species recorded mostly from woodland communities					
Crataegus monogyna	×	.	×	×	.
Corylus avellana	.	.	×	×	×
Hedera helix	×	×	×	×	×
Salix aurita	×	×	.	×	.
Athyrium filix-femina	×	.	.	×	.
Dryopteris borreri	×	×	.	×	×
Phyllitis scolopendrium	×	×	×	×	×
Polystichum aculeatum	×	×	×	×	×
Pteridium aquilinum	.	.	×	×	×
Brachypodium sylvaticum	×	×	×	×	×
Allium ursinum	×	.	×	×	×
Endymion non-scriptus	.	.	×	×	×
Listera ovata	.	.	×	×	.
Anemone nemorosa	×	.	.	×	×
Epilobium montanum	.	.	×	×	.
Filipendula ulmaria	×	.	×	×	.
Hypericum androsaemum	×	.	×	.	.
Oxalis acetosella	.	.	×	×	×
Primula vulgaris	×	×	×	×	×
Sanicula europaea	×	.	×	×	×
Urtica dioica	×	.	.	×	.
Valeriana officinalis	×	.	×	×	×
Vicia sepium	×	×	×	×	.
Hylocomium brevirostre	×	×	×	×	.
Isothecium myurum	.	×	.	×	×
Mnium undulatum	.	×	×	×	×
Thamnium alopecurum	.	.	×	×	×
Thuidium tamariscinum	.	.	×	×	.
Plagiochila asplenioides	×	.	×	×	×
Other species					
Calluna vulgaris	×	×	.	×	.
Rubus saxatilis	×	×	×	×	×
Epipactis atrorubens	.	.	×	×	.
Fragaria vesca	.	.	×	×	.
Geranium robertianum	×	×	×	×	×
Leontodon autumnalis	×	×	×	.	.
Pinguicula vulgaris	×	.	.	×	.
Solidago virgaurea	.	×	×	.	.
Teucrium scorodonia	×	×	×	×	×
Ctenidium molluscum	×	×	×	×	×
Hypnum cupressiforme	×	.	.	×	×
†Rhacomitrium lanuginosum	×	.	.	×	×
Conocephalum conicum	×	×	.	×	.
Metzgeria pubescens	.	.	×	×	.
Scapania aspera	×	×	×	×	×
Total number of species (129)	69	52	85	95	63

* var. *ericetorum*.

† var. *tectorum*.

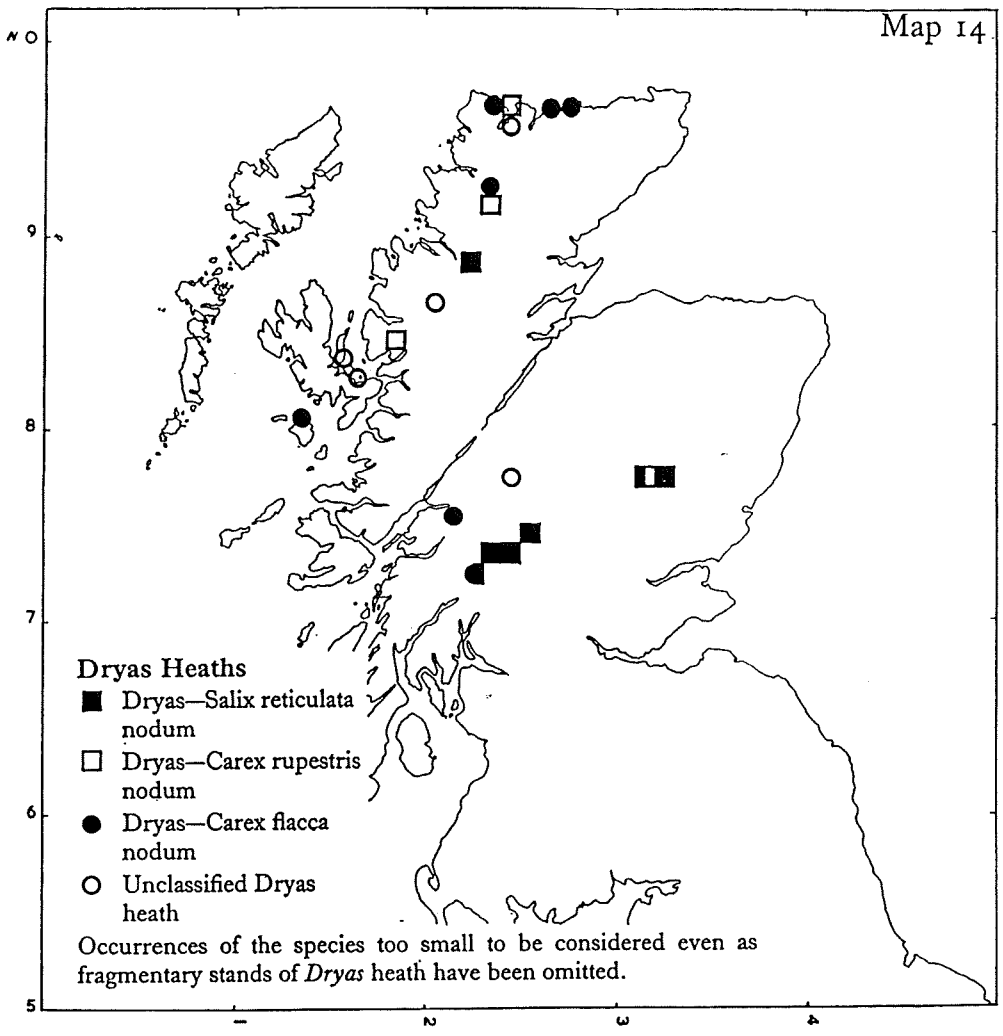
Mean number of species per stand = 72.8.

ADDITIONAL SPECIES IN LIST

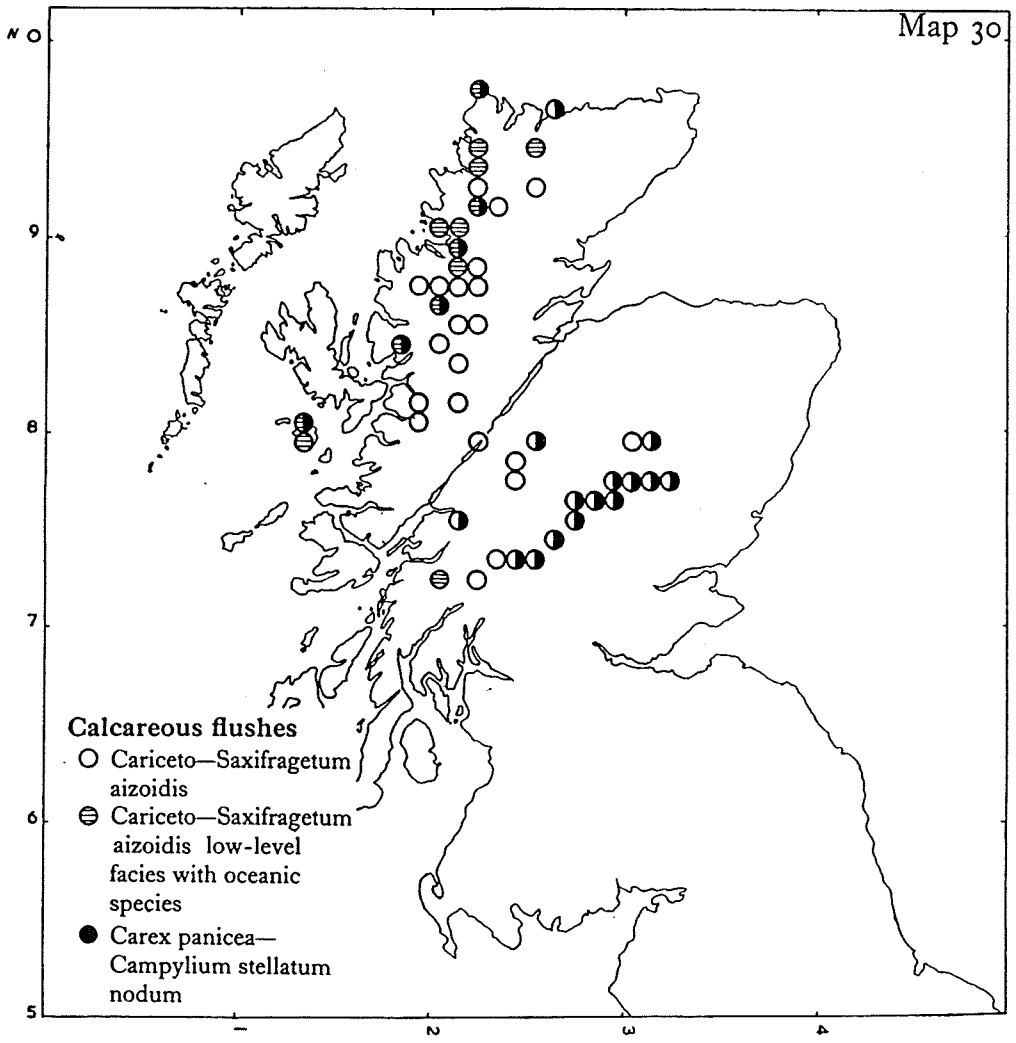
2. *Erica cinerea, Agrostis canina, Centaurea nigra, Tortula muralis, Frullania tamarisci.*
3. *Fraxinus excelsior, Salix repens, Festuca gigantea, Angelica sylvestris, Anthyllis vulneraria, Arabis hirsuta, Senecio jacobea, Anomodon viticulosus, Mnium longirostrum, Neckera complanata, Orthotrichum rupestre, Marchesinia mackaii, Porella laevigata, Protoblastenia rupestris.*
4. *Lonicera periclymenum, Sorbus aucuparia, Cystopteris fragilis, Cardamine pratensis, Cirsium heterophyllum, Geum rivale, Heracleum sphondylium, Stachys sylvatica, Acrocladium cuspidatum, Bryum capillare, Rhytidiadelphus triquetrus.*
5. *Arctostaphylos uva-ursi, Polypodium vulgare, Polystichum lonchitis, Myosotis discolor, Paris quadrifolia, Pseudoscleropodium purum, Gyalecta jenensis. Solorina saccata.*

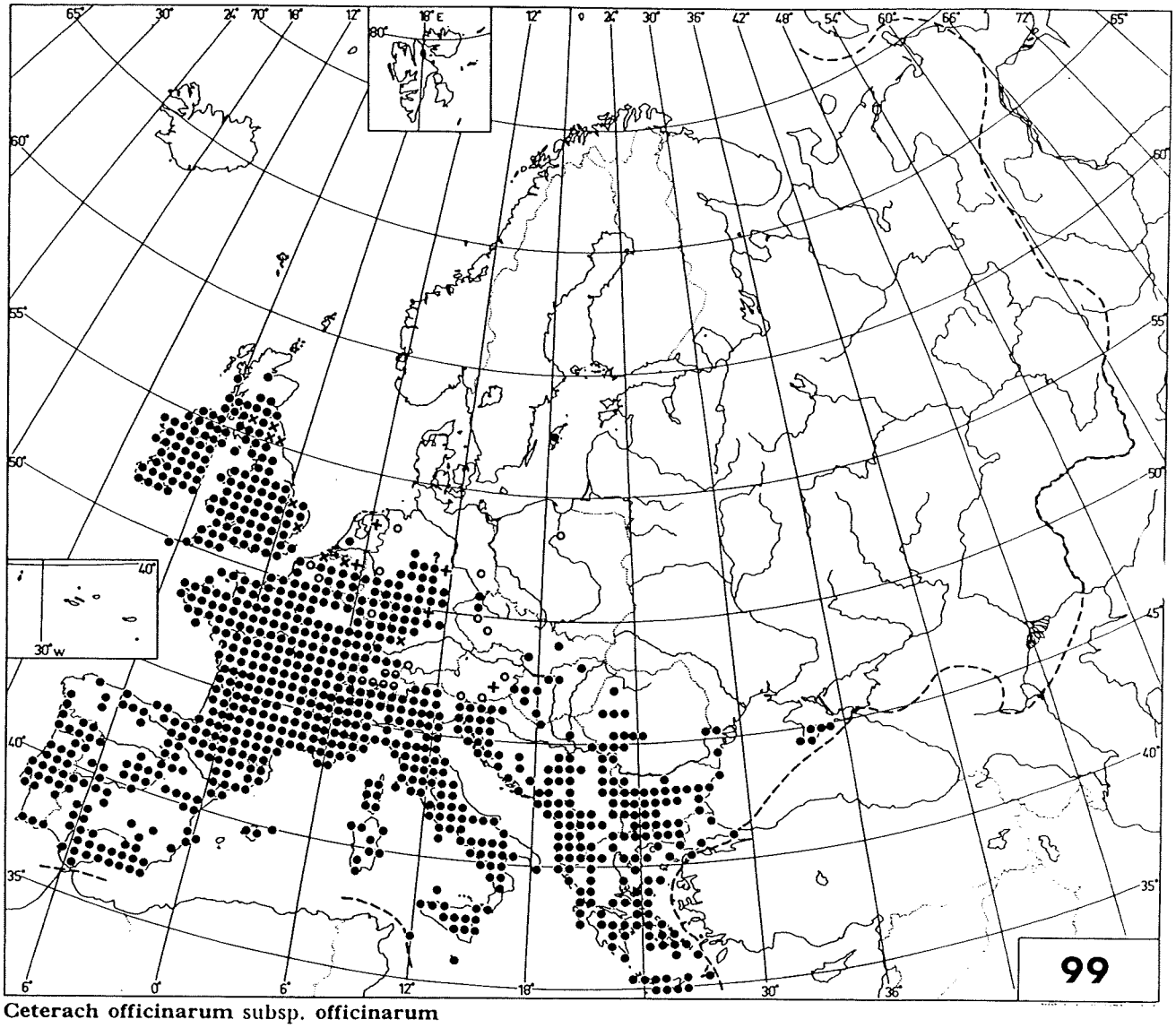
LOCALITIES: 1. Camas Malag; 2. Tokavaig; 3. Torrin; 4, 5. Ben Suardal.

Map 14


Dryas Heaths
Dryas—Salix reticulata nodum
Dryas—Carex rupestris nodum
Dryas—Carex flacca nodum
Unclassified Dryas heath
Occurrences of the species too small to be considered even as fragmentary stands of *Dryas* heath have been omitted.

Map 30


Calcareous flushes
Cariceto—Saxifragetum aizoidis
Cariceto—Saxifragetum aizoidis low-level facies with oceanic species
Carex panicea—Campylium stellatum nodum



Ceterach officinarum subsp. officinarum

Meadow Vegetation

TABLE 4.32

Class	MOLINIO-ARRHENATHERETEA											
Order	MOLINIETALIA COERULEAE											
Alliance	**Filipendulo-Petasition**											
Association	*Juncus acutiflorus-Filipendula ulmaria*											
	1	2	3	4	5	6	7	8	9	10		
Reference Number	B67	B68	B68	B68	B68	B68	B68	B68	B68	B68		
	137	047	028	063	035	048	353	026	360	361		
Map Reference	505	505	500	493	375	505	578	502	514	514		
	646	646	535	486	660	646	086	523	545	545		
Altitude (feet)	250	250	1000	450	50	250	25	500	650	650		
Aspect (degrees)	.	.	90	.	270	.	.	50	90	90		
Slope (degrees)	.	.	12	.	3	4	.	10	5	2		
Cover (per cent)	100	100	100	100	100	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	C	D
Equisetum palustre	4	4	2	3	3	4	.	6	7	9	V	4.2
Thelypteris limbosperma	.	.	+	.	.	.	.	1	.	.	I	0.2
Agrostis canina	4	.	3	.	.	.	.	4	.	.	II	1.1
Anthoxanthum odoratum	.	6	.	4	3	6	5	4	3	3	IV	3.4
Cynosurus cristatus	.	3	.	4	2	4	.	3	.	.	III	1.6
Festuca rubra	.	.	.	.	.	.	5	6	.	.	I	1.1
F. vivipara	1	.	.	2	.	.	.	.	.	3	II	0.6
Holcus lanatus	2	2	2	3	3	3	4	5	4	.	V	2.8
Molinia caerulea	8	7	.	.	.	2	.	.	2	3	III	2.2
Carex echinata	3	2	3	.	.	2	3	3	4	.	IV	2.0
C. nigra	.	.	3	3	.	4	1	5	3	2	IV	2.1
C. panicea	.	.	.	2	.	.	2	.	.	1	II	0.5
C. pulicaris	.	3	.	.	.	2	.	3	1	2	III	1.1
Dactylorchis fuchsii	2	1	.	.	1	.	.	.	.	.	II	0.4
Eleocharis palustris	.	.	.	.	3	3	3	2	.	.	II	1.1
Eriophorum angustifolium	.	3	1	.	.	.	3	.	.	.	II	0.7
Juncus acutiflorus	.	3	8	7	8	6	7	7	5	2	V	5.3
J. articulatus	.	.	+	3	.	.	.	.	.	.	I	0.4
J. effusus	1	.	.	3	.	.	.	4	3	2	III	1.3
Luzula campestris	1	2	.	.	.	3	.	.	3	2	III	1.1
Angelica sylvestris	.	.	.	4	4	3	.	.	.	.	II	1.1
Bellis perennis	.	.	.	2	.	.	.	+	.	.	I	0.3
Caltha palustris	.	.	2	3	4	+	.	+	1	.	III	1.2
Cardamine pratensis	.	.	.	2	.	.	+	.	.	.	I	0.3
Cerastium holosteoides	.	.	.	1	.	1	.	3	.	.	II	0.5
Cirsium palustre	.	.	1	.	.	.	.	4	2	1	II	0.8
Crepis paludosa	.	+	.	.	.	2	.	.	.	.	I	0.3
Epilobium palustre	.	.	2	.	3	.	.	1	2	.	II	0.8
Euphrasia brevipila	.	2	.	1	.	4	1	.	.	2	III	1.0
Filipendula ulmaria	.	3	3	5	6	2	5	3	3	2	V	3.2
Galium palustre	.	.	.	3	2	.	1	2	.	.	II	0.8
G. saxatile	.	.	3	.	.	.	.	2	.	.	I	0.5
Lathyrus montanus	.	.	.	.	.	2	.	2	.	.	II	0.6
L. pratensis	.	2	.	.	3	.	.	+	.	.	II	0.3
Linum catharticum	.	2	.	.	.	.	.	.	.	1	I	0.3
Lotus corniculatus	.	.	.	.	.	1	2	.	.	.	I	0.3
Lychnis flos-cuculi	.	3	1	3	1	3	1	2	2	1	V	1.7
Menyanthes trifoliata	1	4	.	.	.	.	.	.	.	.	I	0.5
Myosotis scorpioides	.	+	.	.	2	.	2	2	.	.	II	0.7
Parnassia palustris	.	3	.	.	.	.	.	2	2	3	II	1.0
Pedicularis palustris	1	5	.	3	+	.	.	.	.	1	III	1.1
P. sylvatica	.	.	.	.	.	.	.	.	1	1	I	0.2
Plantago lanceolata	.	1	.	.	.	3	.	.	.	.	I	0.4
Potentilla erecta	4	.	4	3	.	3	2	3	2	2	IV	2.3
P. palustris	.	4	.	.	.	.	.	.	1	.	I	0.5
Prunella vulgaris	.	.	1	2	1	3	4	2	1	2	IV	1.6
Ranunculus repens	.	5	+	4	2	5	3	5	3	1	V	2.9
Rhinanthus minor ssp. *stenophyllus*	.	2	.	2	2	.	.	.	.	.	II	0.6
Rumex acetosa	.	.	4	.	3	.	.	4	.	.	II	1.1
Succisa pratensis	5	.	.	3	.	4	4	1	.	3	III	2.0
Trifolium pratense	2	2	2	.	3	2	.	.	.	.	III	1.1
T. repens	.	3	.	.	.	5	3	4	.	.	II	1.5
Trollius europaeus	.	2	.	.	.	4	.	.	2	2	II	1.0
Vicia cracca	.	+	.	.	.	3	.	.	.	.	I	0.4
Viola palustris	.	.	2	3	.	.	.	+	1	1	III	0.8
Acrocladium cuspidatum	.	5	3	3	3	4	2	3	3	1	V	2.7
Aulacomnium palustre	2	.	+	.	.	.	.	.	1	.	II	0.4
Campylium stellatum	.	3	.	.	.	.	2	.	.	1	II	0.5
Climacium dendroides	.	4	.	.	.	.	.	2	.	.	I	0.6
Hylocomium splendens	3	.	.	.	.	3	.	5	3	3	III	1.7
Mnium undulatum	.	.	1	.	.	2	2	.	.	.	II	0.5
Philonotis fontana	.	2	.	.	.	.	.	.	1	.	I	0.3
Pseudoscleropodium purum	3	.	.	.	.	4	.	.	1	.	II	0.8
Rhytidiadelphus squarrosus	2	5	3	.	3	5	2	3	4	3	V	3.0
Sphagnum palustre	.	.	4	.	.	.	.	.	2	.	I	0.6
S. plumulosum	2	2	2	.	.	.	.	.	.	.	II	0.6
S. recurvum	.	3	6	.	.	.	.	.	.	.	I	0.9
Thuidium tamariscinum	.	.	1	1	.	.	.	.	1	1	II	0.4
Lophocolea cuspidata	.	.	.	.	.	.	1	.	1	.	I	0.2
Pellia neesiana	.	.	.	+	.	+	3	.	.	.	II	0.5
Trichocolea tomentella	.	3	.	.	.	.	3	.	.	.	I	0.6
Total number of species (107)	25	39	31	34	26	38	33	39	34	33		

Mean number of species per relevé = 33.2

ADDITIONAL SPECIES IN LIST

1. *Salix aurita* 3, *Luzula multiflora* 2, *Narthecium ossifragum* 1, *Lotus pedunculatus* 2, *Pinguicula vulgaris* 1, *Calypogeia fissa* 2.
2. *Gymnadenia conopsea* 3, *Sphagnum subsecundum* var. *inundatum* +.
3. *Carex rostrata* 3, *Polygala serpyllifolia* +, *Polytrichum commune* 3.
4. *Lysimachia nemorum* 1, *Ranunculus flammula* 3, *Valeriana officinalis* 3, *Bryum pseudotriquetrum* 1, *Mnium rugicum* 1.
5. *Dactylis glomerata* 3, *Hypericum tetrapterum* 2, *Senecio aquaticus* 2.
6. *Arrhenatherum elatius* 4, *Deschampsia cespitosa* 3, *Mnium pseudopunctatum* +.
7. *Carex demissa* 1, *Iris pseudacorus* 2, *Hydrocotyle vulgaris* 3, *Drepanocladus revolvens* +, *Riccardia multifida* 1.
8. *Carex ovalis* 2, *Achillea ptarmica* 2.
9. *Cirsium heterophyllum* +, *Galium boreale* 1.
10. *Carex flacca* 3, *C. hostiana* +, *Hypericum pulchrum* 1, *Taraxacum officinale* agg. 1.

LOCALITIES

1, 2, 6. Loch Mealt; 3, 8. The Storr; 4. Loch Fada; 5. Totscore; 7. Rubha Sloc an Eòrna; 9, 10. near Tottrome.

TABLE 4.33

Class	MOLINIO–ARRHENATHERETEA													
Order	ARRHENATHERETALIA													
Alliance	Cynosurion cristati													
Association	*Centaureo–Cynosuretum*													
	1	2	3	4	5	6	7	8	9	10	11	12		
Reference Number	B69 006	B69 011	B69 008	B69 009	B69 007	B69 012	B69 013	B69 014	B69 015	B69 010	B69 016	B69 020		
Map Reference	643 242	518 137	662 223	698 117	662 223	518 137	648 232	648 232	645 235	644 245	643 243	495 667		
Altitude (feet)	30	100	50	50	50	100	30	30	30	50	50	300		
Aspect (degrees)	.	.	.	.	.	.	0	0	.	.	90	.		
Slope (degrees)	.	.	.	.	.	.	5	2	.	.	5	.		
Cover (per cent)	100	100	100	100	100	100	100	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	4	4	C	D
Agrostis tenuis	.	.	.	.	.	.	.	.	.	.	3	4	I	0.6
Anthoxanthum odoratum	3	5	6	7	5	6	6	4	6	5	5	7	V	5.4
Cynosurus cristatus	8	7	7	5	8	8	6	7	8	6	7	5	V	6.8
Dactylis glomerata	3	4	.	.	.	.	.	.	.	.	.	.	I	0.6
Festuca rubra	3	6	4	3	4	4	7	6	4	7	6	6	V	5.0
Holcus lanatus	6	7	7	7	8	6	8	7	8	7	8	8	V	7.3
Lolium perenne	4	4	.	.	.	.	.	.	.	.	.	.	I	0.7
Poa pratensis	3	3	.	3	.	3	4	+	.	.	3	3	IV	2.0
Carex ovalis	.	.	4	.	1	.	.	.	1	.	.	.	II	0.5
Dactylorchis fuchsii	.	.	.	.	1	.	1	.	1	.	.	1	II	0.3
D. purpurella	1	1	.	.	.	.	.	1	4	+	1	.	III	0.8
Juncus effusus	.	.	.	.	.	.	.	.	.	.	3	3	II	0.5
Luzula campestris	.	.	1	2	1	.	3	3	3	3	3	3	IV	1.8
Platanthera chlorantha	.	+	.	1	.	.	.	2	1	.	.	.	II	0.4
Achillea millefolium	.	.	2	.	1	.	.	3	+	.	2	.	III	0.8
Alchemilla glabra	.	1	.	.	.	1	.	.	.	.	.	.	I	0.2
Anthriscus sylvestris	.	+	.	.	.	.	1	1	.	.	.	1	II	0.3
Bellis perennis	5	.	.	.	3	.	.	.	3	.	.	.	II	0.9
Centaurea nigra	3	5	5	6	4	4	5	6	5	4	4	4	V	4.6
Cerastium holosteoides	2	2	.	.	.	+	4	.	+	.	3	1	III	1.2
Chrysanthemum leucanthemum	3	4	6	3	4	5	4	5	4	3	4	3	V	4.0
C. segetum	.	.	.	.	.	.	.	.	.	.	3	3	I	0.5
Cirsium vulgare	1	.	.	.	.	.	+	.	1	.	.	.	II	0.3
Euphrasia brevipila	2	1	3	1	2	2	3	3	3	.	.	3	V	1.9
Filipendula ulmaria	.	.	+	.	.	.	.	1	.	4	.	.	II	0.5
Galium saxatile	.	.	.	+	.	.	.	+	.	.	3	3	II	0.7
Heracleum sphondylium	.	.	.	1	.	.	1	3	+	.	.	2	III	0.7
Hypochoeris radicata	.	2	1	2	2	3	2	1	3	3	.	.	IV	1.6
Lathyrus pratensis	.	.	.	3	.	1	.	4	1	2	.	3	III	1.2
Leontodon autumnalis	.	.	.	.	2	1	.	.	.	.	2	.	II	0.4
Lotus corniculatus	.	1	.	2	.	4	.	2	.	.	3	+	III	1.0
Plantago lanceolata	4	3	4	3	3	3	4	3	4	3	3	4	V	3.4
Potentilla erecta	.	1	.	.	.	1	.	.	.	.	3	3	II	0.7
Prunella vulgaris	+	.	.	3	1	.	.	.	1	.	+	.	III	0.6
Ranunculus repens	3	3	3	3	3	3	3	3	3	4	4	4	V	3.3
Rhinanthus minor ssp. *stenophyllus*	2	4	4	4	5	3	3	5	4	3	2	5	V	3.7
Rumex acetosa	.	4	.	3	.	3	+	3	2	.	4	3	IV	1.9
Senecio jacobea	2	+	3	1	3	2	3	3	3	2	.	3	V	2.2
Trifolium pratense	3	3	5	3	3	4	3	5	5	3	3	3	V	3.4
T. repens	6	3	3	4	4	3	4	3	4	4	4	5	V	3.9
Veronica chamaedrys	.	.	.	2	.	.	3	3	2	.	2	.	III	1.0
Vicia cracca	.	2	.	.	.	1	.	1	1	+	1	2	III	0.8
Acrocladium cuspidatum	.	.	2	.	.	1	.	.	.	4	.	.	II	0.6
Rhytidiadelphus squarrosus	.	+	1	2	3	2	4	+	3	.	1	.	IV	1.5
Thuidium tamariscinum	.	.	.	.	.	+	.	2	.	.	.	.	I	0.3
Total number of species (64)	24	29	20	27	22	26	26	32	31	23	29	30		

Mean number of species per relevé = 26.6.

ADDITIONAL SPECIES IN LIST

1 *Alopecurus pratensis* 3, *Phleum bertolonii* +, *Veronica filiformis* 3.
2. *Gymnadenia conopsea* 1, *Phleum pratensis* 3.
3. *Conopodium vulgare* 2.
4. *Carex flacca* 1, *Brachythecium rutabulum* +.
7. *Alchemilla xanthochlora* 1, *Festuca vivipara* +.
8. *Arrhenatherum elatius* 3, *Hylocomium splendens* 3.
9. *Potentilla anserina* 1.
10. *Carex echinata* 1, *C. panicea* 2, *Deschampsia cespitosa* 2, *Lychnis flos-cuculi* +.
12. *Angelica sylvestris* 1, *Equisetum sylvaticum* 3.

LOCALITIES

1, 10, 11. Corry; 2, 6. Elgol; 3, 5. Waterloo; 4. Camas Croise; 7, 8, 9. Broadford; 12. Staffi

Mountain flora and vegetation

TABLE 5.4

DISTRIBUTION OF MONTANE PLANTS IN THE ISLE OF SKYE

Lower limit (feet)	VASCULAR PLANTS	LOCALITIES 1	2	3	4	5	6	7	8	9	10	11	12
	Arabis alpina	+	.	.	.	.	.	.	.	.	.	.	.
	Cerastium arcticum	+	.	.	.	+	.	.	.	.	.	.	.
	Deschampsia alpina	+	+	.	.	+	+	.	.	.	.	.	.
	Draba norvegica	+	.	.	.	.	.	.	.	.	.	.	.
2000	*Juncus trifidus*	+	+	.	.	.	.	.	.	.	.	.	.
	Dryopteris abbreviata	+	+	.	.	.	.	.	.	.	.	.	.
	Euphrasia frigida	+	.	.	.	+	.	+	.	.	.	.	.
	Gnaphalium supinum	+	.	.	.	+	+	.	.	.	.	.	.
	Juncus biglumis	.	.	.	.	+	+	+	+	.	.	.	.
	J. triglumis	+	.	.	.	+	+	+	+	.	.	.	.
	?Loiseleuria procumbens	+	.	.	.	.	.	.	.	.	.	.	.
	Luzula spicata	+	+	+	+	+	+	.	.	.	.	.	.
	Poa alpina	+	.	.	.	+	.	.	.	.	.	.	.
	Sagina saginoides	.	.	.	.	+	+	+	.	.	.	.	.
	Salix herbacea	+	+	+	+	+	+	+	+	.	+	.	.
	Saxifraga nivalis	+	.	.	.	+	+	+	.	.	.	.	.
1500	*Sibbaldia procumbens*	.	+	.	.	.	+	.	.	.	.	.	.
	Alchemilla wichurae	.	.	.	.	+	.	.	.	.	.	.	.
	Carex bigelowii	+	+	+	+	+	+	+	+	.	+	.	.
	Cryptogramma crispa	+	+	+	.	+	.	.	.	+	.	.	.
	Empetrum hermaphroditum	+	+	+	+	+	+	+	+	.	.	.	.
	Epilobium alsinifolium	+	+	.	.	+	+	+	+	.	.	.	.
	E. anagallidifolium	.	.	.	.	+	+	+	+	.	.	.	.
	Koenigia islandica	.	.	.	.	+	+	.	.	.	.	.	.
	Poa balfourii	.	.	.	.	+	+	+	+	.	.	.	.
	P. glauca	+	.	.	.	+	+	+	+	+	.	.	.
	Rhinanthus borealis	.	.	.	.	+	.	+	+	.	.	.	.
	Salix myrsinites	.	.	.	.	.	.	.	+	.	.	.	.
	Saussurea alpina	+	+	.	.	+	+	+	+	.	+	.	.
	Tofieldia pusilla	+	.	.	.	.	.	.	.	.	.	.	.
1000	*Veronica serpyllifolia* ssp. *humifusa*	.	.	.	.	.	.	+	.	.	.	.	.
	Cochlearia officinalis ssp. *alpina*	+	+	.	.	+	+	+	+	+	.	.	.
	Lycopodium alpinum	+	+	+	+	+	+	+	+	.	.	.	.
	?Orthilia secunda	+	.	.	.	.	.	.	.	.	.	.	.
500	*Saxifraga stellaris*	+	+	+	+	+	+	+	+	.	+	.	.
	Alchemilla alpina	+	+	+	+	+	+	+	+	+	.	+	.
	Arctostaphylos uva-ursi	+	+	+	+	.	.	+	.	.	.	+	+
	Asplenium viride	.	+	.	+	+	+	+	+	.	.	+	+
	Cardaminopsis petraea	+	+	+	.	+	+	+	+	+	.	.	.
	Cherleria sedoides	.	.	.	.	+	+	+	.	.	.	.	.
	Draba incana	.	+	.	.	+	+	+	+	+	.	.	.
	Dryas octopetala	.	+	.	.	.	.	.	.	+	.	+	.
	Festuca vivipara	+	+	+	+	+	+	+	+	+	+	+	+
	Galium boreale	+	+	+	.	+	+	+	+	+	+	+	.
	Juniperus communis ssp. *nana*	+	+	+	+	.	+	.	.	+	+	.	+
	Lycopodium selago	+	+	+	+	+	+	+	+	+	+	+	+
	Oxyria digyna	+	+	+	+	+	+	+	+	+	+	.	.
	Polygonum viviparum	+	+	.	+	+	+	+	+	+	.	+	.
	Polystichum lonchitis	.	+	.	.	+	.	+	+	.	.	+	.
	Rubus saxatilis	+	+	+	+	+	+	+	+	+	+	+	+
	Saxifraga aizoides	.	+	.	.	+	+	+	+	.	.	+	.
	S. hypnoides	+	+	.	.	+	+	+	+	+	+	.	.
	S. oppositifolia	+	+	.	.	+	+	+	+	+	.	.	.
	Sedum rosea	+	+	.	+	+	+	+	+	+	+	.	+
	Silene acaulis	+	+	.	.	+	+	+	+	+	.	.	.
0	*Thalictrum alpinum*	+	+	.	+	+	+	+	+	+	+	+	.
	Total number of species (56)	40	34	16	17	43	38	37	41	19	13	12	7

TABLE 5.4 *continued*

Lower limit (feet)	BRYOPHYTES	LOCALITIES 1	2	3	4	5	6	7	8	9	10	11	12
	Arctoa fulvella	.	+	.	.	.	.	.	.	.	.	.	.
	Conostomum tetragonum	.	+	.	.	.	.	.	.	.	.	.	.
	Dicranum falcatum	.	.	+	.	.	.	.	.	.	.	.	.
	Hylocomium pyrenaicum	.	.	.	.	+	.	.	.	.	.	.	.
	Oncophorus virens	.	.	.	.	+	.	.	.	.	.	.	.
	Pohlia wahlenbergii var. *glacialis*	.	.	.	.	+	.	.	.	.	.	.	.
	Scapania nimbosa	.	.	.	+	.	.	.	.	.	.	.	.
	S. paludosa	.	.	.	.	+	.	.	.	.	.	.	.
2000	*Tritomaria polita*	.	.	.	.	+	.	.	.	.	.	.	.
	Anomobryum concinnatum	.	.	.	.	+	.	.	.	.	.	.	.
	Aulacomnium turgidum	.	.	.	.	+	.	.	.	.	.	.	.
	Barbilophozia lycopodioides	.	.	.	.	+	.	+	.	.	.	.	.
	Bazzania pearsonii	+	.	+	+	.	.	.	.	.	.	.	.
	Bryum weigelii	.	+	.	.	+	.	+	+	.	.	.	.
	Dicranoweisia crispula	.	.	.	.	+	.	+	.	.	.	.	.
	Dicranum starkei	.	+	.	.	.	.	.	.	.	.	.	.
	Ditrichum lineare	+	.	+	.	+	.	.	.	.	.	.	.
	D. zonatum	+	.	+	.	.	.	.	.	.	.	.	.
	Encalypta rhabdocarpa	.	.	.	.	+	.	+	.	.	.	.	.
	Gymnomitrion corallioides	+	.	.	.	.	.	.	.	.	.	.	.
	Lophozia obtusa	.	.	.	.	+	.	.	.	.	.	.	.
	Pohlia polymorpha	.	.	.	.	+	.	.	.	.	.	.	.
	Pterygynandrum filiforme	.	.	.	.	+	.	.	.	.	.	.	.
	?Rhacomitrium microcarpon	.	.	.	.	+	.	.	.	.	.	.	.
	Scapania gymnostomophila	.	.	.	.	+	.	+	.	.	.	.	.
	S. calcicola	.	.	.	.	+	.	+	.	.	.	.	.
1500	*S. uliginosa*	.	.	+	.	.	.	.	.	.	.	.	.
	Amphidium lapponicum	.	.	.	.	+	+	+	+	+	.	.	.
	Anthelia juratzkana	.	+	.	.	+	+	+	.	.	.	.	.
	Encalypta ciliata	.	+	.	.	+	.	+	.	.	.	.	.
	Marsupella alpina	.	+	.	.	.	+	.	.	.	.	.	.
	M. stableri	+	+	+	.	+	.	.	.	.	.	.	.
	Plagiobryum zierii	+	+	.	+	+	+	+	+	.	.	.	.
	Plagiochila carringtonii	+	+	+	+	.	.	.	.	.	.	.	.
	Plagiopus oederi	.	+	.	.	.	.	.	.	.	.	.	.
	Plagiothecium denticulatum var. *obtusifolium*	.	.	.	.	+	+	.	+	.	.	.	.
	Pohlia ludwigii var. *latifolia*	+	.	.	.	.	.	.	.	.	.	.	.
1000	*Solenostoma oblongifolium*	.	+	.	.	+	.	+	.	.	.	.	.
	Andreaea alpina	+	+	+	+	+	+	+	+	+	+	.	.
	Bartramia ithyphylla	+	+	.	+	+	.	+	+	+	.	.	.
	Bryum dixonii	+	.	.	.	.	.	.	.	.	.	.	.
	Dicranum blytii	.	+	.	.	+	.	.	.	.	.	.	.
	Eremonotus myriocarpus	+	+	.	+	+	.	+	.	.	.	.	.
	Grimmia doniana	+	+	+	.	.	.	.	.	.	.	.	.
	G. torquata	.	+	.	.	+	.	+	+	+	.	.	.
	Gymnomitrion concinnatum	+	+	+	.	+	+	.	.	.	.	.	.
	G. obtusum	+	+	+	.	+	.	+	.	.	.	.	.
	Herberta straminea	+	+	.	.	+	+	+	+	.	.	.	.
	Leiocolea heterocolpos	.	+	.	.	.	.	.	.	.	.	.	.
	Leptodontium recurvifolium	.	+	.	.	+	.	.	+	.	.	.	.
	Marsupella adusta	.	+	.	.	.	.	.	.	.	.	.	.
	Mastigophora woodsii	+	+	+	.	+	.	+	.	.	.	.	.
	Mnium orthorhynchum	.	+	.	.	+	.	+	+	.	.	.	.
	Plectocolea subelliptica	.	+	.	.	+	.	.	.	.	.	.	.
	Polytrichum alpinum	+	+	+	+	+	+	+	+	.	+	.	.
	Scapania ornithopodioides	+	+	+	+	.	.	.	.	.	.	.	.
500	*Tetraplodon angustatus*	+	+	.	.	.	.	.	.	.	.	.	.
	Acrocladium sarmentosum	+	+	+	+	+	+	+	+	+	+	.	+
	A. trifarium	+	+	.	.	+	.	.	.	.	.	.	.
	Anastrepta orcadensis	+	+	+	+	+	+	.	.	.	+	+	+

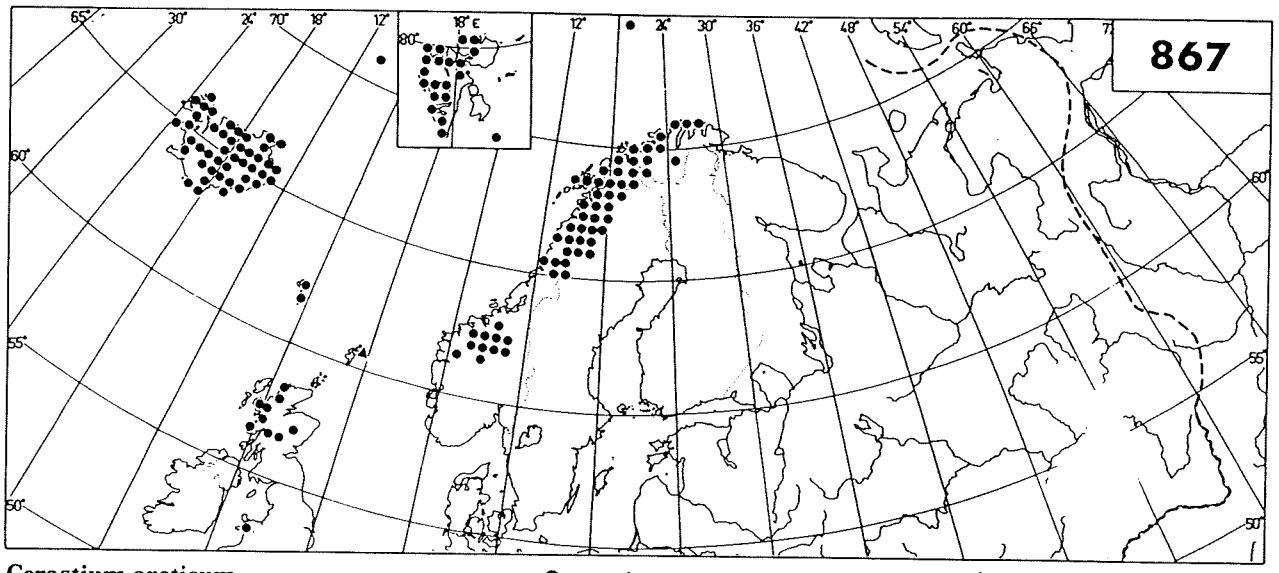
TABLE 5.4 *continued*

Lower limit (feet)	BRYOPHYTES	LOCALITIES 1	2	3	4	5	6	7	8	9	10	11	12
	Anoectangium aestivum	+	+	+	+	+	+	+	+	+	+	.	+
	Antitrichia curtipendula	+	+	.	+	+	+	+	+	+	.	+	.
	Barbula ferruginascens	+	+	.	.	+	+	+	+	+	+	.	.
	B. icmadophila	.	.	.	.	+	.	+	.	.	.	.	.
	Dicranodontium uncinatum	.	+	+	+	.	.	.	.	.	.	.	+
	Distichium capillaceum	.	+	.	+	+	.	+	+	+	.	.	+
	Entodon concinnus	.	.	.	.	+	.	.	.	+	.	+	.
	Grimmia apocarpa var. *homodictyon*	.	.	.	.	+	.	+	+	+	.	.	.
	G. funalis	+	+	.	.	+	.	+	+	+	+	.	+
	G. ovalis	+	.	.	.	+	.	.	.	.	.	.	.
	G. patens	+	+	.	.	.	.	.	+	.	.	.	.
	G. stricta	.	+	.	.	+	+	+	+	+	.	+	+
	Gymnomitrion crenulatum	+	+	+	+	+	.	+	+	.	+	.	.
	Herberta adunca	+	+	+	+	+	.	+	.	.	.	+	+
	Isothecium myosuroides var. *brachythecioides*	.	+	.	.	+	.	+	+	.	.	.	.
	Marsupella sphacelata	+	+	+	.	+	+	.	.	.	.	.	.
	Mnium marginatum	+	+	.	.	+	.	+	+	+	+	+	.
	M. stellare	.	+	.	.	+	.	+	+	.	.	+	+
	Orthothecium intricatum	.	+	.	.	+	.	+	+	.	.	+	+
	O. rufescens	.	+	.	.	.	.	.	+	.	.	+	.
	Pohlia cruda	+	+	.	+	+	+	+	+	+	.	.	.
	P. elongata	+	+	.	+	+	+	.	+	.	+	+	.
	Radula lindbergiana	+	+	.	.	+	.	.	+	.	.	.	+
0	*Rhacomitrium ellipticum*	+	+	.	+	+	+	+	+	+	+	.	.
	Total number of species (84)	37	53	21	20	62	19	37	30	16	11	10	11
	Total number of vascular plants and bryophytes (140)	77	87	37	37	105	57	74	71	35	24	22	18

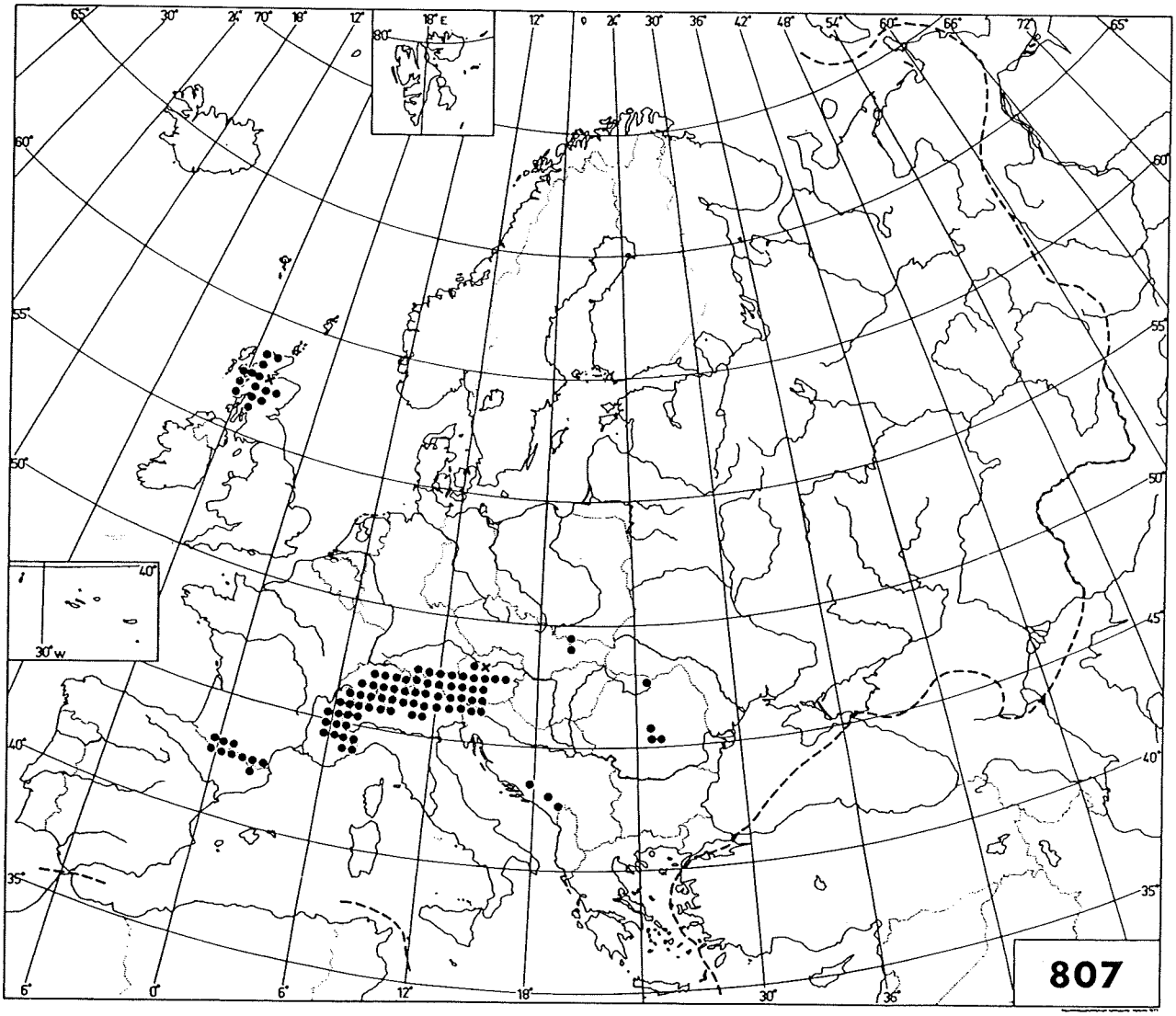
? = not seen recently.

LOCALITIES

1. Cuillins including Glamaig; 2. Blà Bheinn; 3. Red Hills; 4. Kyleakin Hills; 5. The Storr; 6. Beinn Edra; 7. The Quirang; 8. Sgùrr Mor; 9. Ben Tianavaig; 10. Macleod's Tables; 11. Ben Suardal; 12. Sleat Peninsula.



Cerastium arcticum ● = subsp. **arcticum** ▲ = subsp. **edmondstonii**



Minuartia sedoides

TABLE 4.4

Class: ASPLENIETEA RUPESTRIS
Order: POTENTILLETALIA CAULESCENTIS
Alliance: **Potentillion caulescentis**
Association: *Asplenium trichomanes–Fissidens cristatus*

Facies	Basalt				Limestone								Montane			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Reference Number	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68		
	152	191	207	208	159	154	217	304	257	301	231	230	236	238		
Map Reference	272	317	377	377	504	504	584	618	611	615	558	560	539	537		
	531	507	364	364	444	446	187	195	200	120	217	217	216	213		
Altitude (feet)	50	200	300	300	150	250	75	100	75	300	120	100	1500	1600		
Aspect (degrees)	90	45	45	90	180	90	270	315	90	0	0	0	315	315		
Slope (degrees)	90	75	80	90	80	90	80	75	80	90	90	90	80	75		
Cover (per cent)	100	80	80	100	50	50	100	100	100	100	100	100	100	100		
Plot area (square metres)	0.5	2	4	4	2	4	2	1	2	1	2	1	2	2	C	D
Asplenium ruta-muraria	.	.	.	.	7	5	4	5	7	3	.	.	.	.	III	2.2
A. trichomanes	8	7	8	8	6	6	7	7	5	7	7	7	3	6	V	6.6
A. viride	.	.	.	.	.	.	.	5	6	2	3	6	8	7	III	2.8
Cystopteris fragilis	.	.	.	.	.	.	.	3	+	4	5	+	4	3	III	1.5
Phyllitis scolopendrium	.	.	.	.	.	.	1	2	.	2	4	.	.	.	II	0.6
Polystichum aculeatum	.	3	.	1	.	.	3	.	1	.	1	.	.	.	II	0.6
P. lonchitis	.	.	.	.	.	.	.	.	.	.	.	.	3	4	I	0.5
Selaginella selaginoides	.	.	.	.	.	.	.	.	.	.	.	.	1	3	I	0.3
Arrhenatherum elatius	.	.	.	.	3	3	3	.	.	.	.	.	.	.	II	0.6
Festuca ovina	2	3	3	3	5	5	2	3	.	2	1	.	4	2	V	2.5
Allium ursinum	.	.	.	.	.	.	4	.	.	.	2	.	.	.	I	0.4
Carex pulicaris	2	.	.	.	.	.	2	.	.	.	.	.	.	.	I	0.1
Chrysosplenium oppositifolium	.	.	4	3	.	.	.	.	.	.	2	.	.	1	II	0.7
Geranium robertianum	.	.	.	4	2	3	4	3	.	3	.	.	.	.	III	1.4
Epilobium montanum	.	2	.	2	.	.	.	1	.	.	1	.	.	.	II	0.4
Fragaria vesca	.	3	.	4	.	.	.	.	.	.	.	.	.	.	I	0.5
Linum catharticum	.	.	.	.	.	3	2	+	.	.	.	.	.	.	II	0.4
Oxalis acetosella	2	2	4	3	.	.	.	1	.	.	2	.	.	2	III	1.1
Thymus drucei	1	.	.	.	.	1	3	3	.	.	.	.	.	.	II	0.6
Anoectangium aestivum	.	.	.	.	.	.	.	.	.	.	.	.	4	4	I	0.6
Camptothecium sericeum	1	.	.	.	.	5	1	.	.	.	.	.	.	.	II	0.5
Ctenidium molluscum	.	.	.	1	.	.	.	5	6	4	6	6	5	.	III	2.4
Eucladium verticillatum	.	.	.	.	2	.	.	.	.	.	2	.	.	.	I	0.3
Fissidens cristatus	4	2	3	3	2	3	4	4	4	5	4	4	3	3	V	3.4
Isopterygium pulchellum	.	.	.	.	.	.	.	.	.	.	.	.	2	2	I	0.3
Neckera complanata	.	.	.	.	.	2	.	.	.	.	.	4	.	.	I	0.4
N. crispa	.	.	.	.	.	.	4	3	.	.	.	.	.	.	I	0.5
Orthothecium rufescens	.	.	.	.	.	.	.	.	1	.	.	1	1	3	II	0.4
Pohlia cruda	.	.	.	.	.	.	.	.	.	.	.	.	2	3	I	0.4
Thamnium alopecurum	.	.	.	2	.	.	.	.	.	3	2	1	.	.	II	0.6
Tortella tortuosa	.	.	.	.	.	.	3	3	4	5	.	.	6	.	III	1.5
Trichostomum crispulum	6	3	3	3	.	.	.	.	3	4	.	3	.	.	III	1.8
Cololejeunea calcarea	.	.	.	.	.	.	.	.	.	1	2	.	.	.	I	0.2
Conocephalum conicum	.	.	3	3	.	.	.	.	.	3	3	4	.	.	II	1.1
Frullania tamarisci	3	.	.	.	.	.	.	.	.	.	.	.	1	.	I	0.3
Lejeunea cavifolia	3	1	5	3	.	.	.	.	.	.	.	.	.	1	II	1.0
Metzgeria furcata	.	2	6	4	.	.	.	.	.	.	3	.	.	.	II	1.0
Pellia endiviifolia	.	.	.	.	.	.	.	.	.	.	.	.	1	3	I	0.3
P. epiphylla	.	.	.	.	.	.	.	.	.	.	1	.	.	2	I	0.2
Plagiochila asplenioides	.	3	4	3	.	.	.	3	5	.	.	2	1	1	III	1.6
Preissia quadrata	3	.	.	.	.	.	.	.	1	.	.	.	3	3	II	0.7
Scapania aspera	.	.	.	.	.	.	.	3	1	.	.	.	1	.	II	0.4
Gyalecta jenensis	.	.	.	.	.	2	.	2	.	3	.	.	.	2	II	0.6
Solorina saccata	.	.	.	.	.	.	.	2	2	.	.	.	.	.	I	0.3
Total number of species (86)	11	15	12	21	8	18	15	21	16	15	22	15	22	24		

Mean number of species per relevé = 16.8.

ADDITIONAL SPECIES IN LIST

2. *Hypericum pulchrum* 2, *Sagina procumbens* 1, *Amphidium mougeotii* 6, *Saccogyna viticulosa* 1.
3. *Hymenophyllum wilsonii* 3, *Plagiochila spinulosa* 1.
4. *Polypodium vulgare* 2, *Hypnum cupressiforme* 3, *Rhytidiadelphus triquetrus* 3, *Lobaria scrobiculata* 1, *Sticta fuliginosa* 1.
5. *Rhynchostegiella tenella* 4.
6. *Asplenium adiantum-nigrum* 5, *Bellis perennis* 3, *Prunella vulgaris* 2, *Anomodon viticulosus* 3, *Bryum capillare* 2, *Porella platyphylla* 1, *Protoblastenia rupestris* 3.
8. *Breutelia chrysocoma* 4, *Metzgeria pubescens* 1.
9. *Primula vulgaris* 1, *Collema* sp. 3.
11. *Crepis paludosa* 2, *Gymnostomum aeruginosum* 4, *Heterocladium heteropterum* 2, *Mnium punctatum* 1.
12. *Anemone nemorosa* 2, *Campylium protensum* 1, *Pohlia wahlenbergii* 1, *Leiocolea muelleri* 2.
13. *Ranunculus acris* 3, *Saxifraga oppositifolia* 3, *Ditrichum flexicaule* 3, *Tritomaria quinquedentata* 1.
14. *Barbula ferruginascens* 2, *Distichium capillaceum* 4, *Radula aquilegia* 1, *R. lindbergiana* 2, *Metzgeria hamata* 1.

LOCALITIES

1. Bay River; 2. Red Burn; 3, 4. Sumerdale River; 5, 6. Rubha na h'Airde Glaise; 7. Camas Malag; 8. Ben Suardal; 9. Coille Gaireallach; 10. Tokavaig; 11, 12. Allt na Dunaiche; 13, 14. Coire Uaigneach, Blá Bheinn.

TABLE 4.30

Class: MONTIO-CARDAMINETEA
Order: MONTIO-CARDAMINETALIA
Alliance: Cardamino-Montion

Association	*Philonoto–Saxifragetum stellaris*										*Koenigia islandica–Carex demissa nodum*					*Anthelia julacea banks*		
	1	2	3	4	5	6	7	8			9	10	11	12		13	14	
Reference number	B67	B67	B67	B67	B68	B68	B68	B68			B68	B68	B67	B67		B68	B67	
Map Reference	026	123	124	021	070	106	075	072			076	034	128	133		078	058	
	370	440	446	536	490	449	490	490			490	495	450	456		490	455	
	305	606	606	212	533	699	542	537			542	542	617	627		542	246	
Altitude (feet)	450	1200	1300	1900	1550	1550	2050	1800			2050	2250	1700	2000		2050	1800	
Aspect (degrees)	43	0	0	315	90	90	270	135			270	270	270	0		270	0	
Slope (degrees)	.	1	.	.	.	.	.	3			5	8	5	.		.	.	
Cover (per cent)	100	100	100	100	100	100	100	100			60	60	40	30		100	100	
Plot area (square metres)	4	4	4	4	4	4	4	4	C	D	4	4	4	4	D	4	4	D
Selaginella selaginoides	.	.	1	1	.	.	.	.	II	0.3	.	.	.	.		.	.	
Anthoxanthum odoratum	.	2	.	.	4	.	.	.	II	0.8	.	.	.	.		.	.	
Deschampsia cespitosa	.	4	3	.	3	4	3	.	IV	2.1	5	3	3	5	4.0	4	3	3.5
Festuca ovina	.	1	5	.	.	.	.	.	II	0.8	.	.	.	.		.	.	
F. rubra	3	.	2	.	5	4	.	.	III	1.8	.	.	.	.		.	.	
Poa subcaerulea	.	.	3	.	3	2	.	2	III	1.3	.	.	.	.		.	.	
Carex echinata	1	.	.	.	3	.	.	3	II	0.9	.	.	.	.		3	.	1.5
C. demissa	.	.	2	.	2	.	3	.	II	0.9	3	4	4	3	3.5	4	.	2.0
C. nigra	.	.	.	+	.	.	3	4	II	1.0	.	.	4	.		3	.	1.5
Juncus articulatus	.	.	.	.	1	.	.	3	II	0.5	.	.	.	.		.	.	
J. biglumis	.	.	.	.	.	.	+	1	II	0.3	3	5	2	.	2.5	.	.	
J. bulbosus	.	.	.	.	.	.	.	2	I	0.3	.	3	3	.	1.5	1	.	0.5
J. squarrosus	.	.	.	.	.	.	.	+	I	0.1	.	.	2	.	0.5	.	.	
J. triglumis	.	.	.	.	.	.	4	3	II	0.9	4	4	4	3	3.8	.	.	
Alchemilla xanthochlora	.	.	3	.	.	.	.	+	II	0.5	.	.	.	.		.	.	
Bellis perennis	.	.	2	.	+	.	.	.	II	0.4	.	.	.	.		.	.	
Caltha palustris *	4	1	.	1	4	.	4	3	IV	2.1	.	.	.	.		.	.	
Cardamine flexuosa	.	1	1	.	4	3	.	2	IV	1.4	.	.	.	.		.	.	
Cerastium holosteoides	4	.	2	.	3	.	2	1	IV	1.5	.	.	.	.		.	1	0.5
Chrysosplenium oppositifolium	.	2	2	4	2	+	.	.	IV	1.4	.	.	.	.		.	.	
†*Cochlearia officinalis* agg.	.	.	.	.	.	.	3	.	I	0.4	.	1	.	.	0.3	.	.	
Epilobium alsinifolium	.	4	2	.	.	.	.	2	II	1.0	.	.	.	.		.	.	
E. anagallidifolium	.	.	3	.	2	4	.	3	III	1.5	.	.	.	.		.	.	
Euphrasia frigida	.	.	.	.	2	.	2	+	II	0.6	3	.	.	.	0.8	.	.	
Koenigia islandica	.	.	.	.	.	.	.	4	I	0.5	4	3	5	6	4.5	.	.	
Montia fontana ssp. *fontana*	6	6	5	6	7	4	.	5	V	4.9	.	.	.	.		.	.	
Pinguicula vulgaris	.	.	2	2	.	.	.	.	II	0.5	.	.	1	.	0.3	+	1	0.5
Prunella vulgaris	.	.	.	.	+	.	.	1	II	0.3	.	.	.	.		.	.	
Ranunculus acris	3	.	4	2	3	.	.	2	IV	1.8	.	3	.	.	0.8	2	.	1.0
R. flammula	.	.	.	.	3	3	.	.	II	0.8	.	.	.	.		1	.	0.5
Sagina procumbens	4	3	.	.	4	.	.	3	III	1.8	.	.	.	.		.	.	
S. saginoides	.	.	.	.	.	.	.	.			2	3	.	.	1.3	.	.	
Saxifraga stellaris	.	3	4	4	3	4	5	4	V	3.4	5	6	1	4	4.0	.	.	
Stellaria alsine	3	.	4	3	3	3	3	3	V	2.8	.	.	.	.		.	.	
Taraxacum officinale agg.	.	.	.	.	2	.	.	1	II	0.4	.	.	.	.		.	.	
Thalictrum alpinum	.	2	.	4	.	.	.	.	II	0.8	.	.	.	.		+	3	1.5
Acrocladium cuspidatum	4	2	4	3	3	.	1	.	IV	2.1	.	.	.	.		.	.	
A. sarmentosum	.	.	1	+	.	2	3	1	IV	1.0	5	4	5	.	3.5	5	.	2.5
Blindia acuta	.	2	.	.	.	.	.	.	I	0.3	6	5	6	8	6.3	.	.	
Bryum pseudotriquetrum	3	.	4	.	3	3	4	3	IV	2.5	.	.	.	.		.	.	
B. weigelii	.	.	.	+	4	5	.	3	III	1.6	.	.	.	.		.	.	
Cratoneuron filicinum	6	3	3	.	4	.	4	5	IV	3.1	.	.	.	.		.	.	
Dicranella palustris	.	4	4	5	+	5	4	5	V	3.5	.	3	.	.	0.8	.	.	
Drepanocladus exannulatus	.	.	.	.	.	7	3	+	II	1.4	.	.	.	.		.	.	
D. revolvens	.	.	.	2	.	.	.	1	I	0.4	.	.	3	.	0.8	.	.	
Mnium punctatum	.	.	1	.	3	.	.	.	II	0.5	.	.	.	.		.	.	
M. rugicum	.	.	1	.	.	.	.	3	II	0.5	.	.	.	.		.	.	
Oncophorus virens	.	.	.	.	.	.	2	+	II	0.4	.	.	.	.		.	.	
Philonotis fontana	8	8	8	7	7	6	7	9	V	7.5	.	4	.	.	1.0	.	2	1.0
‡*Sphagnum subsecundum*	.	.	.	3	+	.	+	1	III	0.8	3	.	.	.	0.8	5	2	3.5
Anthelia julacea	.	.	.	.	.	.	.	.			.	.	.	.		9	8	8.5
Chiloscyphus pallescens	.	5	3	2	+	.	.	.	III	1.4	.	.	.	.		.	.	
Marsupella aquatica	.	.	.	.	.	.	+	.	I		4	.	.	.	1.0	+	2	1.0
Scapania undulata	.	2	.	2	5	4	2	2	IV	2.1	3	8	2	3	4.0	+	2	1.0
Solenostoma cordifolium	.	7	.	4	+	.	4	4	IV	2.5	.	.	.	.		.	.	
Total number of species (89)	18	20	28	23	37	19	27	42			13	15	15	10		15	13	

Mean number of species per relevé = 28.8.
Total number of species in association = 80.

Mean number of species per relevé = 13.3.
Total number of species in *nodum* = 26.

Total number of species = 21.

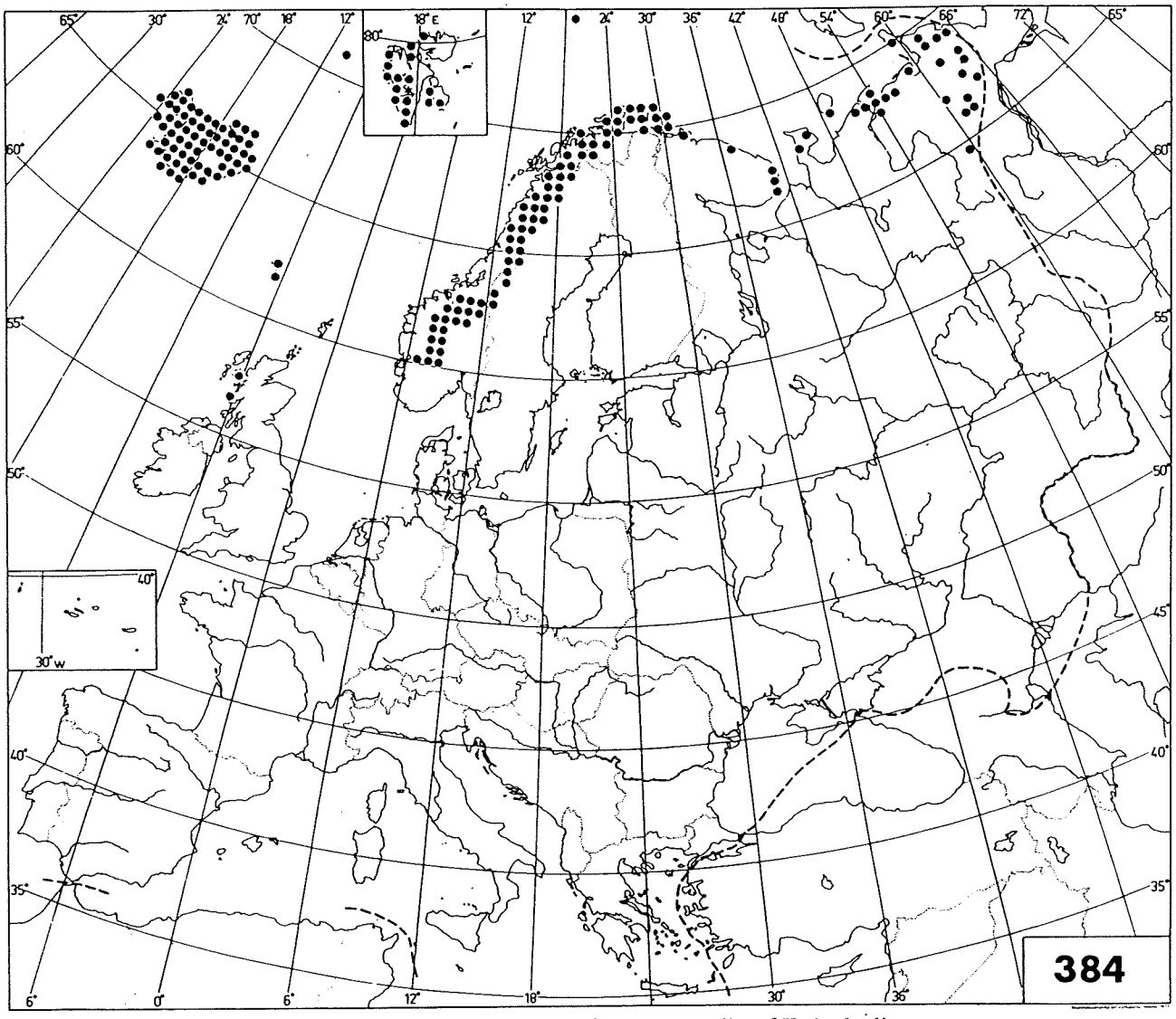
* ssp. *minor* in 1, 2, 4, 5, 7, and 8. † ssp. *alpina* in 7 and 10. ‡ var. *auriculatum* in 4, 5, 7, 8, 9, 13, and 14.

ADDITIONAL SPECIES IN LIST

1. *Equisetum palustre* 1, *Trifolium repens* 1, *Mnium undulatum* 2, *Rhytidiadelphus squarrous* 2, *Sphagnum recurvum* 1, *Conocephalum conicum* 3.
2. *Pellia* sp. 2.
3. *Lotus corniculatus* 3.
4. *Geum rivale* 1, *Brachythecium plumosum* 5, *Cratoneuron commutatum* 1.
5. *Carex flacca* 2, *Viola riviniana* 2, *Cinclidium stygium* 3, *Sphagnum plumulosum* 1.
6. *Agrostis canina* 3, *Viola palustris* 1.
7. *Carex panicea* 1, *Acrocladium trifarium* +, *Scorpidium scorpioides* 5, *Riccardia pinguis* 1, *Scapania paludosa* 3, *Tritomaria polita* +.
8. *Festuca vivipara* 2, *Poa trivialis* 1, *Myosotis scorpioides* +, *Thymus drucei* 2, *Anomobryum filiforme* 1, *Pohlia wahlenbergii* var. *glacialis* 2.
11. *Carex dioica* 1.
12. *Deschampsia alpina* 2, *Luzula spicata* 3, *Rhacomitrium heterostichum* 3.
13. *Plantago maritima* 3.
14. *Saussurea alpina* 2, *Campylopus atrovirens* 1, *Polytrichum alpinum* 3, *Marsupella emarginata* 2.

LOCALITIES

1. Carbost; 2, 3. Beinn an Laoigh; 4. Blà Bheinn; 5. Bealach Beag; 6. Sgùrr Mor; 7, 8, 9, 10, 13. The Storr; 11, 12. Beinn Edra; 14. Coire na Creiche.



Koenigia islandica

★ = type locality of **K. hadacii**

TABLE 4.31

Class	MONTIO-CARDAMINETEA														
Order	MONTIO-CARDAMINETALIA														
Alliance	Cratoneurion commutati														
Association	*Cratoneuron commutatum–Saxifraga aizoides nodum*					*Saxifragetum aizoidis*									
	1	2	3	4		5	6	7	8	9	10	11			
Reference Number	B68 090	B68 091	B67 007	B68 232		B67 089	B67 016	B67 018	B67 019	B68 237	B68 239	B68 109			
Map Reference	518 604	518 604	560 217	557 216		520 198	542 217	540 215	538 214	539 216	537 213	443 706			
Altitude (feet)	75	75	250	350		650	1100	1300	1400	1500	1600	1600			
Aspect (degrees)	0	0	0	0		225	45	45	0	315	0	45			
Slope (degrees)	85	85	90	80		70	60	70	70	75	75	70			
Cover (per cent)	100	100	100	100		100	100	100	100	100	100	75			
Plot area (square metres)	4	4	4	4	D	4	4	4	4	4	4	4	C	D	
Asplenium viride	.	.	.	.		+	3	.	.	3	.	+	III	1.1	
Cystopteris fragilis	.	.	.	.		.	3	3	.	3	2	2	IV	1.9	
Selaginella selaginoides	.	3	.	.	0.8	2	+	2	3	3	3	3	V	2.4	
Anthoxanthum odoratum	.	.	.	.		.	.	1	.	.	2	.	II	0.4	
Deschampsia cespitosa	.	.	.	.		3	3	3	2	3	4	.	V	2.6	
Festuca ovina	3	.	.	.	0.8	3	.	.	.	.	.	3	II	0.9	
F. rubra	4	3	3	3	3.3	3	4	2	+	1	2	.	V	1.9	
F. vivipara	.	2	.	1	0.8	.	.	.	1	.	3	3	III	1.0	
Carex flacca	.	.	.	.		2	.	.	3	.	3	4	III	1.7	
C. panicea	.	.	.	.		.	.	.	.	2	2	.	III	0.6	
C. pulicaris	.	.	.	2	0.5	3	.	.	2	4	2	3	IV	2.0	
Alchemilla alpina	.	.	.	.		1	4	.	4	1	.	.	III	1.4	
A. glabra	.	.	.	.		2	3	2	3	3	4	3	V	2.9	
Angelica sylvestris	.	2	.	.	0.5	.	2	.	.	2	4	2	III	1.4	
Chrysosplenium oppositifolium	3	4	.	.	1.8	.	.	4	.	.	.	.	I	0.6	
Crepis paludosa	2	3	.	.	1.3	.	.	.	.	.	2	.	I	0.3	
Euphrasia officinalis agg.	.	3	.	.	0.8	.	.	.	.	.	1	2	II	0.4	
Geum rivale	.	.	.	.		.	1	.	.	1	2	.	III	0.6	
Hypericum pulchrum	.	.	1	2	0.8	2	.	.	.	.	.	.	I	0.3	
Leontodon autumnalis	.	.	.	1	0.3	.	.	.	.	1	.	.	I	0.1	
Oxyria digyna	.	.	.	.		.	1	+	.	1	3	.	III	0.9	
Parnassia palustris	.	.	.	.		.	1	2	.	2	.	.	III	0.7	
Pinguicula vulgaris	1	2	3	4	2.5	2	2	.	3	2	2	3	V	2.0	
Ranunculus acris	.	.	.	.		1	2	3	1	3	3	.	V	1.9	
Saussurea alpina	.	.	.	.		.	.	.	.	.	2	2	II	0.6	
Saxifraga aizoides	4	5	5	6	5.0	7	8	8	7	8	8	7	V	7.6	
S. oppositifolia	.	.	.	.		4	3	3	5	6	1	2	V	3.4	
Sedum rosea	.	.	.	2	0.5	1	+	.	2	4	4	.	IV	1.7	
Thalictrum alpinum	.	.	.	.		.	.	.	2	+	2	4	III	1.3	
Thymus drucei	.	.	2	.	0.5	2	.	.	.	.	.	.	I	0.3	
Trollius europaeus	.	.	.	.		.	.	.	1	.	3	.	II	0.6	
Acrocladium cuspidatum	.	.	.	.		2	.	3	.	1	.	.	III	0.9	
Amphidium mougeotii	.	.	.	.		.	2	.	.	.	4	.	II	0.9	
Anoectangium aestivum	.	.	.	3	0.8	.	2	2	.	4	2	1	IV	1.6	
Barbula fallax	.	.	.	.		3	.	.	.	.	1	.	II	0.6	
Blindia acuta	.	.	2	3	1.3	3	.	3	3	3	5	3	V	2.9	
Breutelia chrysocoma	.	.	1	1	0.5	.	.	.	5	.	.	.	I	0.7	
Bryum pseudotriquetrum	.	1	3	2	1.5	1	2	.	.	4	1	3	IV	1.6	
Campylium stellatum	.	.	.	4	1.0	.	.	4	.	.	.	.	I	0.6	
Cratoneuron commutatum	9	9	9	8	8.8	4	.	2	.	1	.	1	III	1.1	
Ctenidium molluscum	.	2	3	4	2.3	5	5	4	.	5	4	3	IV	3.7	
Dichodontium pellucidum	.	.	1	+	0.3	.	.	.	.	.	.	.			
Ditrichum flexicaule	.	.	.	.		.	.	2	.	.	.	1	II	0.4	
Drepanocladus revolvens	2	2	3	2	2.3	.	.	.	.	3	.	.	I	0.4	
Fissidens adianthoides	.	.	.	.		.	.	.	.	.	3	2	II	0.7	
F. cristatus	.	.	2	.	0.5	.	.	.	.	2	.	.	I	0.3	
Gymnostomum aeruginosum	5	2	.	.	1.8	.	.	.	.	2	.	1	II	0.4	
G. recurvirostrum	.	1	2	3	1.5	.	.	.	.	2	.	.	I	0.3	
Mnium punctatum	.	.	2	.	0.5	.	.	2	.	.	1	.	II	0.4	
Orthothecium rufescens	.	.	.	.		.	5	3	4	6	3	8	V	4.1	
Tortella tortuosa	.	.	.	3	0.8	2	.	.	.	3	.	.	II	0.7	
Conocephalum conicum	.	.	1	1	0.5	.	.	.	.	.	.	.			
Leiocolea muelleri	.	.	.	.		.	2	.	.	1	.	.	II	0.4	
Pellia epiphylla	.	3	2	.	1.3	.	.	.	.	.	1	.	I	0.1	
Plagiochila asplenioides	.	.	.	.		.	.	.	.	3	1	.	II	0.6	
Plectocolea hyalina	.	.	.	1	0.3	.	.	.	.	.	1	.	I	0.1	
Preissia quadrata	4	.	.	.	1.0	1	2	.	.	3	3	+	IV	1.4	
Riccardia pinguis	3	3	1	1	2.0	1	2	.	.	1	4	1	IV	1.3	
R. sinuata	1	.	.	.	0.3	.	.	.	.	.	1	.	I	0.1	
Total number of species (89)	13	19	19	26		30	24	22	20	45	43	28			

Mean number of species per relevé = 19.3.
Total number of species in *nodum* = 43.

Mean number of species per relevé = 30.3.
Total number of species in association = 81.

ADDITIONAL SPECIES IN LIST

1. *Valeriana officinalis* 3.
2. *Rhinanthus minor* agg. 1, *Philonotis calcarea* 2.
3. *Scapania undulata* 2.
4. *Carex hostiana* 1, *Linum catharticum* +, *Dicranum scoparium* 1, *Solenostoma triste* +.
5. *Schoenus nigricans* 2, *Lotus corniculatus* 1, *Barbula ferruginascens* 2, *Eucladium verticillatum* 1, *Neckera crispa* 3.
7. *Cololejeunea calcarea* 1.
8. *Potentilla erecta* 1, *Viola riviniana* 2.
9. *Polystichum lonchitis* 3, *Anemone nemorosa* 3, *Filipendula ulmaria* 2, *Rumex acetosa* 4, *Succisa pratensis* 1, *Pohlia cruda* 1, *Scapania aspera* 2, *Solenostoma sphaerocarpoidea* 1, *Tritomaria quinquedentata* 1.
10. *Cochlearia officinalis* agg. 1, *Dicranella palustris* 1, *Philonotis fontana* 1, *Thuidium tamariscinum* 1, *Leiocolea bantriensis* 2.
11. *Carex lepidocarpa* 5, *Silene acaulis* 1.

LOCALITIES

1, 2. Lealt; 3, 4. Allt na Dunaiche; 5. S.W. spur of Blà Bheinn; 6, 7, 8, 9, 10. Coire Uaigneich, Blà Bheinn; 11. Sgùrr Mor.

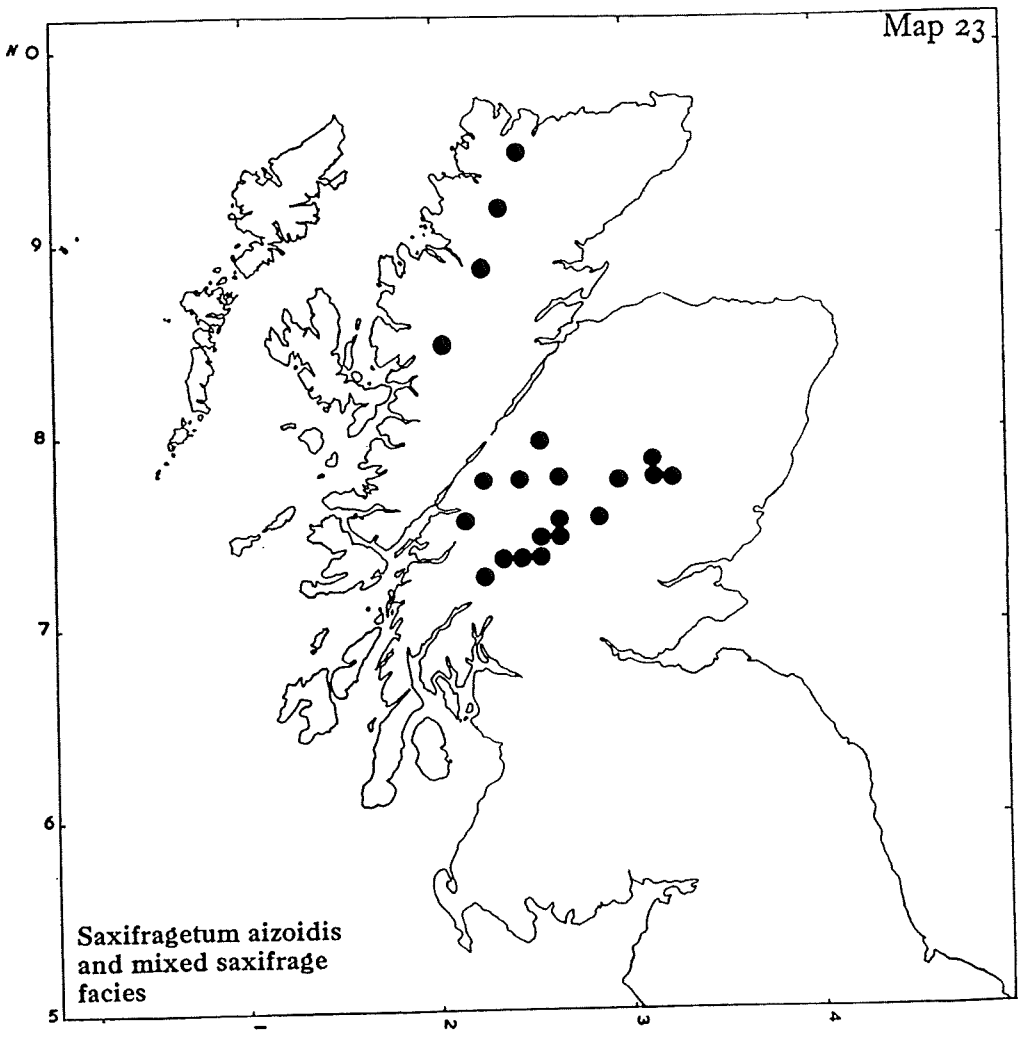

Map 23
N O
9
8
7
6
5
1
2
3
4
Saxifragetum aizoidis
and mixed saxifrage
facies

TABLE 4.39

Class	SALICETEA HERBACEAE
Order	DESCHAMPSIETO–MYRTILLETALIA
Alliance	**Nardeto–Caricion bigelowii**
Association	*Nardus stricta–Vaccinium myrtillus*

Facies	*Typicum*									*Vaccinium–rich*			
	1	2	3	4	5	6	7	8	9	10	11		
Reference number	B68 336	B67 001A	B67 001B	B67 001C	B68 243	B68 244	B68 082	B68 083	B69 068	B67 067	B68 066		
Map reference	505 284	536 211	536 211	536 211	529 218	330 216	491 547	489 548	761 223	761 223	760 223		
Altitude (feet)	1800	1900	1900	1850	2900	2800	1850	2000	2250	2300	2300		
Aspect (degrees)	0	45	45	45	115	90	0	0	0	0	340		
Slope (degrees)	10	5	5	5	15	10	5	5	5	5	5		
Cover (per cent)	100	100	100	100	100	100	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	4	C	D
Calluna vulgaris	1	2	+	.	.	.	2	3	.	.	.	III	0.8
Salix herbacea	.	.	.	.	.	.	.	.	.	3	3	I	0.5
Vaccinium myrtillus	.	2	3	3	4	3	3	2	4	8	7	V	3.5
Blechnum spicant	.	.	.	.	3	2	.	.	.	.	.	I	0.5
Lycopodium alpinum	4	2	3	2	.	4	2	2	.	2	3	V	2.2
L. selago	3	3	4	5	3	.	3	.	1	2	1	V	2.3
Agrostis tenuis	3	.	.	.	.	.	3	2	3	.	.	II	1.0
Festuca ovina	.	.	.	.	.	.	.	.	4	.	1	I	0.5
F. vivipara	.	.	.	.	.	3	4	.	2	2	2	III	1.2
Nardus stricta	8	9	8	7	9	8	9	8	6	4	4	V	7.3
Carex bigelowii	3	3	3	4	5	3	4	4	3	3	3	V	3.5
C. pilulifera	3	.	.	.	4	3	3	2	.	.	.	III	1.4
Luzula sylvatica	.	.	.	.	.	.	.	.	3	2	1	II	0.5
Alchemilla alpina	.	1	.	.	3	.	.	.	3	1	.	II	0.7
Galium saxatile	.	2	2	3	4	2	4	4	6	4	2	V	3.0
Polygala serpyllifolia	1	.	.	.	.	1	.	.	.	.	.	I	0.2
Potentilla erecta	3	1	+	3	3	4	.	4	2	2	3	V	2.4
Thymus drucei	.	2	.	.	.	.	4	.	.	.	.	I	0.5
Dicranum fuscescens	1	.	.	2	.	2	.	1	.	2	.	III	0.7
Hylocomium splendens	.	1	2	.	.	1	4	4	3	3	.	IV	1.6
Mnium hornum	.	.	.	.	.	.	2	.	2	.	.	I	0.4
Pleurozium schreberi	4	.	.	.	.	1	.	.	.	.	.	I	0.5
Polytrichum alpinum	.	2	3	3	.	.	3	.	3	5	4	IV	2.1
Rhacomitrium lanuginosum	5	6	5	7	5	3	3	5	.	4	5	V	4.4
Rhytidiadelphus loreus	2	4	3	3	.	.	4	3	8	4	4	V	3.2
Sphagnum palustre	.	.	1	.	.	.	.	.	1	.	1	I	0.3
Anastrepta orcadensis	.	.	.	.	.	.	.	.	2	3	3	II	0.7
Ptilidium ciliare	.	.	.	.	.	.	.	.	2	2	1	II	0.4
Cetraria islandica	2	3	2	3	4	3	2	2	.	1	.	V	2.0
Cladonia arbuscula	2	.	.	.	1	.	.	.	.	.	.	I	0.3
C. uncialis	3	2	3	2	3	2	+	1	.	2	2	V	1.9
Total number of species (54)	18	18	18	13	15	17	21	17	19	21	24		

Mean number of species per relevé = 18.3.

ADDITIONAL SPECIES IN LIST

1. *Trichophorum cespitosum* 4, *Succisa pratensis* 2.
2. *Polygonum viviparum* 1, *Sphagnum plumulosum* 2.
3. *Campylopus atrovirens* 2, *Rhytidiadelphus squarrosus* 3, *Anthelia julacea* 3.
5. *Molinia caerulea* 1, *Carex panicea* 2.
6. *Vaccinium vitis-idaea* 2.
7. *Viola riviniana* 2, *Breutelia chrysocoma* 3, *Sphagnum tenellum* 2
8. *Gnaphalium supinum* 4, *Hypnum cupressiforme* var. *ericetorum* 2.
9. *Deschampsia cespitosa* 5.
10. *Diplophyllum albicans* 1.
11. *Empetrum hermaphroditum* 2, *Polytrichum piliferum* 1, *Barbilophozia barbata* +, *Lophozia ventricosa* + *Mylia taylori* 1, *Scapania gracilis* 1.

LOCALITIES

1. Coire na Sgairde; 2, 3, 4. Coire Uaigneach; 5, 6. Blà Bheinn; 7, 8. The Storr; 9, 10, 11. Sgùrr na Coinnich.

TABLE 4.41

Class	NARDO-CALLUNETEA										
Order	NARDETALIA										
Alliance	**Nardo-Galion saxatilis**										
Association	*Nardo-Juncetum squarrosi*										
	1	2	3	4	5	6	7	8	9		
Reference Number	B67	B68	B68	B68	B68	B68	B67	B68	B68		
	130	103	073	084	170	077	126	165	104		
Map reference	455	445	492	488	225	490	443	220	445		
	616	690	538	548	421	542	603	445	690		
Altitude (feet)	1750	1650	2100	1650	1600	2050	1500	1500	1650		
Aspect (degrees)	270	135	270	315	.	270	.	.	135		
Slope (degrees)	3	10	5	5	.	5	.	.	5		
Cover (per cent)	100	100	100	100	100	100	100	100	100		
Plot area (square metres)	4	4	4	4	4	4	4	4	4	C	D
Calluna vulgaris	.	2	4	.	.	.	2	2	.	III	1.1
Empetrum nigrum	.	.	.	.	.	.	2	1	3	II	0.7
Vaccinum myrtillus	3	.	.	.	1	.	2	+	.	III	0.8
Lycopodium alpinum	3	.	.	.	.	.	3	.	+	II	0.8
L. selago	3	.	.	.	4	.	.	.	.	II	0.8
Selaginella selaginoides	.	.	2	2	.	.	.	.	.	II	0.4
Agrostis tenuis	3	5	3	.	3	.	.	.	.	III	1.6
Anthoxanthum odoratum	.	2	.	3	.	.	.	.	.	II	0.6
Deschampsia flexuosa	.	.	3	3	.	3	.	.	.	II	1.0
Festuca vivipara	.	4	5	4	2	.	.	.	2	III	1.9
Molinia caerulea	.	.	.	.	.	5	.	.	3	II	0.9
Nardus stricta	8	8	8	7	8	4	3	5	.	V	5.7
Carex binervis	.	3	4	.	.	.	.	.	.	II	0.8
C. echinata	.	2	.	.	.	3	.	.	4	II	1.0
C. panicea	.	3	.	.	.	.	1	.	2	II	0.7
C. pilulifera	2	2	3	1	.	.	.	.	.	III	0.9
Eriophorum angustifolium	.	.	.	.	.	.	.	2	4	II	0.7
Juncus kochii	.	2	.	.	.	.	.	.	2	II	0.4
J. squarrosus	2	5	6	7	7	8	8	8	8	V	6.6
Galium saxatile	3	+	3	4	1	4	3	4	3	V	2.9
Polygala serpyllifolia	1	+	2	.	.	.	.	.	1	III	0.6
Potentilla erecta	3	3	4	3	3	.	3	1	3	V	2.6
Thymus drucei	.	.	3	3	.	3	.	.	.	II	1.0
Viola palustris	.	3	.	.	.	.	.	.	2	II	0.6
V. riviniana	.	.	1	3	2	1	.	.	.	III	0.8
Hylocomium splendens	2	4	3	4	.	.	.	.	1	III	1.6
Polytrichum alpinum	4	.	.	2	2	3	4	1	.	IV	1.8
Rhacomitrium lanuginosum	2	.	6	.	8	+	8	3	.	IV	3.1
Rhytidiadelphus loreus	.	.	.	4	.	.	3	5	.	II	1.3
R. squarrosus	.	3	2	2	.	.	.	.	.	II	0.8
Sphagnum capillaceum	.	.	.	.	.	4	1	3	3	III	1.2
S. papillosum	.	3	.	.	3	8	4	7	7	III	3.6
S. plumulosum	.	.	.	.	2	3	.	2	.	II	0.8
Thuidium tamariscinum	.	3	.	3	.	.	.	.	.	II	0.7
Cladonia uncialis	.	.	.	.	1	.	4	.	.	II	0.6
Total number of species (65)	14	20	20	22	16	16	21	22	18		

Mean number of species per relevé = 18.8.

ADDITIONAL SPECIES IN LIST

1. *Festuca ovina* 3.
2. *Cerastium holosteoides* +.
3. *Alchemilla alpina* +, *Gentianella campestris* 1.
4. *Luzula campestris* 4, *Taraxacum officinale* agg. +, *Breutelia chrysocoma* +, *Ctenidium molluscum* +, *Pseudoscleropodium purum* 3, *Frullania tamarisci* +.
5. *Campylopus atrovirens* 2, *Sphagnum tenellum* 3.
6. *Carex curta* 3, *Calypogeia muellerana* 1, *Riccardia pinguis* 1.
7. *Eriophorum vaginatum* 2, *Pleurozium schreberi* 1, *Mylia taylori* 1, *Scapania gracilis* 1, *Cladonia arbuscula* 1.
8. *Luzula multiflora* 1, *L. sylvatica* 2, *Ranunculus flammula* 1, *Aulacomnium palustre* 4, *Campylopus flexuosus* 1, *Polytrichum commune* 2, *Anastrepta orcadensis* +, *Ptilidium ciliare* +.
9. *Pinguicula vulgaris* 1, *Sphagnum recurvum* 2.

LOCALITIES

1, 7. Beinn Edra; 2, 9. Sgùrr Mor; 3, 4, 6. The Storr; 5. Healaval Bheag; 8. Healaval Mhor.

TABLE 4.36

Class: CARICETEA CURVULAE
Order: CARICETALIA CURVULAE
Alliance: **Arctostaphyleto–Cetrarion nivalis**

Association: *Caricetо–Rhacomitretum lanuginosi*

Facies	*Typicum*									*Cushion-herb*					*Festuca ovina–Luzula spicata nodum*				
	1	2	3	4	5	6	7	8	9	10	11	12	13		14	15	16	17	
Reference Number	B68	B67	B68	B68	B67	B67	B68	B68	B68	B67	B68	B67	B68		B68	B67	B68	B68	
	338	125	169	080	022	065	344	343	241	072	079	134	074		337	127	081	242	
Map Reference	506	443	224	490	535	753	517	516	532	763	490	456	496		506	455	490	529	
	278	603	422	547	211	223	303	302	215	223	545	627	542		278	610	542	218	
Altitude (feet)	1500	1500	1600	1750	2000	2000	2200	2400	2500	2400	1850	2000	2300		1500	1600	2000	3000	
Aspect (degrees)	0	.	315	340	315	.	.	.	90	45	315	270	270		.	270	315	.	
Slope (degrees)	3	.	3	4	3	.	.	.	3	5	8	5	8		.	3	3	.	
Cover (per cent)	100	100	100	100	100	100	100	100	100	100	100	100	100		30	25	20	25	
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	4	4	4	C D	4	4	4	4	D
Empetrum hermaphroditum	.	3	.	.	.	.	.	.	.	2	.	.	.	I 0.4	.	.	.	.	
Salix herbacea	2	4	2	3	.	4	.	.	3	3	3	4	4	IV 2.5	3	6	4	4	4·3
Vaccinium myrtillus	3	2	2	.	4	3	3	4	2	4	.	3	+	V 2.4	.	.	.	3	
V. vitis-idaea	.	.	4	.	.	2	.	1	.	2	.	.	.	II 0.7	.	2	.	.	0.5
Lycopodium alpinum	.	4	.	.	4	+	.	.	.	.	.	.	.	II 0.7	.	.	.	.	
L. selago	.	2	2	.	3	1	.	.	.	2	.	1	.	III 0.8	.	.	.	.	
Selaginella selaginoides	1	.	.	.	.	.	.	.	.	.	1	.	3	II 0.4	.	.	.	.	
Agrostis canina	.	.	3	.	.	.	.	.	4	.	.	.	.	I 0.5	.	2	.	.	0.5
A. tenuis	.	.	.	.	.	.	.	.	.	.	4	3	4	II 0.8	.	.	.	.	
Deschampsia flexuosa	2	2	3	2	4	2	3	2	4	.	.	.	.	IV 2.0	4	2	3	3	3.0
Festuca ovina	.	.	3	5	.	.	.	3	3	2	5	3	6	IV 2.3	6	5	6	6	5.8
F. vivipara	4	3	4	3	3	2	4	4	4	3	4	4	5	V 3.6	3	3	5	6	4·3
Nardus stricta	2	3	.	+	.	.	+	.	.	.	.	.	.	II 0.5	.	.	.	.	
Carex bigelowii	4	4	5	6	4	4	4	4	6	4	6	3	.	V 4.1	.	.	.	.	
C. pilulifera	.	4	3	.	1	1	1	2	3	.	.	.	.	III 1.2	+	.	.	.	0.3
Luzula spicata	.	.	.	.	.	.	.	.	.	.	.	.	.		2	3	2	+	2.0
L. sylvatica	.	.	.	.	.	.	1	.	1	.	.	.	.	I 0.2	.	.	.	.	
Alchemilla alpina	5	+	.	2	4	2	3	5	4	1	4	3	5	V 3.0	6	4	3	5	4·5
Antennaria dioica	.	.	.	.	2	2	.	.	.	.	.	2	.	II 0.5	+	.	.	.	0.3
Armeria maritima	.	.	.	.	.	.	.	.	.	5	.	.	3	I 0.6	.	.	.	.	
Cherleria sedoides	.	.	.	.	.	.	.	.	.	.	1	4	2	II 0.5	.	.	.	.	
Euphrasia officinalis agg.	1	.	.	.	.	.	.	.	.	.	.	.	2	I 0.2	2	.	.	.	0.5
Galium saxatile	3	2	3	5	2	4	4	4	2	2	3	4	3	V 3.2	3	3	.	1	1.8
Gnaphalium supinum	.	.	.	2	.	.	.	.	.	.	.	+	.	I 0.2	.	.	.	.	
Plantago maritima	.	.	.	.	.	.	.	.	.	.	.	.	1	I 0.1	1	.	.	.	0.3
Polygonum viviparum	.	.	.	.	.	.	.	.	.	2	4	5	4	II 1.2	1	.	.	.	0.3
Potentilla erecta	2	3	1	.	4	1	.	2	3	.	3	2	4	IV 1.9	.	.	4	.	1.0
Silene acaulis	.	.	.	.	.	.	.	.	.	.	2	3	2	II 0.5	.	.	.	.	
Thalictrum alpinum	.	.	.	.	.	.	.	.	.	.	2	.	1	I 0.2	.	.	.	.	
Thymus drucei	4	2	.	4	.	2	.	.	4	.	4	3	4	IV 2.1	3	.	4	3	2.5
Viola riviniana	1	1	2	1	.	.	.	1	2	.	2	2	.	IV 0.9	.	.	1	.	0.3
Andreaea alpina	.	.	1	.	.	.	.	.	1	.	1	.	.	II 0.2	.	2	2	1	1.3
Aulacomnium turgidum	.	.	.	.	.	.	.	.	.	.	2	.	3	I 0.4	.	.	.	.	.
Campylopus flexuosus	.	.	.	.	.	1	.	.	.	.	.	.	.	I 0.1	.	.	.	.	
Dicranum fuscescens	.	1	.	.	.	2	.	.	.	2	.	2	.	II 0.5	.	.	.	.	
D. scoparium	.	.	.	.	.	1	1	1	.	.	.	.	1	II 0.3	.	.	.	.	
Hylocomium splendens	.	.	.	.	.	.	.	1	.	.	+	.	.	I 0.2	.	.	.	.	
**Hypnum cupressiforme*	4	.	.	.	.	.	1	.	.	.	.	1	.	II 0.5	.	.	.	.	
Oligotrichum hercynicum	.	.	.	.	.	.	.	.	.	.	.	.	.		2	3	+	4	2.5
Pleurozium schreberi	2	.	.	.	.	.	.	1	.	.	.	.	3	I 0.5	.	.	.	.	
Polytrichum alpinum	.	2	.	.	3	1	1	+	3	2	1	2	+	IV 1.3	.	1	.	1	0.5
P. piliferum	1	.	2	3	1	2	1	2	1	.	+	.	3	IV 1.3	1	2	.	3	1.5
Rhacomitrium fasciculare	.	.	+	.	.	.	.	.	3	.	.	.	4	II 0.6	.	.	.	.	
†*R. heterostichum*	.	.	.	.	.	.	.	.	1	.	.	1	.	I 0.2	.	3	2	.	1.3
R. lanuginosum	8	9	9	9	9	9	9	9	9	9	8	8	7	V 8.6	2	6	6	7	5.3
Rhytidiadelphus loreus	1	.	.	.	.	1	2	3	.	2	.	2	2	III 1.0	.	.	.	.	.
Diplophyllum albicans	.	.	+	.	1	.	.	.	.	.	.	1	.	II 0.2	.	.	.	.	
Nardia scalaris	1	.	.	1	.	.	1	.	.	.	.	.	.	II 0.2	.	.	1	.	0.3
Cetraria islandica	.	.	.	3	.	.	.	.	1	1	.	.	.	II 0.4	.	.	.	.	
Cladonia impexa	.	.	.	.	1	.	.	.	.	2	.	.	.	I 0.2	.	.	.	.	
C. rangiferina	.	.	.	.	.	.	.	.	.	1	.	1	.	I 0.2	.	.	.	.	
C. unicialis	1	5	+	.	2	2	1	1	2	3	.	3	1	V 1.7	.	2	.	.	0.5
Total number of species (70)	20	20	19	15	17	24	16	21	22	21	22	26	28		18	17	17	18	

Mean number of species per relevé = 20.8.
Total number of species in association = 58.

Mean number of species per relevé = 17.5.
Total number of species in *nodum* = 36.

* var. *ericetorum* in 1 and 7. var. *lacunosum* in 12. † var. *gracilescens* in 9, 15, and 16.

ADDITIONAL SPECIES IN LIST

2. *Rhacomitrium canescens* +.
5. *Polygala serpyllifolia* 2.
8. *Anthoxanthum odoratum* 2.
9. *Blechnum spicant* 2.
10. *Sphaerophorus globosus* 1.
11. *Alchemilla vestita* 3.
13. *Luzula campestris* 2, *Cerastium holosteoides* 2.
14. *Solidago virgaurea* +, *Succisa pratensis* 2.
15. *Anthelia juratzkana* +.
16. *Cerastium arcticum* +, *Koenigia islandica* +, *Anthelia julacea* +.
17. *Juncus trifidus* 5, *Conostomum tetragonum* 2, *Tetraplodon mnioides* +, *Stereocaulon vesuvianum* 3.

LOCALITIES

1, 14. Beinn Dearg; 2. Beinn Laoigh; 3. Healaval Bheag; 4, 11, 13, 16. The Storr; 5, 9, 17. Blà Bheinn; 6, 10. Sgùrr na Coinnich; 7, 8. Sgùrr Mhair; 12, 15. Beinn Edra.

TABLE 4.37

Class: CARICETEA CURVULAE
Order: CARICETALIA CURVULAE
Alliance: Arctostaphyleto–Cetrarion nivalis

Association	*Rhacomitreto–Callunetum*												*Juniperus nana nodum*				
	1	2	3	4	5	6	7	8	9	10			11	12	13	14	
Reference Number	B68	B68	B67	B68	B68	B68	B68	B68	B67	B68			B68	B68	B68	B67	
	328	324	024	166	167	168	335	334	064	342			341	339	340	056	
Map Reference	576	524	552	216	216	225	505	505	753	520			515	514	515	451	
	012	183	210	429	429	423	284	285	222	285			280	272	273	248	
Altitude (feet)	500	600	1100	1150	1200	1200	1300	1350	1950	2000			1700	1900	2000	2200	
Aspect (degrees)	225	225	.	45	45	315	.	.	270	270			.	180	.	.	
Slope (degrees)	5	5	.	3	4	10	.	.	5	5			.	5	.	.	
Cover (per cent)	80	60	50	60	70	100	100	80	100	100			100	100	100	100	
Plot area (square metres)	4	4	4	4	4	4	4	4	4	4	C	D	4	4	4	4	D
Calluna vulgaris	7	8	7	7	7	8	7	8	7	6	V	7.2	5	3	3	.	2.8
Empetrum hermaphroditum	.	.	2	.	.	3	.	.	2	4	II	1.1	2	1	5	3	2.3
Erica cinerea	3	3	.	2	2	1	.	.	.	.	III	1.1	1	.	.	.	0.8
Juniperus communis ssp. *nana*	.	.	.	.	.	.	.	.	.	.			9	8	7	8	8.0
Salix herbacea	.	.	.	.	.	.	4	.	.	.	I	0.4	.	.	3	+	1.0
Vaccinium myrtillus	.	.	.	.	.	3	3	.	2	2	II	1.0	3	1	2	2	2.0
V. vitis-idaea	.	.	.	.	.	.	.	.	.	2	I	0.2	.	2	.	.	0.5
Lycopodium alpinum	.	.	.	.	.	.	.	.	.	.			.	.	1	2	0.8
L. selago	.	.	2	2	2	.	2	.	.	1	III	0.9	.	2	2	2	1.5
Agrostis canina	2	2	.	4	3	4	3	2	3	.	IV	2.3	.	.	.	.	
Deschampsia flexuosa	.	.	.	.	.	1	.	.	.	.	I	0.1	3	2	3	3	2.8
Festuca ovina	.	2	.	4	3	3	.	.	2	3	III	1.7	.	.	.	.	
F. vivipara	3	4	3	3	4	+	5	6	2	4	V	3.5	3	3	2	3	2.8
Molinia caerulea	3	2	.	.	.	.	.	.	.	.	I	0.5	.	.	.	.	
Nardus stricta	1	.	.	.	.	4	2	.	.	.	II	0.7	.	.	3	.	0.8
Carex bigelowii	.	.	3	3	4	.	4	3	2	3	IV	2.2	2	.	4	2	2.0
C. binervis	3	.	.	.	.	.	.	.	.	.	I	0.3	.	.	+	.	0.3
C. pilulifera	.	.	.	3	3	3	4	4	.	2	III	1.9	.	3	.	.	0.8
Trichophorum cespitosum	2	3	3	3	.	.	.	2	.	.	III	1.3	.	.	1	1	0.5
Alchemilla alpina	.	.	.	.	.	.	2	.	.	3	I	0.5	3	2	2	.	1.8
Antennaria dioica	1	2	3	2	2	.	3	3	3	.	IV	1.9	1	2	.	.	0.8
Euphrasia micrantha	1	3	.	1	1	1	.	2	.	.	III	0.9	1	.	.	.	0.3
Galium saxatile	.	.	.	.	.	3	1	.	.	3	II	0.7	.	.	3	.	0.8
Polygala serpyllifolia	.	.	.	2	.	+	.	2	.	.	II	0.5	1	.	.	.	0.3
Potentilla erecta	2	3	2	4	3	3	.	3	2	+	V	2.3	1	.	3	2	1.5
Solidago virgaurea	1	3	3	4	2	.	.	.	.	.	III	1.3	1	.	.	.	0.3
Succisa pratensis	1	.	.	.	2	.	3	2	.	.	II	0.8	.	1	.	.	0.3
Thymus drucei	.	.	.	.	2	.	3	2	.	.	II	0.7	4	1	.	.	1.3
Andreaea rothii	.	1	.	1	3	.	.	.	.	.	II	0.5	.	.	.	.	
Campylopus atrovirens	.	1	.	3	3	.	.	.	.	.	II	0.7	1	.	.	.	0.3
C. flexuosus	.	.	.	.	1	.	.	.	.	1	I	0.2	.	.	1	.	0.3
Dicranum scoparium	.	.	.	.	.	2	.	.	1	.	I	0.3	.	.	.	.	
Hylocomium splendens	.	.	.	.	.	3	+	.	3	.	II	0.7	.	.	3	.	0.8
**Hypnum cupressiforme*	4	.	.	2	3	2	4	2	.	.	III	1.7	3	2	2	1	2.0
Pleurozium schreberi	.	.	.	.	.	2	.	.	.	.	I	0.2	.	.	3	.	0.8
Polytrichum piliferum	2	.	.	.	.	1	2	2	.	2	III	0.9	1	.	1	.	0.5
Rhacomitrium fasciculare	.	1	.	4	5	.	.	.	.	.	II	1.0	.	.	.	.	
R. heterostichum	.	3	3	1	3	.	.	1	.	.	III	1.1	1	1	.	.	0.5
R. lanuginosum	8	7	9	8	8	8	8	7	8	8	V	7.1	5	3	5	7	5.0
Rhytidiadelphus loreus	.	.	.	.	.	2	.	.	3	.	I	0.5	.	.	4	.	1.0
Diplophyllum albicans	.	.	.	.	.	.	.	1	.	+	I	0.2	.	1	1	1	0.8
Gymnomitrion crenulatum	.	.	.	1	.	.	.	.	.	.	I	0.1	.	.	.	1	0.3
Nardia scalaris	.	.	.	.	.	.	2	1	.	1	II	0.4	.	.	.	.	
Cladonia arbuscula	2	2	.	.	2	.	2	1	1	.	III	1.0	.	1	2	.	0.8
C. rangiferina	.	.	.	.	.	.	.	.	3	1	I	0.4	.	3	1	.	1.0
C. subcervicornis	.	.	.	2	.	.	.	.	.	1	I	0.3	.	.	1	.	0.3
C. uncialis	4	3	2	2	3	1	4	2	1	3	V	2.5	2	3	3	2	2.5
Cornicularia aculeata	.	.	.	1	.	.	.	1	.	.	I	0.2	.	+	.	.	0.3
Sphaerophorus globusus	3	2	3	2	1	2	2	2	2	2	V	2.1	.	.	.	.	
Stereocaulon vesuvianum	.	2	.	1	.	.	.	.	.	.	I	0.3	.	.	.	.	
Total number of species (66)	21	20	14	26	28	23	24	22	19	22			22	21	20	18	

Mean number of species per relevé = 21.9.
Total number of species in association = 60.

Mean number of species per relevé = 20.3.
Total number of species in *nodum* = 45.

* var. *ericetorum* in 1, 4, 5, 6, 7, 8, 11, 12, and 13. var. *gracilescens* in 2, 4, 5, 8, 11, and 12.

ADDITIONAL SPECIES IN LIST

1. *Arctostaphylos uva-ursi* 5, *Salix repens* 1.
3. *Dactylorchis maculata* ssp. *ericetorum* +.
5. *Carex demissa* 2, *Leucorchis albida* +, *Sagina procumbens* 2, *Ochrolechia frigida* 1.
7. *Hieracium* sp. 2, *Marsupella emarginata* 1.
9. *Juncus squarrosus* 1, *Cetraria islandica* 1.
10. *Oligotrichum hercynicum* +.
11. *Viola riviniana*, 2.
13. *Polytrichum alpinum* 1.
14. *Anthelia julacea* 1, *Pleurozia purpurea* 2.

LOCALITIES

1. Aird of Sleat; 2. Camasunary; 3. Blà Bheinn; 4, 5, 6. Beinn a' Chapiull; 7, 8. Drium na Ruaige; 9. Sgùrr na Coinnich; 10, 12, 13. Beinn Dearg; 11. Bealach Mosgaraidh; 12. Coire na Creiche.

TABLE 4.38

Class	CARICETEA CURVULAE													
Order	CARICETALIA CURVULAE													
Alliance	Arctostaphyleto–Cetrarion nivalis													
Association	*Rhacomitreto–Empetretum*									*Alchemilla alpina–Vaccinium myrtillus nodum*				
	1	2	3	4	5	6	7			8	9	10	11	
Reference Number	B68	B68	B68	B68	B68	B67	B67			B67	B67	B67	B67	
Map Reference	108	163	164	345	246	069	070			035	059	055	071	
	444	221	221	516	534	761	762			334	453	451	762	
Altitude (feet)	704	445	445	304	208	223	223			298	248	248	223	
Aspect (degrees)	1400	1400	1400	2000	2200	2250	2300			800	1600	2100	2300	
Slope (degrees)	45	0	0	0	0	315	45			0	45	315	315	
Cover (per cent)	15	5	10	8	5	5	15			45	30	40	30	
Plot area (square metres)	100	100	100	100	100	100	100			100	100	100	100	
	4	4	4	4	4	4	4	C	D	4	4	4	4	D
Empetrum hermaphroditum	5	5	6	8	6	6	8	V	6.3	.	.	+	.	0.3
Vaccinium myrtillus	5	3	6	4	4	3	4	V	4.1	5	6	6	7	6.0
V. vitis-idaea	.	.	.	.	.	1	2	II	0.4	.	.	.	1	0.3
Blechnum spicant	4	.	.	.	3	1	.	III	1.1	3	2	.	.	1.3
Hymenophyllum wilsonii	.	.	1	.	.	.	1	II	0.3	.	.	.	.	
Lycopodium alpinum	.	.	.	.	.	2	.	I	0.3	.	.	1	.	0.3
L. selago	.	2	3	.	4	3	2	IV	2.0	.	1	3	1	1.0
Selaginella selaginoides	.	1	1	.	.	.	.	II	0.3	1	.	.	.	0.3
Agrostis tenuis	.	3	3	.	.	.	.	II	0.9	.	.	.	.	
Deschampsia flexuosa	3	.	.	2	3	.	2	III	1.4	.	3	4	3	2.5
Festuca ovina	.	3	2	.	.	.	.	II	0.7	5	4	5	5	4.8
F. vivipara	4	2	4	4	4	3	3	V	3.4	2	2	4	3	2.8
Carex bigelowii	4	2	3	2	2	3	3	V	2.7	.	2	3	3	2.0
C. binervis	.	+	.	.	3	.	.	II	0.6	.	.	.	.	
C. pilulifera	.	3	3	.	+	.	.	III	1.0	.	.	.	.	
Luzula sylvatica	.	.	3	.	.	2	.	II	0.7	.	.	.	1	0.3
Alchemilla alpina	4	.	.	.	3	3	2	III	1.7	6	5	6	6	5.8
Armeria maritima	.	.	1	4	.	1	.	III	0.9	.	.	.	3	0.8
Galium saxatile	3	+	4	4	6	2	3	V	3.3	.	.	2	.	0.5
Hypericum pulchrum	1	1	.	.	.	.	.	II	0.3	.	.	.	.	
Plantago maritima	.	1	.	.	.	.	.	I	0.1	2	.	.	.	0.5
Potentilla erecta	3	.	3	.	3	.	.	III	1.3	3	3	.	.	1.5
Sedum rosea	2	.	2	.	.	.	1	III	0.7	.	.	.	.	
Solidago virgaurea	4	.	.	.	4	.	.	II	1.1	.	+	.	.	0.3
Succisa pratensis	.	.	.	.	1	.	.	I	0.1	1	.	.	.	0.3
Thymus drucei	3	4	.	.	2	.	.	III	1.3	.	.	.	.	
Viola riviniana	3	1	2	.	3	.	.	III	1.3	.	+	.	.	0.3
Andreaea alpina	.	.	.	.	2	.	.	I	0.3	.	.	1	.	0.3
Breutelia chrysocoma	5	4	5	.	.	.	.	III	2.0	4	.	.	.	1.0
Campylopus atrovirens	3	3	4	.	.	.	.	III	1.4	.	2	.	.	0.5
Dicranodontium uncinatum	.	.	.	.	.	2	2	II	0.6	.	.	.	.	
Dicranum fuscescens	.	.	.	.	2	.	.	I	0.3	.	2	+	.	0.8
D. scoparium	2	.	.	3	.	.	.	II	0.7	.	.	.	.	
Hylocomium splendens	.	.	3	1	1	3	.	III	1.1	3	.	.	3	1.5
**Hypnum cupressiforme*	2	.	.	.	.	.	2	II	0.6	2	3	.	.	1.3
Pleurozium schreberi	1	1	.	.	.	.	.	II	0.3	2	.	.	2	1.0
Polytrichum alpinum	.	2	2	2	2	3	.	IV	1.6	.	.	3	.	0.8
Rhacomitrium lanuginosum	9	9	8	7	8	8	7	V	8.0	8	8	8	8	6.0
Rhytidiadelphus loreus	.	.	5	3	.	4	4	III	2.3	2	.	.	.	0.5
Sphagnum plumulosum	.	.	3	.	.	.	.	I	0.4	1	.	.	.	0.3
†*S. subsecundum*	.	1	.	.	1	.	.	II	0.3	.	1	.	.	0.3
S. tenellum	.	.	.	.	.	2	2	II	0.6	.	.	.	.	
Tetraplodon mnioides	1	.	.	1	.	.	.	II	0.3	.	.	.	.	
Anastrepta orcadensis	.	.	.	2	.	2	1	III	0.7	.	.	.	.	
Anthelia julacea	.	1	.	1	1	.	1	III	0.6	.	.	.	.	
Bazzania pearsonii	.	.	.	1	.	.	1	II	0.3	.	.	.	.	
B. trilobata	.	.	+	3	.	3	3	III	1.4	.	.	.	.	
Diplophyllum albicans	2	2	2	2	2	3	3	V	2.3	.	.	.	.	
Mylia taylori	.	.	3	1	.	3	2	III	1.3	.	.	.	.	
Nardia scalaris	.	1	.	.	.	.	.	I	0.1	.	1	.	.	0.3
Plagiochila carringtonii	.	.	.	1	.	2	2	III	0.7	.	.	.	.	
P. spinulosa	3	.	1	+	.	.	.	III	0.7	.	.	.	.	
Pleurozia purpurea	+	.	4	.	.	3	3	III	1.6	.	.	+	.	0.3
Ptilidium ciliare	.	.	.	.	.	1	.	I	0.1	.	.	.	1	0.3
Scapania gracilis	2	.	3	3	.	3	1	IV	1.7	.	.	.	.	
S. ornithopodioides	.	.	.	.	.	1	+	I	0.1	.	.	.	.	
Cladonia arbuscula	.	.	.	.	.	2	3	II	0.7	2	.	.	1	0.8
C. impexa	.	.	.	1	.	1	3	III	0.7	.	.	.	.	
C. uncialis	3	2	.	3	2	3	2	V	2.1	.	.	1	2	0.8
Total number of species (89)	31	30	32	28	27	35	28			21	18	17	16	

Mean number of species per relevé = 30.1.
Total number of species in association = 83.

Mean number of species per relevé = 18.0.
Total number of species in *nodum* = 43.

* var. *erectorum* in 1, 7, 8, and 9.

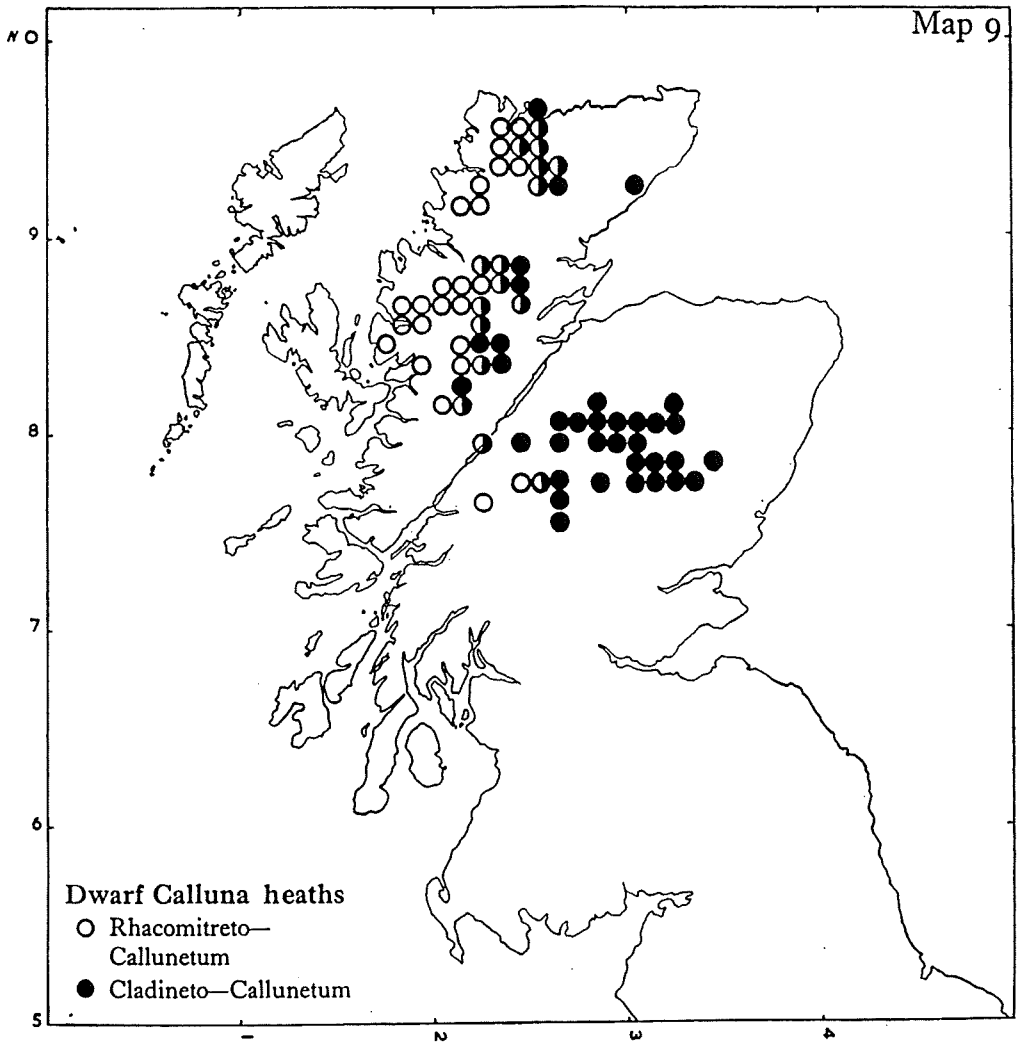
† var. *auriculatum* in 2, 5, and 9.

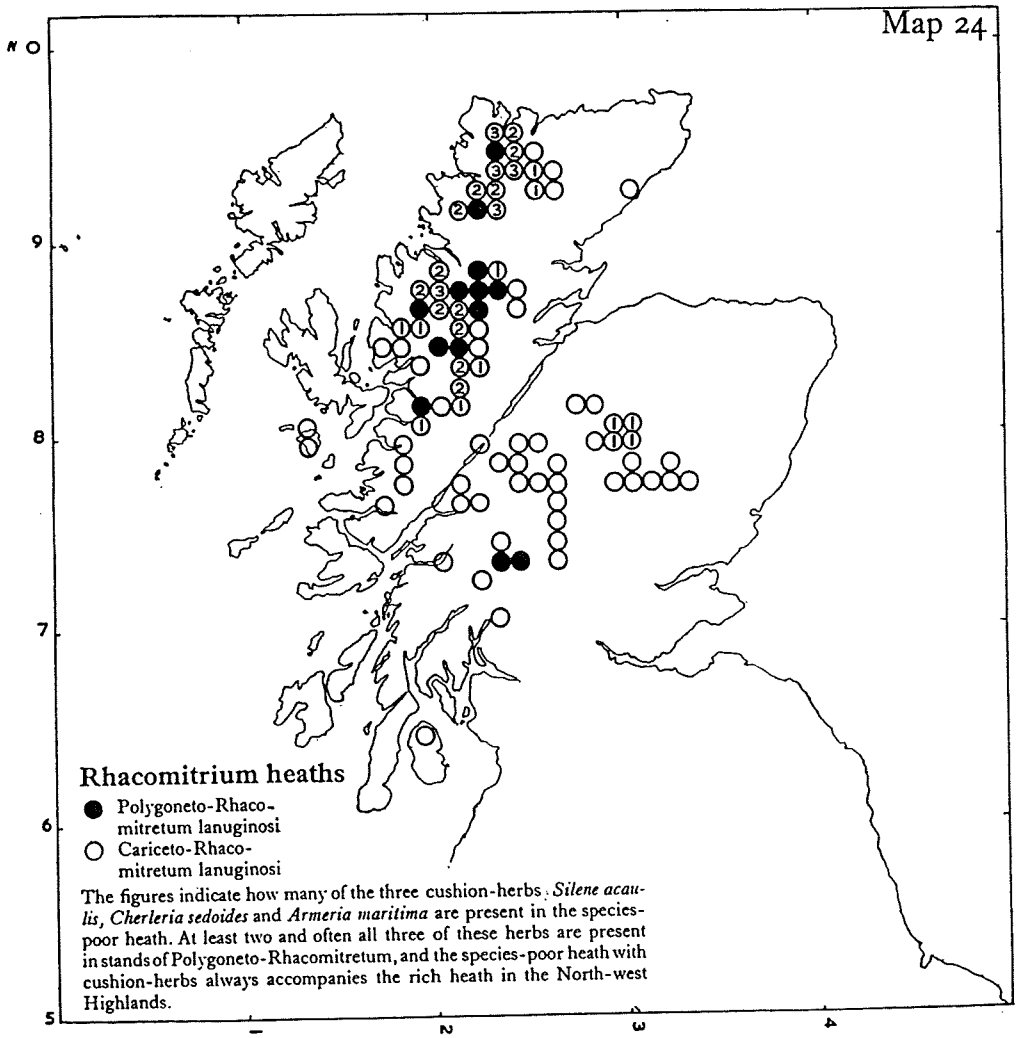
ADDITIONAL SPECIES IN LIST

1. *Erica cinerea* 4, *Thelypteris phegopteris* 2, *Polygala serpyllifolia* 2, *Veronica serpyllifolia* 1, *Polytrichum nanum* 1.
2. *Calluna vulgaris* 2, *Nardus stricta* 3, *Carex demissa* 2, *C. pulicaris* 1, *Marsupella emarginata* 2.
3. *Campylopus flexuosus* 1, *Dicranum majus* 1, *Thuidium tamariscinum* 1.
4. *Rumex acetosa* 3, *Silene acaulis* +, *Plagiothecium undulatum* 2, *Sphagnum capillaceum* 4.
5. *Trichophorum cespitosum* 1, *Cetraria islandica* 1.
6. *Juniperus communis* ssp. *nana* 1, *Salix herbacea* 1, *Pohlia nutans* 1, *Lophozia incisa* +, *Scapania nimbosa* 2.
8. *Thelypteris limbosperma* 2, *Anthoxanthum odoratum* 3, *Pinguicula vulgaris* 1, *Polytrichum piliferum* 2.
9. *Rubus saxatilis* +.
10. *Oligotrichum hercynicum* 2.

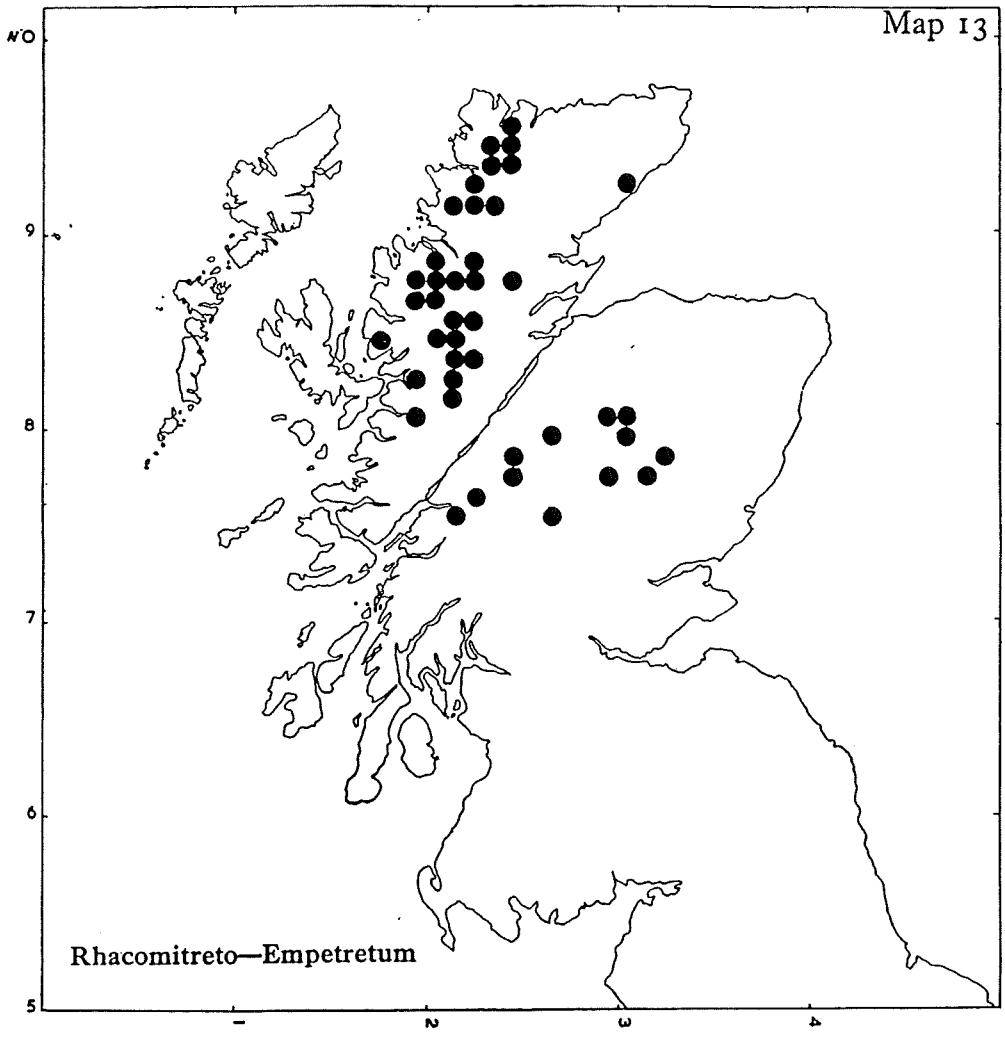
LOCALITIES

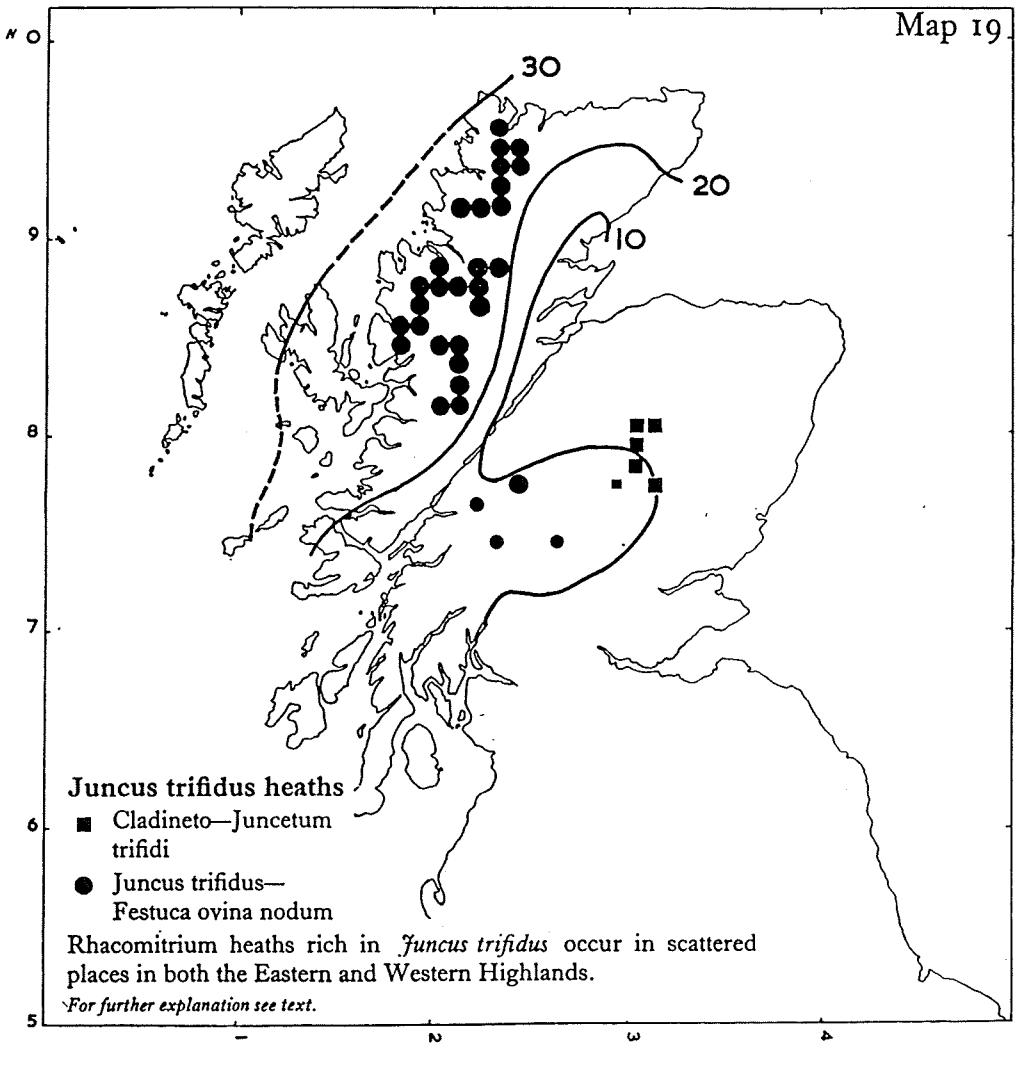
1. Sgùrr Mor; 2, 3. Healaval Mhor; 4. Glamaig; 5. Blà Bheinn; 6, 7, 11. Sgùrr na Coinnich; 8. Preshal More; 9, 10. Coire na Creiche.



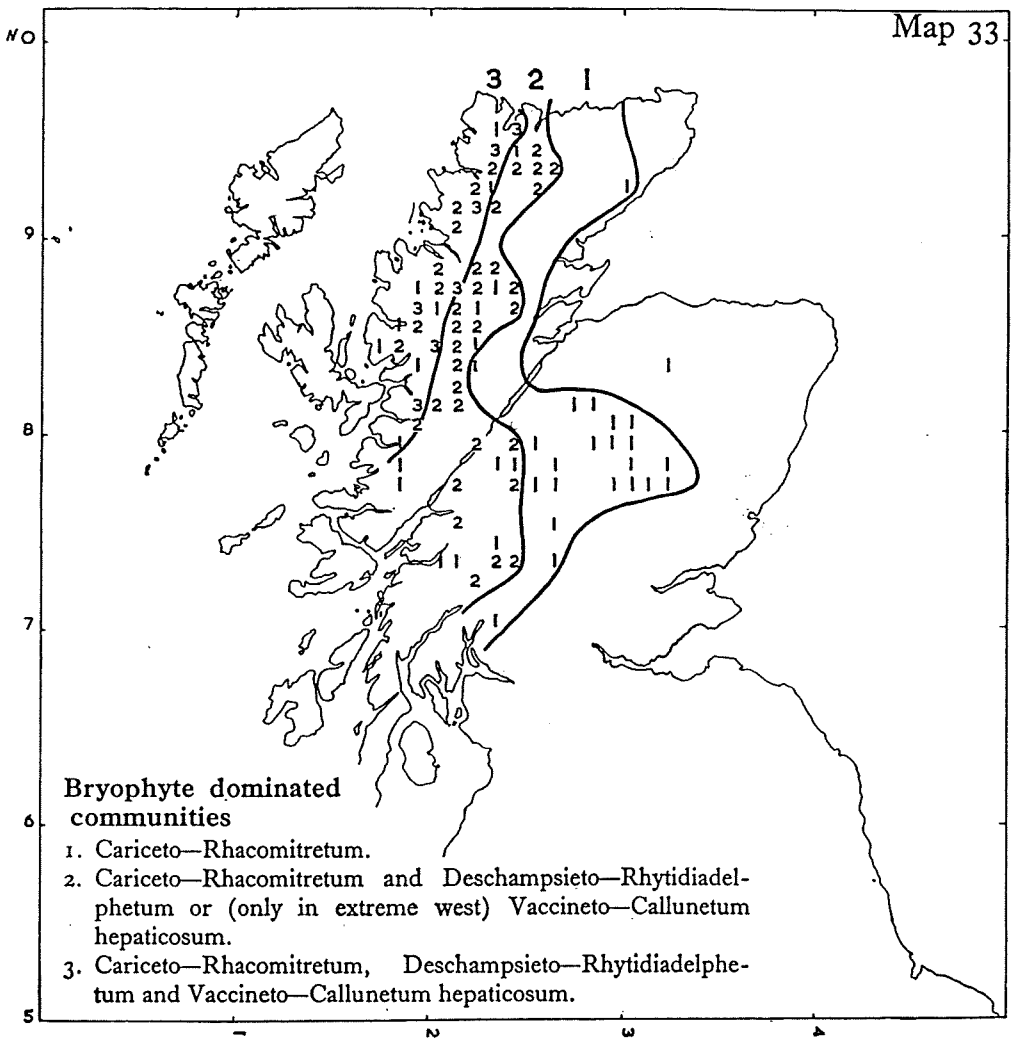


The figures indicate how many of the three cushion-herbs *Silene acaulis*, *Cherleria sedoides* and *Armeria maritima* are present in the species-poor heath. At least two and often all three of these herbs are present in stands of Polygoneto-Rhacomitretum, and the species-poor heath with cushion-herbs always accompanies the rich heath in the North-west Highlands.


Map 13
Rhacomitreto—Empetretum


Map 19
30
20
10
Juncus trifidus heaths
Cladineto—Juncetum trifidi
Juncus trifidus—Festuca ovina nodum
Rhacomitrium heaths rich in Juncus trifidus occur in scattered places in both the Eastern and Western Highlands.
For further explanation see text.

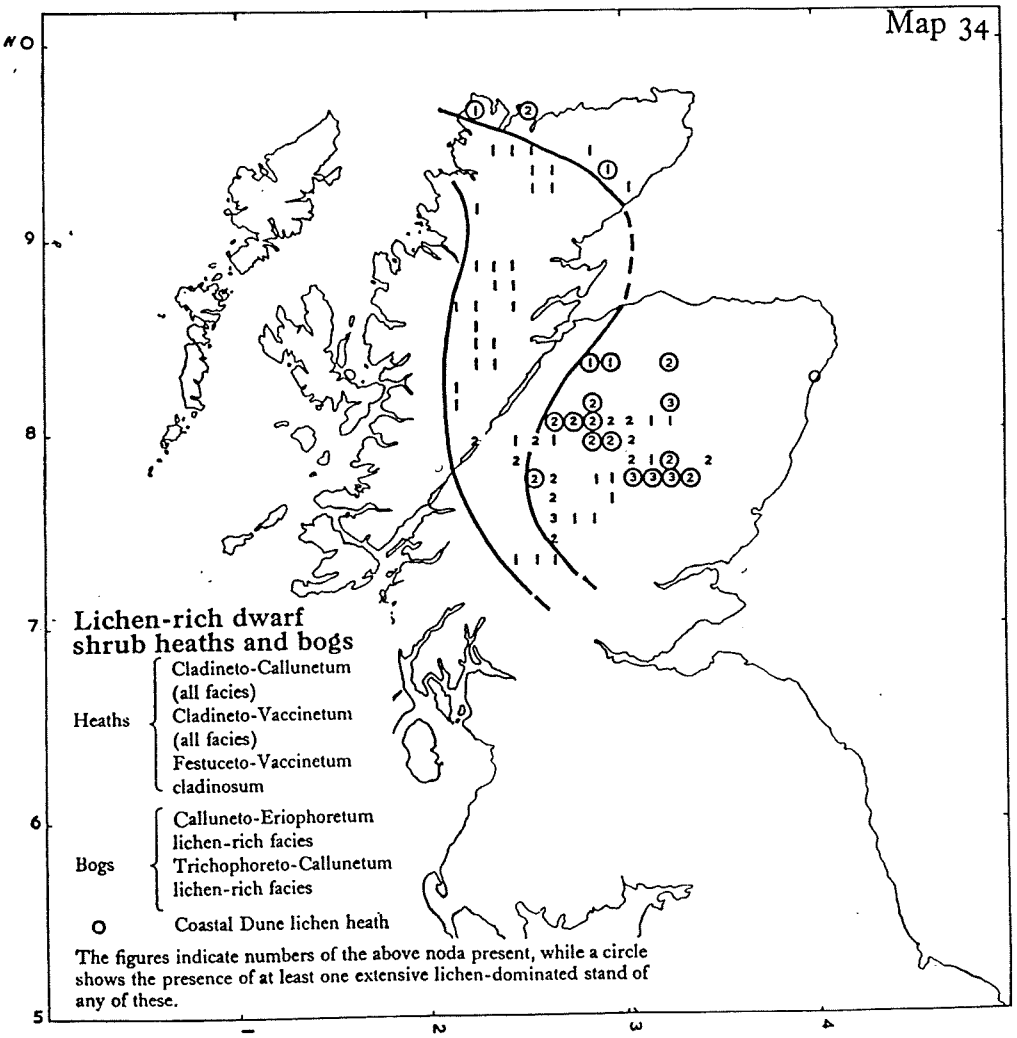
Map 33



Bryophyte dominated communities

1. Cariceto—Rhacomitretum.
2. Cariceto—Rhacomitretum and Deschampsieto—Rhytidiadelphetum or (only in extreme west) Vaccineto—Callunetum hepaticosum.
3. Cariceto—Rhacomitretum, Deschampsieto—Rhytidiadelphetum and Vaccineto—Callunetum hepaticosum.

Map 34



Lichen-rich dwarf shrub heaths and bogs

Heaths
- Cladineto-Callunetum (all facies)
- Cladineto-Vaccinetum (all facies)
- Festuceto-Vaccinetum cladinosum

Bogs
- Calluneto-Eriophoretum lichen-rich facies
- Trichophoreto-Callunetum lichen-rich facies

O Coastal Dune lichen heath

The figures indicate numbers of the above noda present, while a circle shows the presence of at least one extensive lichen-dominated stand of any of these.

Woodland vegetation

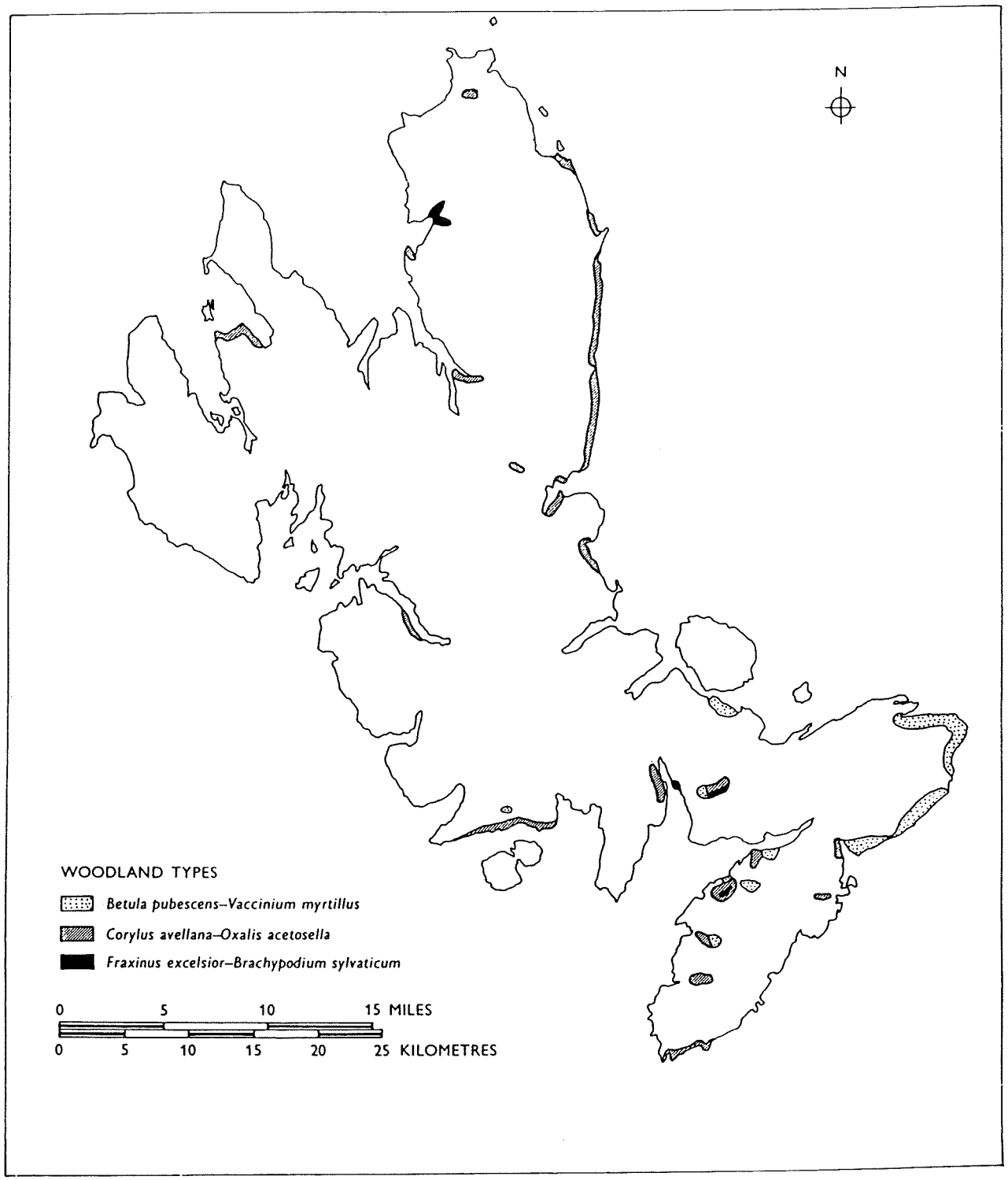


Figure 6. Present distribution of the three principal woodland types on the Isle of Skye.

TABLE 4.49

Class: QUERCETEA ROBORI-PETRAEAE
Order: QUERCETALIA ROBORI-PETRAEAE
Alliance: Quercion robori-petraeae

Association	*Betula pubescens–Vaccinium myrtillus*								*Corylus avellana–Oxalis acetosella*									
	1	2	3	4	5	6			7	8	9	10	11	12	13	14		
Reference Number	B68	B67	B67	B67	B67	B67			B67	B67	B67	B67	B67	B68	B68	B67		
Map Reference	317 750	097 625	040 709	096 640	100 598	120 612			098 613	101 602	105 603	041 703	078 567	320 762	137 413	102 603		
Altitude (feet)	250	126	153	121	199	123			118	198	081	145	201	251	519	201		
Aspect (degrees)	100	200	100	200	200	200			250	200	100	50	200	150	200	150		
Slope (degrees)	0	180	315	0	315	315			270	0	0	45	45	0	45	315		
Cover (per cent)	20	20	5	10	10	15			10	15	35	30	30	25	20	5		
Plot area (square metres)	100	100	100	100	100	100			100	100	100	100	100	100	100	100		
	16	16	4	16	16	4	C	D	16	16	16	16	16	16	16	4	C	D
Betula pubescens ssp. *odorata*	9	6	8	9	8	9	V	8.1	5	6	5	7	5	+	.	.	IV	3.6
Calluna vulgaris	5	3	+	3	5	3	V	3.3	1	.	.	2	.	.	.	.	II	0.4
Corylus avellana	+	.	2	.	.	3	III	1.0	9	9	8	9	9	8	9	.	V	7.6
Ilex aquifolium	+	3	.	.	.	.	II	0.7	.	.	.	.	.	.	.	.		
Lonicera periclymenum	.	3	.	.	.	1	II	0.7	.	.	.	.	.	.	.	.		
Quercus petraea	3	8	4	.	.	3	IV	3.0	.	3	2	.	.	.	.	.	II	0.6
Salix atrocinerea	.	.	.	4	.	2	II	1.0	.	.	.	3	.	.	3	.	II	0.8
S. caprea	.	.	.	3	2	.	II	0.8	.	.	.	.	.	.	.	.		
Sorbus aucuparia	4	3	3	4	3	3	V	3.3	3	.	3	4	3	4	.	.	IV	2.1
Vaccinium myrtillus	7	6	6	7	7	6	V	6.5	.	.	.	1	.	.	.	.	I	0.1
Athyrium filix-femina	.	1	.	.	.	2	II	0.5	.	.	2	.	3	3	2	.	III	1.3
Blechnum spicant	3	4	.	5	4	4	V	3.1	3	3	3	3	2	.	2	.	IV	2.0
Dryopteris aemula	2	.	.	.	.	.	I	0.3	.	.	.	.	+	.	.	.	I	0.1
D. borreri	.	.	.	.	.	.			.	.	.	.	4	.	4	.	II	1.0
D. dilatata	3	.	3	.	.	.	II	1.0	.	+	.	.	3	.	.	.	II	0.5
D. filix-mas	3	2	3	.	.	3	IV	1.8	2	2	3	3	3	.	.	.	IV	1.6
Hymenophyllum wilsonii	3	.	.	.	.	3	II	1.0	.	.	.	.	3	1	.	.	II	0.5
Polypodium vulgare	.	.	1	.	.	.	I	0.2	.	.	.	.	.	.	.	.	I	
Pteridium aquilinum	3	5	4	5	3	5	V	4.2	5	.	2	4	.	.	.	9	III	2.5
Thelypteris limbosperma	.	.	2	.	1	.	II	0.5	.	1	.	2	4	.	.	.	II	0.0
T. phegopteris	.	.	.	.	.	.			.	2	+	.	1	.	+	.	III	0.8
Agrostis canina	.	.	.	.	.	.			2	.	.	2	.	2	.	.	II	0.8
A. tenuis	4	.	.	.	4	.	II	1.3	.	.	.	.	.	.	.	.		
Anthoxanthum odoratum	4	3	3	3	3	4	V	3.3	5	3	5	6	.	6	3	3	V	3.0
Deschampsia cespitosa	.	.	.	.	.	.			.	5	5	4	6	4	7	6	V	4.6
D. flexuosa	5	4	5	4	4	5	V	4.5	4	.	.	.	.	.	.	.	I	0.5
Festuca vivipara	.	.	.	3	2	.	II	0.8	.	3	.	2	.	.	.	.	II	0.6
Holcus lanatus	3	.	.	.	.	.	I	0.5	.	.	.	4	.	1	.	.	II	0.6
Allium ursinum	.	.	.	.	.	.			1	.	.	.	.	.	4	.	II	0.6
Carex binervis	.	3	.	3	.	1	III	1.2	2	1	.	.	.	.	.	.	II	0.4
C. pallescens	.	.	1	.	1	.	II	0.3	+	2	1	3	.	.	.	1	IV	1.0
C. sylvatica	.	.	1	4	.	.	II	0.8	+	.	.	.	.	.	.	.	I	0.1
Endymion non-scriptus	.	3	3	.	3	3	IV	2.0	3	4	.	1	3	.	5	.	IV	2.0
Luzula campestris	.	.	.	2	.	.	I	0.3	.	1	.	1	.	.	.	.	II	0.3
L. multiflora	.	.	.	.	.	.			.	2	.	1	.	.	.	.	II	0.4
L. sylvatica	2	.	.	.	.	.	I	0.3	.	.	.	.	.	.	.	.		
Ajuga reptans	.	.	.	.	.	.			.	.	.	.	.	2	.	+	II	0.4
Anemone nemorosa	.	.	1	.	.	.	I	0.2	3	.	.	.	.	.	.	.	I	0.4
Caltha palustris	.	.	.	.	.	.			+	.	.	.	2	.	.	.	II	0.4
Cardamine flexuosa	.	.	.	.	.	.			.	.	.	.	1	1	.	.	II	0.3
Circaea intermedia	.	.	.	.	.	.			.	.	.	.	.	3	2	.	II	0.6
Conopodium majus	1	.	.	.	.	.	I	0.2	2	.	3	1	.	.	3	.	III	1.1
Digitalis purpurea	.	.	.	.	.	.			.	.	.	.	3	2	.	.	II	0.6
Filipendula ulmaria	.	.	.	.	.	.			.	3	3	.	1	2	.	3	IV	1.1
Galium saxatile	4	1	2	3	4	4	V	3.3	3	3	4	3	2	3	.	3	V	2.6
Geum rivale	.	.	.	.	.	.			.	2	.	.	.	2	.	2	II	0.8
Lysimachia nemorum	.	.	1	.	.	.	I	0.2	.	2	3	.	2	1	3	.	IV	1.4
Melampyrum pratense	1	3	.	.	.	.	II	0.7	.	.	.	+	.	.	.	.	I	0.1
Oxalis acetosella	4	2	3	.	3	3	V	2.5	4	5	5	5	3	5	4	5	V	4.5
Polygala serpyllifolia	.	3	.	.	1	.	II	0.7	1	2	1	.	.	.	.	.	I	0.5
Potentilla erecta	3	4	3	4	3	5	V	3.7	3	3	4	4	4	.	.	3	IV	2.6
Primula vulgaris	.	.	2	.	.	.	I	0.3	5	5	5	5	3	4	4	.	V	3.9
Ranunculus acris	1	.	1	.	.	.	II	0.3	2	.	2	.	1	.	.	2	III	0.9
R. ficaria	.	.	.	.	.	.			.	2	.	.	2	.	.	1	II	0.6
Succisa pratensis	.	.	.	.	2	.	I	0.3	.	.	.	2	.	.	.	.	I	0.3
Veronica chamaedrys	.	.	.	.	.	.			.	.	.	.	1	.	.	.	II	0.3
V. serpyllifolia	.	1	.	.	.	.	I	0.2	.	.	.	2	.	1	.	1	II	0.1
Viola riviniana	2	.	2	.	.	.	II	0.7	3	3	4	2	2	1	4	2	V	2.6
Atrichum undulatum	.	.	.	.	.	.			.	1	1	.	.	.	.	.	II	0.3
Breutelia chrysocoma	.	.	2	.	.	.	I	0.3	1	.	.	.	.	.	.	.	I	0.1
Dicranodontium denudatum	1	.	1	.	.	.	II	0.3	.	.	.	.	1	.	.	.	I	0.1
Dicranum majus	1	3	4	.	.	5	IV	2.2	.	2	2	.	1	.	.	.	II	0.6
D. scoparium	.	3	3	.	2	.	III	1.3	.	.	.	.	.	.	.	.		
**Eurhynchium praelongum*	.	.	1	.	.	.	I	0.2	.	.	.	.	2	3	.	.	II	0.6
E. striatum	.	.	2	.	.	.	I	0.3	.	4	4	2	3	.	.	.	III	1.6
Heterocladium heteropterum	.	.	.	.	.	.			.	.	.	.	+	1	.	.	II	0.3
Hylocomium brevirostre	2	.	2	.	.	.	II	0.7	5	3	4	5	3	5	3	.	V	3.5
H. splendens	3	4	4	5	4	5	V	4.2	4	3	3	3	3	4	.	.	IV	2.5
H. umbratum	3	.	2	.	.	3	III	1.3	.	.	+	.	.	3	.	.	II	0.5
Hypnum callichroum	.	.	.	.	.	.			.	.	.	3	1	.	.	.	II	0.5
†H. cupressiforme	1	1	.	2	.	2	IV	1.2	.	3	1	.	3	1	.	.	III	1.0
Isothecium myosuroides	1	4	.	.	.	.	II	0.8	.	.	.	2	4	.	+	.	II	0.9
I. myurum	.	.	.	.	.	.			.	.	1	.	1	.	.	.	II	0.3
Leucobryum glaucum	.	1	1	.	.	+	III	0.5	.	.	.	1	.	.	.	.	I	0.1
Mnium hornum	2	.	3	.	.	2	III	1.2	1	.	1	.	1	2	.	.	III	0.6
M. undulatum	.	.	.	.	.	.			.	.	.	1	1	1	1	.	III	0.5
Plagiothecium sylvaticum	.	.	.	.	.	.			.	.	1	.	.	.	+	.	II	0.3
P. undulatum	1	3	2	.	2	3	V	1.8	1	.	.	.	1	2	.	.	II	0.5
Pleurozium schreberi	2	3	3	.	3	2	V	2.2	.	.	.	.	.	.	.	.		
Polytrichum formosum	2	4	3	.	1	3	V	2.2	.	2	.	.	2	2	.	.	II	0.8
Ptilium crista-castrensis	2	.	.	.	4	.	II	1.0	.	.	.	.	.	.	.	.		
Rhytidiadelphus loreus	4	4	3	.	3	1	V	2.5	3	3	.	5	6	4	.	.	IV	2.6
R. squarrosus	.	.	2	.	.	.	I	0.3	.	.	2	.	.	.	.	.	I	0.3
R. triquetrus	.	2	3	.	.	.	IV	0.8	.	+	2	2	.	.	5	.	III	1.3
Sphagnum fimbriatum	3	.	1	.	3	3	IV	1.7	.	.	.	3	.	.	.	.	I	0.4
S. quinquefarium	4	.	4	.	4	3	IV	2.5	.	.	.	2	.	.	.	.	I	0.3
Thuidium delicatulum	3	3	5	.	3	3	V	2.8	2	3	.	5	6	.	2	.	IV	2.3
T. tamariscinum	4	4	3	3	3	3	V	3.3	3	3	5	3	3	3	4	4	V	3.1
Barbania trilobata	2	.	2	.	.	.	II	0.7	.	.	.	.	.	.	.	.		
Diplophyllum albicans	1	.	.	.	.	.	I	0.2	.	.	.	.	.	.	.	.		
Lepidozia reptans	1	.	.	.	.	1	II	0.3	.	.	.	.	.	.	.	.		
†Plagiochila asplenioides	2	.	.	.	.	.	I	0.3	1	.	.	.	.	2	.	.	II	0.4
P. spinulosa	2	.	.	.	.	.	I	0.3	.	.	1	.	2	1	.	.	II	0.5
Saccogyna viticulosa	1	.	.	.	.	.	I	0.2	.	.	.	.	1	.	.	.	I	0.1
Scapania gracilis	1	2	3	3	.	2	V	1.8	.	.	.	.	3	.	1	.	II	0.5
S. nemorea	.	.	2	.	.	.	I	0.3	.	.	.	.	1	2	.	.	II	0.4
Peltigera canina	.	.	.	.	.	+	I	0.2	1	.	.	.	.	.	2	.	II	0.4
Total number of species (127)	54	36	52	20	31	38			36	40	40	44	36	39	26	16		

Mean number of species per relevé = 38.5.
Total number of species in association = 87.

Mean number of species per relevé = 40.1.
Total number of species in association = 106.

* var. *stokesii* in 12. † var. *ericetorum* in 1, 4, and 6. ‡ var. *major* in 1, 7, and 12.

ADDITIONAL SPECIES IN LIST

1. *Prunella vulgaris* 1, *Dicranella heteromalla* 1, *Calypogeia fissa* 1, *Cephalozia bicuspidata* 1, *Mylia taylori* 1.
2. *Teucrium scorodonia* 1.
3. *Hedera helix* 3, *Sanicula europaea* 2, *Hookeria lucens* 1, *Pseudoscleropodium purum* 1.
5. *Sphagnum capillaceum* 2.
7. *Carex remota* +.
8. *Polystichum aculeatum* +, *Ctenidium molluscum* 2.
9. *Dactylis glomerata* 2, *Galium odoratum* 1, *Fissidens taxifolius* 1, *Calypogeia arguta* 1.
10. *Carex panicea* 2, *Acrocladium cuspidatum* 2.
11. *Rubus fruticosus* agg. 1, *Mnium punctatum* 1, *Trichostomum tenuirostre* 1, *Adelanthus decipiens* +, *Frullania germana* 1, *F. tamarisci* 1, *Scapania umbrosa* 1.
12. *Prunus padus* 4, *Epilobium montanum* 1, *Galium aparine* 3.

LOCALITIES

1, 12. Kyleakin; 2. Ord; 3. E. side of Loch na Dal; 4. Coill a'Ghasgain; 5, 8, 14. Coille Gaireallach; 6, 7. Tokavaig; 9. Gillean Burn; 10. W. side of Loch na Dal; 11. Faoilean; 12. Loch Eyre.

TABLE 4.52

Class	QUERCETEA ROBORI-PETRAEAE							
Order	QUERCETALIA ROBORI-PETRAEAE							
Alliance	**Quercion robori-petraeae**							
Association	*Open Boulder Association*							
	1	2	3	4	5	6		
Reference number	B68 219	B68 271	B68 273	B68 274	B68 275	B68 279		
Map Reference	596 267	707 157	707 157	707 157	707 157	703 145		
Altitude (feet)	100	100	100	100	100	50		
Aspect (degrees)	315	225	225	225	225	45		
Slope (degrees)	70	60	80	75	80	60		
Cover (per cent)	60	50	60	70	70	70		
Plot area (square metres)	1	1	1	1	1	0.5	C	D
Dicranum scoparium	.	1	.	.	3	.	II	0.7
Grimmia hartmanii	4	5	1	.	.	.	III	1.7
Heterocladium heteropterum	6	3	7	7	6	6	V	5.8
Hyocomium flagellare	.	3	3	3	2	2	V	2.2
Hypnum callichroum	6	.	.	.	3	.	IV	1.5
Rhacomitrium aquaticum	3	6	5	3	4	7	V	4.7
R. fasciculare	.	4	6	.	.	.	II	1.7
Thuidium delicatulum	.	2	1	.	.	.	II	0.5
Trichostomum tenuirostre	3	.	.	3	2	4	IV	2.0
Diplophyllum albicans	3	4	1	3	3	4	V	3.0
Lejeunea patens	.	3	1	2	2	3	V	1.8
Marsupella emarginata	.	5	5	5	4	.	IV	3.2
Plagiochila spinulosa	.	.	.	1	1	.	II	0.3
Scapania gracilis	.	4	5	6	5	3	V	3.8
S. umbrosa	2	.	.	.	.	2	II	0.7
Total number of species (29)	11	12	12	14	14	11		

Mean number of species per relevé = 12.3.

ADDITIONAL SPECIES IN LIST

1. *Mnium punctatum* 3, *Plectocolea hyalina* 1, *Saccogyna viticulosa* +, *Scapania undulata* 4.
3. *Isothecium myosuroides* 2.
4. *Calypogeia fissa* 1, *Frullania tamarisci* 2, *Scapania nemorea* 1.
5. *Dicranum scottianum* 2, *Frullania germana* 3.
6. *Brachythecium plumosum* 1, *Aphanolejeunea microscopica* 3, *Plagiochila asplenioides* 3.

LOCALITIES

1. Near Allt Strollamus; 2, 3, 4, 5. E. side Loch na Dal; 6. W. side Loch na Dal.

TABLE 4.51

Class	QUERCETEA ROBORI-PETRAEAE
Order	QUERCETALIA ROBORI-PETRAEAE
Alliance	Quercion robori-petraeae
Association	*Hymenophyllum wilsonii–Isothecium myosuroides*

	1	2	3	4	5	6	7	8	9	10	11	12	13		
Reference Number	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68	B68		
	139	268	276	270	272	299	316	282	280	297	315	220	222		
Map Reference	413	707	707	707	707	612	750	703	703	612	750	596	596		
	519	157	157	157	157	121	250	145	145	121	250	267	267		
Altitude (feet)	200	100	100	100	100	200	100	50	50	200	100	100	50		
Aspect (degrees)	45	225	225	225	225	0	0	45	45	0	0	0	0		
Slope (degrees)	80	70	70	80	60	70	80	90	70	80	80	50	45		
Cover (per cent)	100	100	100	100	100	100	100	100	100	100	100	100	100		
Plot area (square metres)	1	1	1	1	1	1	1	1	1	1	1	1	1	C	D
Hymenophyllum wilsonii	5	5	4	5	5	4	5	5	6	7	7	7	8	V	5.6
Deschampsia flexuosa	.	1	.	1	2	.	.	3	.	2	.	.	2	III	0.8
Campylopus flexuosus	.	.	.	.	.	.	.	2	.	1	.	.	.	I	0.2
Dicranum majus	.	3	.	.	1	.	.	3	.	.	.	.	.	II	0.5
D. scoparium	.	1	2	1	2	3	1	2	.	4	1	2	3	V	1.7
D. scottianum	.	.	.	2	.	+	.	.	.	.	.	.	3	II	0.5
**Hypnum cupressiforme*	.	3	5	3	4	1	2	.	.	2	1	2	3	IV	2.0
Isothecium myosuroides	7	8	7	6	5	8	5	7	8	5	5	6	3	V	6.2
Pleurozium schreberi	.	.	.	1	.	.	.	1	.	1	.	.	2	II	0.4
Polytrichum formosum	.	.	.	.	2	.	.	.	.	1	.	2	2	II	0.5
Rhacomitrium aciculare	1	.	.	2	.	.	.	.	.	.	.	.	.	I	0.2
Rhytidiadelphus loreus	.	.	.	.	.	1	1	2	2	1	1	.	.	III	0.6
Sphagnum quinquefarium	.	.	.	.	.	.	.	.	.	2	.	.	2	II	0.3
Thuidium delicatulum	3	.	.	.	.	2	4	.	.	1	.	.	.	II	0.8
T. tamariscinum	.	.	.	.	1	2	.	.	.	.	2	1	4	II	0.8
Adelanthus decipiens	.	.	5	3	1	.	.	.	.	.	.	.	.	II	0.7
Bazzania tricrenata	.	.	.	.	.	.	.	.	.	3	2	.	.	I	0.4
B. trilobata	.	.	.	.	2	2	.	.	.	.	.	.	.	I	0.3
Diplophyllum albicans	2	2	2	4	.	.	.	.	.	.	.	2	.	II	0.9
Frullania tamarisci	5	2	.	.	.	.	.	1	.	.	.	1	1	II	0.8
Lepidozia reptans	.	1	.	.	1	.	2	1	.	.	.	.	.	II	0.4
Plagiochila punctata	.	.	2	3	.	.	.	3	.	.	2	.	3	II	1.0
P. spinulosa	4	6	5	8	8	4	7	6	3	6	6	5	5	V	5.6
Saccogyna viticulosa	.	2	1	.	3	.	.	.	.	3	2	.	2	III	1.0
Scapania gracilis	3	4	4	.	2	5	3	4	3	5	4	4	.	V	3.4
Peltigera canina	4	.	.	.	.	.	.	.	.	.	.	.	1	I	0.4
Sticta fuliginosa	.	.	1	.	2	.	.	.	.	.	.	.	.	I	0.2
Total number of species (45)	14	13	12	12	16	11	9	16	7	16	11	12	17		

* var. *ericetorum* in 6, 7, 10, and 11. Mean number of species per relevé = 12.8.

ADDITIONAL SPECIES IN LIST

1. *Plagiothecium denticulatum* 2, *Rhacomitrium fasciculare* 1, *Lejeunea cavifolia* 1, *Metzgeria furcata* 1, *Nephromium laevigatum* 1.
2. *Scapania umbrosa* 1.
3. *Lobaria pulmonaria* 1.
5. *Hylocomium splendens* 1.
6. *Sticta sylvatica* 2.
8. *Festuca vivipara* 1, *Hylocomium brevirostre* 2.
9. *Galium saxatile* 2, *Cladonia* sp. 2.
10. *Sphaerophorus fragilis* 2.
12. *Oxalis acetosella* 1, *Frullania germana* 1.
13. *Mnium hornum* 1, *Mylia taylori* 3.

LOCALITIES

1. Loch Eyre; 2, 3, 4, 5. E. side Loch na Dal; 6, 10. Tokavaig; 7, 11. Kyleakin; 8, 9. W. side Loch na Dal; 12, 13. near Allt Strollamus.

TABLE 4.50‡

Class	QUERCETEA ROBORI-PETRAEAE
Order	QUERCETALIA ROBORI-PETRAEAE
Alliance	Quercion robori-petraeae
Association	*Oxalis acetosella–Rhytidiadelphus loreus*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14		
Reference Number	B68	B68	B68	B68	B68	B68	B68	B68	B 68	B68	B68	B68	B68	B68		
	218	264	266	267	300	314	319	138	221	269	313	281	283	298		
Map Reference	596	707	707	707	612	750	756	413	596	707	750	703	703	612		
	267	157	157	157	121	250	251	519	267	157	250	145	145	131		
Altitude (feet)	100	100	100	100	200	100	100	200	50	100	100	50	50	200		
Aspect (degrees)	.	225	225	225	0	0	0	45	0	225	0	45	45	0		
Slope (degrees)	0	5	5	3	5	2	5	5	5	5	5	10	5	20		
Cover (per cent)	100	100	100	100	100	100	100	100	100	100	100	100	100	100		
Plot area (square metres)	1	1	1	1	1	1	1	0.5	1	1	1	1	1	1	C	D
Sorbus aucuparia	.	.	.	1	.	1	1	.	3	2	1	.	3	1	III	0.9
Vaccinium myrtillus	.	.	.	.	4	4	3	.	.	4	.	5	5	6	III	2.2
Blechnum spicant	.	.	.	.	.	.	.	.	.	.	.	.	3	2	I	0.4
Hymenophyllum wilsonii	4	.	.	.	.	.	2	3	2	.	1	3	.	.	III	1.1
Anthoxanthum odoratum	.	.	.	.	2	2	.	.	.	.	3	.	.	.	II	0.5
Deschampsia flexuosa	4	4	4	5	3	3	.	3	4	6	3	5	3	5	V	3.7
Festuca vivipara	.	.	.	.	.	.	.	.	1	.	.	3	.	.	I	0.3
Endymion non-scriptus	2	3	.	.	.	.	.	.	.	.	.	.	2	.	II	0.5
Galium saxatile	.	.	.	2	3	3	.	.	.	2	.	2	.	.	II	0.9
Melampyrum pratense	.	.	.	.	.	.	.	.	.	.	.	.	1	2	I	0.2
Oxalis acetosella	3	4	4	2	3	2	2	2	2	3	5	3	3	.	V	2.7
Potentilla erecta	.	.	4	2	4	.	3	.	3	.	2	4	.	5	III	1.9
Breutelia chrysocoma	.	.	.	.	.	.	.	1	.	.	.	1	.	.	I	0.1
Dicranum majus	3	.	.	.	.	2	1	3	.	1	1	2	.	3	III	1.1
D. scoparium	.	.	1	.	.	.	3	.	1	.	2	.	1	.	II	0.6
Hylocomium brevirostre	4	7	8	7	5	4	8	7	2	7	3	5	5	2	V	5.3
H. splendens	8	5	3	4	3	2	3	2	6	5	5	6	5	3	V	4.3
H. umbratum	3	.	.	.	.	3	2	.	.	.	2	4	.	.	II	1.0
**Hypnum cupressiforme*	2	.	.	.	.	.	.	.	2	.	3	2	.	2	II	0.8
Isothecium myosuroides	1	3	.	3	2	.	.	3	3	1	.	.	3	.	III	1.4
Mnium hornum	.	.	.	.	.	.	.	2	1	.	1	.	1	.	II	0.4
Pleurozium schreberi	.	.	.	.	3	5	.	.	3	2	2	1	2	4	III	1.6
Polytrichum formosum	1	.	3	1	4	1	2	.	4	2	3	.	2	4	IV	1.9
Ptilium crista-castrensis	.	.	.	.	.	2	2	.	.	.	.	.	.	.	I	0.3
Rhytidiadelphus loreus	2	4	5	4	8	8	4	3	6	3	8	5	3	5	V	4.9
R. triquetrus	.	.	.	.	2	.	.	4	.	1	.	.	.	.	II	0.5
Thuidium delicatulum	4	6	4	5	3	5	2	4	7	5	2	3	4	3	V	4.1
T. tamariscinum	.	.	4	.	3	.	3	.	.	3	3	.	6	5	III	1.9
Bazzania trilobata	.	.	.	.	.	2	.	.	.	4	.	3	.	.	II	0.6
Diplophyllum albicans	.	.	.	.	.	.	.	.	.	.	1	.	.	1	I	0.1
Frullania tamarisci	1	.	.	.	1	.	.	.	.	3	.	.	1	.	II	0.4
Plagiochila spinulosa	3	.	.	2	.	1	.	.	.	.	1	.	.	.	II	0.5
Scapania gracilis	2	.	.	.	.	.	.	.	2	5	.	.	.	.	II	0.6
Total number of species (52)	16	8	13	12	16	17	18	14	17	18	20	19	20	23		

* var. *ericetorum* in 1, 11, 12, and 14. Mean number of species per relevé = 16.5.

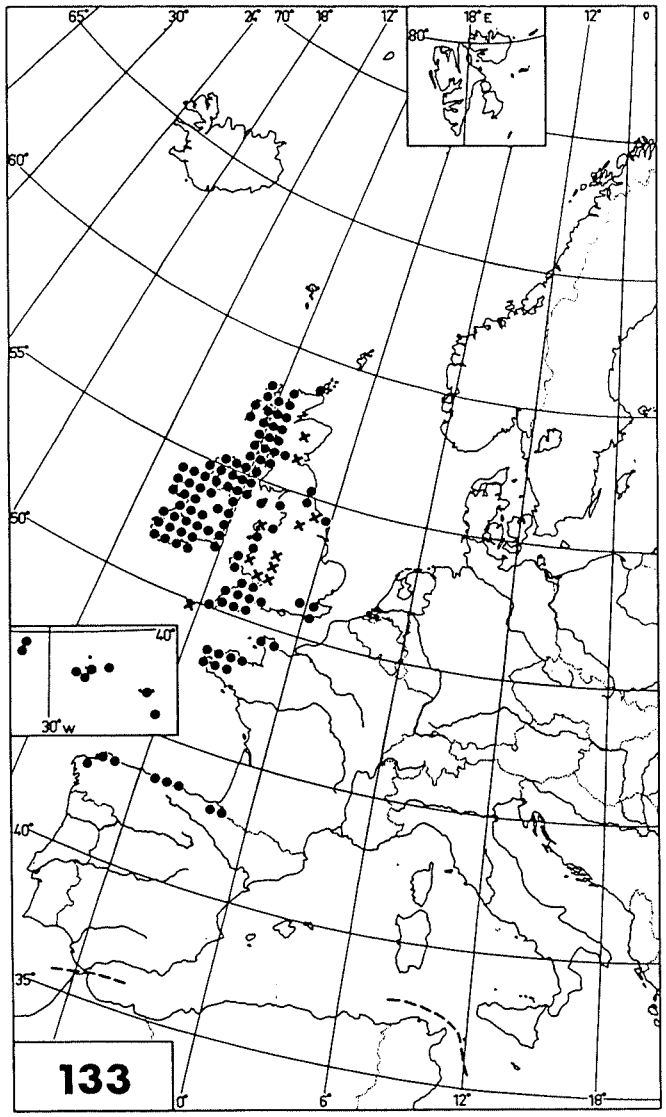
ADDITIONAL SPECIES IN LIST

3. *Polypodium vulgare* agg. +, *Luzula multiflora* 1, *Sphagnum fimbriatum* 2.
7. *Lonicera periclymenum* 4, *Plagiothecium undulatum* 1.
8. *Geranium robertianum* 1, *Plagiochila asplenioides* 2, *Peltigera canina* 3.
12. *Eurhynchium striatum* 2, *Isothecium myurum* 2.
13. *Pteridium aquilinum* 2, *Pseudoscleropodium purum* 1.
14. *Betula pubescens* ssp. *odorata* 1, *Calluna vulgaris* 3, *Erica cinerea* 3, *Sphagnum capillaceum* 5, *S. quinquefarium* 3, *Calypogeia muellerana* 1, *Saccogyna viticulosa*.

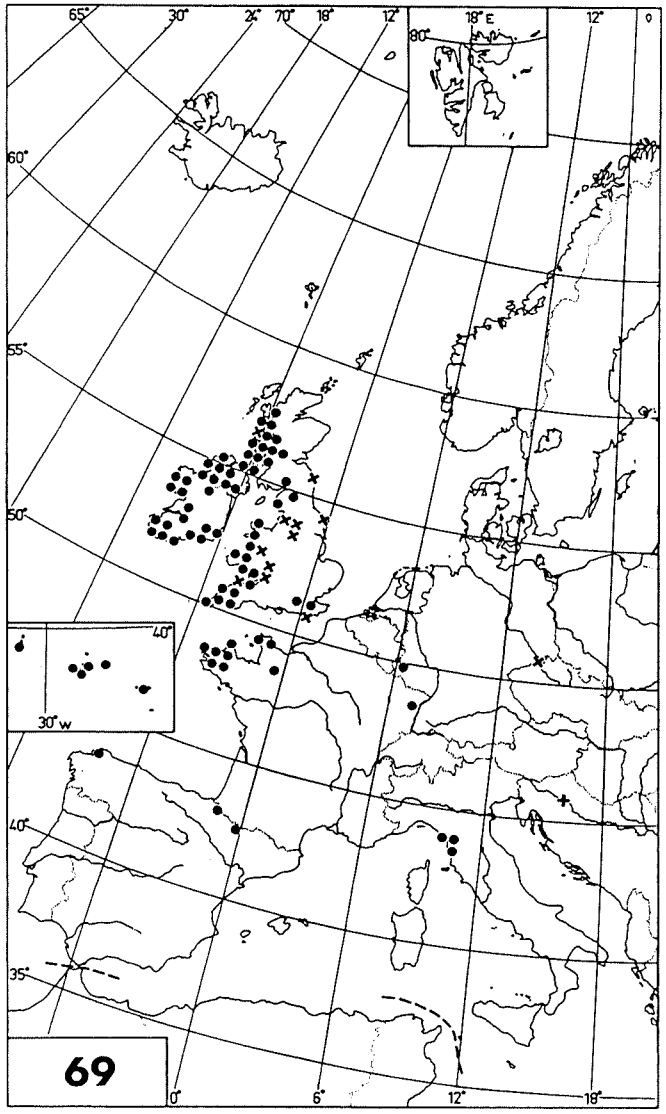
LOCALITIES

1, 9. Near Allt Strollamus; 2, 3, 4, 10. E. side of Loch na Dal; 5, 14. Tokavaig; 6, 7, 11. Kyleakin; 8. Loch Eyre; 12, 13. W. side of Loch na Dal.

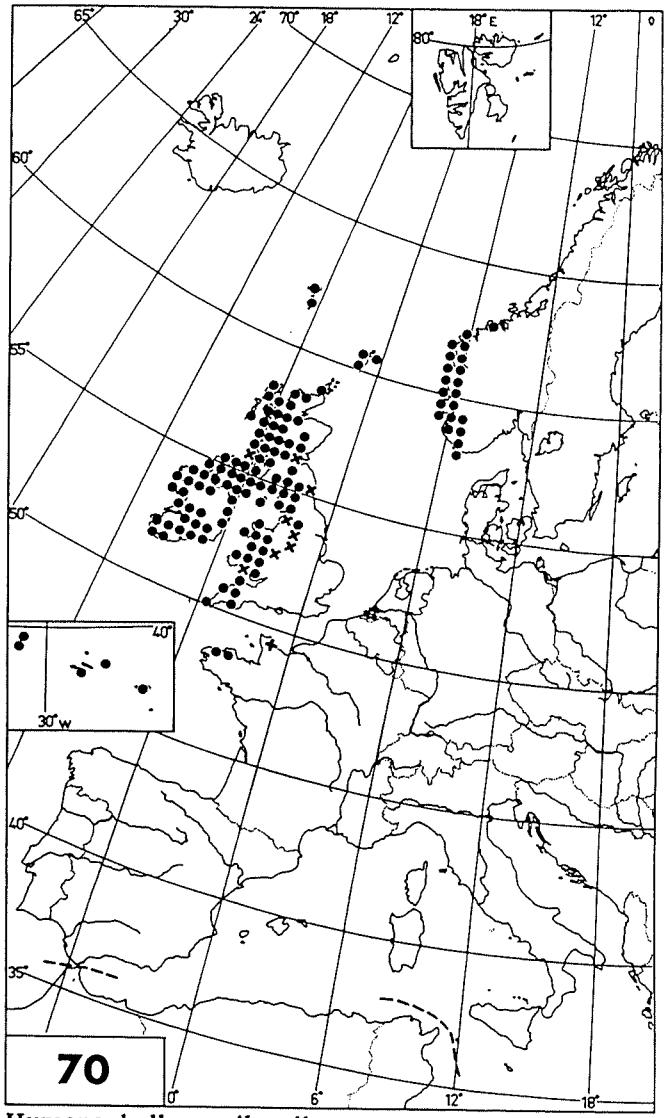
‡ Table 4.49 can be found overleaf.



Dryopteris aemula



Hymenophyllum tunbrigense



Hymenophyllum wilsonii

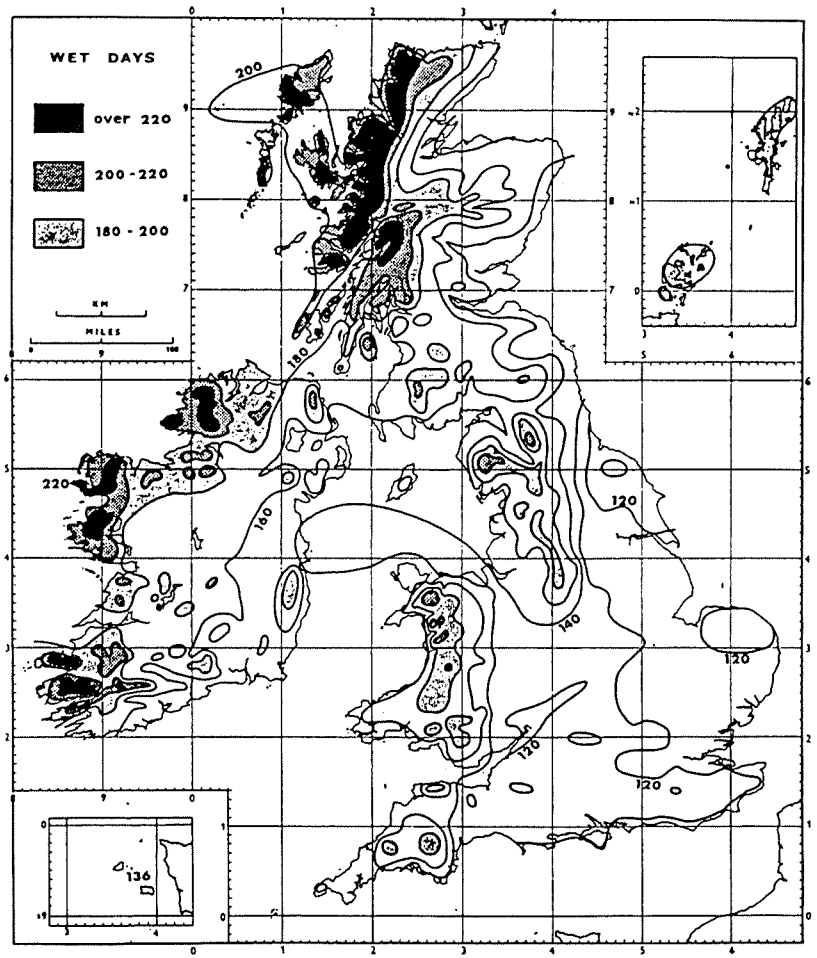


Fig. 3. Distribution of mean annual number of wet days in the British Isles for the period 1951–60. This map was compiled from data published in *British Rainfall*, 1951–60, and is based on the meteorological category of a 'wet day' as a period of 24 hours in which 0.04 in. (1 mm) of rain is recorded. Data are for rain-gauges with standard exposure.

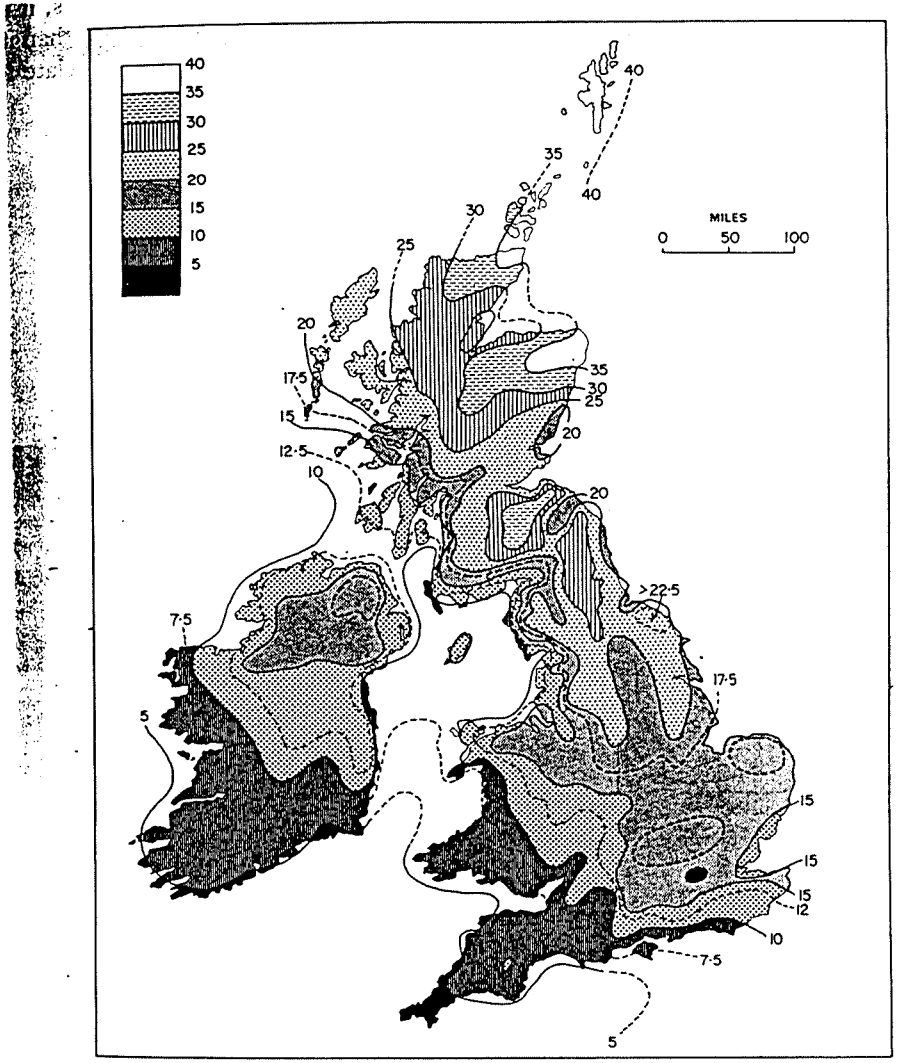


Fig. 6. Distribution of mean annual number of days with snow or sleet observed to fall on ground below 200 ft in the British Isles. For higher levels add to the figure shown by the map one day for each 50 ft above 200 ft. Reproduced from the paper by G. Manley in *Meteorological Magazine*, 1940, by permission of the author and the Controller of Her Majesty's Stationery Office.

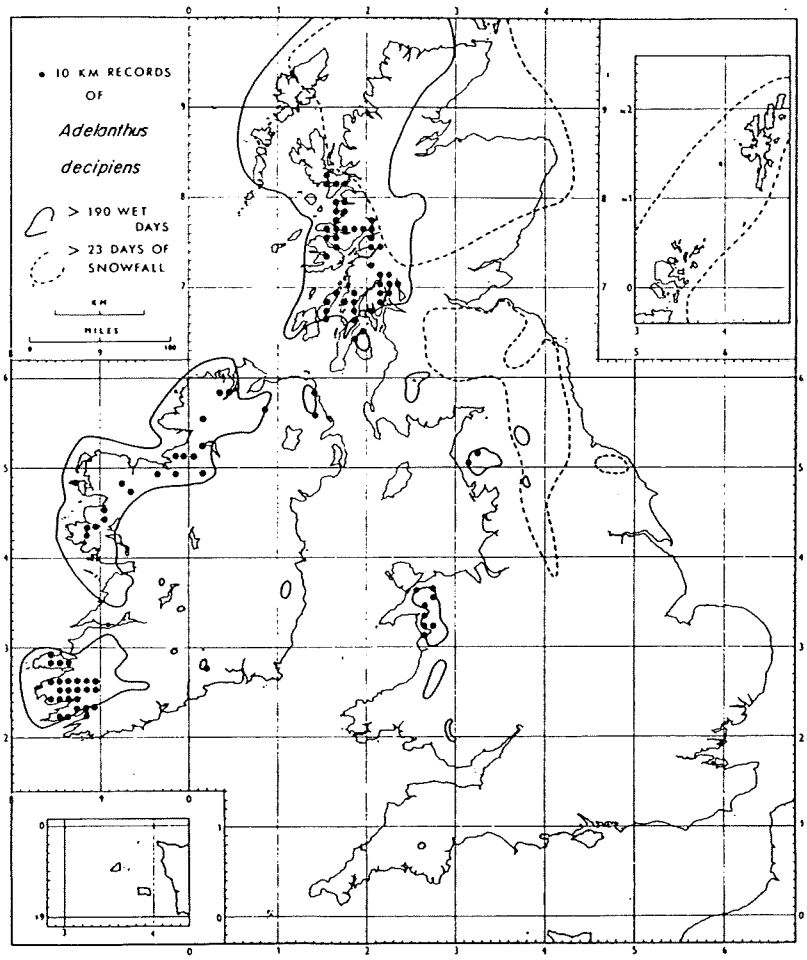


Fig. 8. The distribution of *Adelanthus decipiens* in relation to indices of limiting humidity and temperature. The map suggests that *A. decipiens* is confined to areas where conditions of high atmospheric humidity and freedom from low winter temperatures are both satisfied. Absences or discontinuities of distribution in districts of suitable climate are largely due to destruction of original woodland habitat, or to under-recording. The isolines are interpolated from the maps in Figs. 3 and 6.

TABLE 4.45

Class	BETULO-ADENOSTYLETEA
Order	ADENOSTYLETALIA
Alliance	**Dryoptero–Calamagrostidion purpureae**
Association	*Luzula sylvatica–Vaccinium myrtillus*

	1	2	3	4	5		
Reference Number	B67 106	B67 034	B68 122	B67 057	B68 240		
Map Reference	603 078	334 298	494 531	455 246	535 211		
Altitude (feet)	250	800	1100	1800	1700		
Aspect (degrees)	0	0	0	0	0		
Slope (degrees)	5	10	15	30	40		
Cover (per cent)	100	100	100	100	50		
Plot area (square metres)	2	4	4	4	4	C	D
Calluna vulgaris	4	3	3	.	.	III	2.0
Vaccinium myrtillus	6	5	5	5	5	V	5.2
Blechnum spicant	3	3	5	3	2	V	3.2
Dryopteris borreri	3	3	5	.	.	III	2.2
D. dilatata	4	.	3	.	.	II	1.4
D. filix-mas	3	2	3	.	.	III	1.6
Hymenophyllum wilsonii	3	+	.	.	.	II	0.8
Thelypteris dryopteris	2	.	.	1	.	II	0.6
T. limbosperma	4	6	5	.	.	III	3.0
T. phegopteris	3	1	.	.	.	II	0.8
Agrostis canina	1	.	4	.	4	III	1.8
Anthoxanthum odoratum	.	3	3	3	.	III	1.8
Deschampsia flexuosa	3	3	3	2	5	V	3.2
Festuca ovina	2	.	3	.	.	II	1.0
F. vivipara	.	.	.	2	4	II	1.2
Endymion non-scriptus	2	3	3	.	.	III	1.6
Luzula sylvatica	8	8	8	9	7	V	8.0
Alchemilla alpina	.	1	.	2	3	III	1.2
Cardamine flexuosa	.	+	2	.	.	II	0.6
Digitalis purpurea	.	.	1	.	1	II	0.4
Galium saxatile	.	2	4	3	3	IV	2.4
Hypericum pulchrum	.	2	1	.	.	II	0.6
Oxalis acetosella	3	3	2	3	2	V	2.6
Potentilla erecta	.	2	.	1	.	II	0.6
Viola riviniana	.	2	3	2	.	III	1.4
Breutelia chrysocoma	.	2	.	.	1	II	0.6
Dicranum scoparium	3	3	.	.	1	III	1.4
Hylocomium splendens	.	3	3	.	.	II	1.2
**Hypnum cupressiforme*	1	1	3	.	1	IV	1.2
Isothecium myosuroides	2	1	2	.	.	III	1.0
Mnium punctatum	.	2	1	.	.	II	0.6
Plagiothecium undulatum	2	3	.	.	.	II	1.0
Polytrichum formosum	3	.	1	.	2	III	1.2
Rhacomitrium lanuginosum	.	2	.	4	7	III	2.6
Rhytidiadelphus loreus	3	.	4	.	1	III	1.6
Sphagnum quinquefarium	3	.	3	.	.	II	1.2
†*S. subsecundum*	3	+	.	.	.	II	0.8
Thuidium delicatulum	3	.	2	.	.	II	1.0
T. tamariscinum	3	2	2	3	+	V	2.0
Diplophyllum albicans	2	.	.	.	2	II	0.8
Scapania gracilis	3	1	.	.	.	II	0.8
Total number of species (75)	41	35	34	16	26		

Mean number of species per relevé = 30.4. * var. *ericetorum* in 2 and 3. † var. *auriculatum* in 1 and 2.

ADDITIONAL SPECIES IN LIST

1. *Dryopteris aemula* 4, *Ajuga reptans* 2, *Anemone nemorosa* 3, *Hypericum androsaemum* 2, *Primula vulgaris* 3, *Dicranum majus* 3, *Hylocomium umbratum* 2, *Mnium hornum* 2, *Sphagnum fimbriatum* 3, *Lepidozia pearsonii* 2, *L. pinnata* 1, *Plagiochila spinulosa* 3, *Saccogyna viticulosa* 3.
2. *Luzula multiflora* 3, *Lotus corniculatus* 1, *Sedum rosea* 1, *Atrichum undulatum* 2, *Frullania tamarisci* 1.
3. *Erica cinerea* 1, *Carex binervis* 2, *Eurhynchium praelongum* var. *stokesii* 1, *Mnium undulatum* 1, *Pleurozium schreberi* 2, *Ptilium crista-castrensis* 2.
4. *Thalictrum alpinum* 2, *Thymus drucei* 2.
5. *Cryptogramma crispa* 4, *Dryopteris abbreviata* 4, *Lycopodium selago* 3, *Saxifraga hypnoides* 2, *S. stellaris* 3, *Rhacomitrium fasciculare* 5, *R. heterostichum* +, *Herberta adunca* 1.

LOCALITIES

1. Gillean Burn; 2. Preshal More; 3. Carn Liath; 4. Coire na Creiche; 5. Blà Bheinn.

TABLE 4.47

Class: BETULO-ADENOSTYLETEA
Order: ADENOSTYLETALIA
Alliance: Mulgedion alpini

Association	*Betula pubescens–Cirsium heterophyllum*									*Sedum rosea–Alchemilla glabra*									
	1	2	3	4	5	6	7			8	9	10	11	12	13	14			
Reference number	B67 029	B68 096	B67 077	B67 003	B67 104	B68 061	B67 108			B67 102	B67 104	B67 118	B68 235	B68 110	B68 085	B67 135			
Map reference	370 330	381 609	567 201	611 211	603 077	406 322	373 363			552 214	547 216	517 406	542 215	442 708	485 550	450 608			
Altitude (feet)	100	50	100	150	200	300	300			600	650	800	1200	1300	1450	1500			
Aspect (degrees)	45	45	90	45	45	90	90			0	0	90	315	45	90	315			
Slope (degrees)	10	5	5	5	20	45	30			0	5	5	10	15	5	10			
Cover (per cent)	100	100	100	100	100	100	100			100	100	100	100	100	100	100			
Plot area (square metres)	16	4	16	4	16	4	8	C	D	4	4	4	4	4	4	4	C	D	
Betula pubescens ssp. *odorata*	6	8	8	5	9	8	6	V	7.1	.	.	.	.	.	.	.			
Calluna vulgaris	.	.	.	.	.	1	.	I	0.1	.	2	.	.	.	.	.	I	0.3	
Corylus avellana	8	8	5	8	5	4	8	V	6.6	.	.	.	.	.	.	.			
Fraxinus excelsior	.	.	3	3	.	.	.	II	0.9	.	.	.	.	.	.	.			
Populus tremula	4	6	.	.	.	.	.	II	1.4	.	.	.	.	.	.	.			
Rubus saxatilis	.	.	.	3	.	.	.	I	0.4	.	4	.	3	.	.	.	II	1.0	
Salix atrocinerea	5	.	4	.	4	.	.	III	1.9	.	.	.	.	.	.	.			
Sorbus aucuparia	3	4	3	3	4	5	5	V	3.9	+	.	1	+	.	.	.	III	0.4	
Asplenium trichomanes	.	.	.	.	.	+	2	II	0.4	.	.	.	.	.	.	.			
A. viride	.	.	.	1	.	.	.	I	0.1	.	.	.	1	1	.	.	II	0.3	
Athyrium filix-femina	.	.	.	.	.	5	.	I	0.7	.	6	.	3	.	.	.	II	1.3	
Blechnum spicant	.	.	.	.	2	.	.	I	0.3	.	3	.	1	.	.	.	II	0.6	
Dryopteris borreri	.	3	3	2	.	.	6	III	2.0	3	.	3	5	.	.	.	III	1.6	
D. dilatata	2	.	.	.	.	.	.	I	0.3	.	.	4	.	.	.	.	I	0.6	
D. filix-mas	3	.	.	2	3	.	5	III	1.9	3	.	.	.	.	.	.	I	0.4	
Hymenophyllum wilsonii	.	.	1	.	.	4	.	II	0.7	.	.	.	2	.	.	.	I	0.3	
Polypodium vulgare	.	.	.	.	.	+	.	I	0.1	.	.	2	.	.	.	.	I	0.3	
Polystichum aculeatum	.	.	.	.	.	3	2	II	0.7	.	.	.	.	.	.	.			
Pteridium aquilinum	.	.	3	.	2	.	.	II	0.7	.	.	.	.	.	.	.			
Selaginella selaginoides	.	.	3	.	.	.	.	I	0.4	1	.	.	2	2	1	.	III	0.9	
Thelypteris limbosperma	.	.	4	.	2	.	.	II	0.9	3	.	.	5	.	.	.	II	1.1	
Anthoxanthum odoratum	.	4	4	.	.	.	3	III	1.6	3	3	4	3	.	.	.	III	1.9	
Arrhenatherum elatius	.	3	.	.	.	2	.	II	0.7	.	.	.	.	.	.	.			
Brachypodium sylvaticum	4	4	.	.	.	4	4	III	2.3	.	.	.	.	.	.	.			
Deschampsia cespitosa	4	5	3	6	7	5	.	V	4.3	5	4	5	4	5	3	6	V	4.6	
Festuca ovina	2	.	.	.	.	.	.	I	0.3	.	.	.	4	4	3	5	III	2.3	
F. vivipara	.	.	1	.	.	.	.	I	0.1	.	.	.	1	2	3	.	III	0.9	
Holcus lanatus	.	.	.	.	.	2	.	I	0.3	.	.	3	3	.	.	.	II	0.9	
Poa pratensis	.	.	2	3	.	.	.	II	0.7	.	3	.	.	.	.	.	I	0.4	
Allium ursinum	4	.	.	3	.	.	.	II	1.0	.	.	.	.	.	.	.			
Carex demissa	.	.	1	.	.	.	.	I	0.1	.	.	.	.	5	2	.	II	1.0	
C. flacca	.	2	.	.	.	.	.	I	0.3	.	.	.	.	3	.	.	I	0.4	
C. nigra	.	3	.	.	1	.	.	II	0.6	.	2	.	.	.	.	.	I	0.3	
C. pallescens	1	.	1	.	.	.	.	II	0.3	.	.	.	.	.	.	.			
C. panicea	.	2	.	.	2	.	.	II	0.6	.	2	.	.	.	.	.	I	0.3	
C. pulicaris	.	3	.	2	.	.	.	II	0.7	2	+	.	3	.	.	.	III	0.9	
Endymion non-scriptus	4	2	2	4	3	.	.	IV	2.1	.	3	.	2	.	.	.	II	0.7	
Listera ovata	.	3	.	2	.	.	.	II	0.7	.	.	.	.	.	.	.			
Luzula sylvatica	.	3	.	.	.	7	4	III	2.0	4	4	7	4	4	3	3	V	4.1	
Ajuga reptans	.	.	.	.	2	2	.	II	0.6	.	.	.	.	.	.	.			
Alchemilla alpina	.	.	.	.	.	.	.			+	1	1	3	.	2	.	IV	1.1	
A. glabra	.	4	.	.	.	.	1	II	0.7	.	.	3	2	7	7	7	V	3.7	
Anemone nemorosa	.	.	.	4	.	2	.	II	0.9	5	5	.	.	.	.	.	II	1.4	
Angelica sylvestris	5	4	.	2	.	5	.	III	2.3	5	6	5	6	5	5	3	V	5.0	
Caltha palustris	3	.	.	.	.	.	.	I	0.4	.	.	.	.	.	.	.			
Centaurea nigra	.	5	.	.	.	.	.	I	0.7	.	.	.	.	+	.	.	I	0.1	
Chrysosplenium oppositifolium	3	.	.	.	.	.	3	II	0.9	.	.	.	.	+	2	.	II	0.4	
Cirsium heterophyllum	5	5	6	4	5	5	4	V	4.9	4	3	.	3	.	.	.	III	1.4	
Cochlearia officinalis agg.	.	.	.	.	.	.	.			.	.	.	.	4	4	3	III	1.6	
Conopodium majus	4	.	3	.	.	.	2	III	1.3	.	.	.	.	.	.	.			
Crepis paludosa	.	.	4	4	.	3	.	III	1.6	4	.	.	2	.	.	1	III	1.0	
Epilobium montanum	.	.	.	.	.	2	2	II	0.6	.	.	.	.	3	2	.	II	0.7	
Filipendula ulmaria	7	7	5	6	6	5	5	V	5.9	4	5	5	4	3	3	4	V	4.0	
Galium odoratum	3	.	.	2	.	.	3	III	1.1	.	.	.	.	.	.	.			
G. saxatile	.	.	.	.	.	.	.			.	.	2	3	.	.	.	II	0.7	
Geranium robertianum	.	.	2	.	.	3	3	III	1.1	.	.	.	.	.	.	.			
Geum rivale	3	3	3	3	5	4	3	V	3.4	6	4	6	4	3	6	5	V	4.9	
Heracleum sphondylium	2	.	.	3	.	.	.	II	0.7	.	+	.	.	.	.	.	I	0.1	
Hieracium sp.	.	.	.	.	.	.	.			1	2	2	1	.	.	.	III	0.9	
Hypericum pulchrum	.	.	.	1	.	.	.	I	0.1	1	3	3	3	.	.	.	III	1.4	
Lathyrus montanus	.	.	.	.	.	1	.	I	0.1	.	.	1	.	.	.	.	I	0.1	
Leontodon autumnalis	.	.	.	.	.	.	.			+	.	2	.	.	.	.	II	0.4	
Lysimachia nemorum	.	.	2	.	2	.	.	II	0.6	2	.	.	.	.	.	.	I	0.3	
Oxalis acetosella	2	.	3	.	3	.	2	III	1.4	.	.	1	.	.	.	.	I	0.1	
Oxyria digyna	.	.	.	.	.	.	.			+	2	.	3	.	1	2	IV	1.3	
Pinguicula vulgaris	.	2	1	.	.	.	.	II	0.4	1	2	.	.	1	1	.	III	0.7	
Plantago lanceolata	.	.	.	.	.	.	.			2	.	3	.	.	.	.	II	0.7	
Potentilla erecta	3	.	3	4	.	2	.	III	1.7	1	2	.	1	.	.	.	III	0.6	
Primula vulgaris	3	.	3	4	4	3	3	V	2.9	1	1	2	2	.	.	.	III	0.9	
Prunella vulgaris	.	.	.	.	1	.	.	I	0.1	.	.	.	1	.	.	.	I	0.1	
Ranunculus acris	3	2	3	.	3	.	.	III	1.6	2	.	5	1	3	3	2	V	2.3	
Rumex acetosa	3	.	.	.	.	.	1	II	0.6	3	3	3	3	3	5	3	V	3.3	
Sanicula europaea	.	4	.	5	.	.	.	II	1.3	.	.	.	.	.	.	.			
Saussurea alpina	.	.	.	.	.	.	.			.	.	.	3	7	3	4	III	2.4	
Saxifraga aizoides	.	.	.	.	.	.	.			2	4	4	5	.	2	.	IV	2.4	
S. hypnoides	.	.	.	.	.	.	.			.	.	.	.	3	3	2	III	1.1	
S. oppositifolia	.	.	.	.	.	.	.			.	.	.	1	.	1	.	II	0.3	
Sedum rosea	.	.	.	.	.	.	.			.	5	3	7	5	5	4	V	4.1	
Solidago virgaurea	.	.	.	.	.	3	.	I	0.4	.	2	1	2	1	1	.	IV	1.0	
Succisa pratensis	.	3	.	.	.	3	.	II	0.9	2	1	3	4	.	.	.	III	1.4	
Thymus drucei	.	.	.	.	.	+	.	I	0.1	.	2	4	.	1	2	.	III	1.3	
Trollius europaeus	3	4	.	4	3	.	.	III	2.0	5	5	3	.	.	.	5	III	2.6	
Valeriana officinalis	3	5	.	.	.	4	3	III	2.1	.	.	1	3	3	.	.	III	1.0	

TABLE 4.47 (*cont.*)

Class: BETULO-ADENOSTYLETEA
Order: ADENOSTYLETALIA
Alliance: **Mulgedion alpini**

Association	*Betula pubescens–Cirsium heterophyllum*									*Sedum rosea–Alchemilla glabra*								
	1	2	3	4	5	6	7			8	9	10	11	12	13	14		
Reference number	B67	B68	B67	B67	B67	B68	B67			B67	B67	B67	B68	B68	B68	B67		
Map reference	029	096	077	003	104	061	108			012	014	118	235	110	085	135		
	370	381	567	611	603	406	373			552	547	517	542	442	485	450		
Altitude (feet)	330	609	201	211	077	322	363			214	216	406	215	708	550	608		
Aspect (degrees)	100	50	100	150	200	300	300			600	650	800	1200	1300	1450	1500		
Slope (degrees)	45	45	90	45	45	90	90			0	0	90	315	45	90	315		
Cover (per cent)	10	5	5	5	20	45	30			0	5	5	10	15	5	10		
Plot area (square metres)	100	100	100	100	100	100	100			100	100	100	100	100	100	100		
	16	4	16	4	16	4	8	C	D	4	4	4	4	4	4	4	C	D
Veronica serpyllifolia	.	.	1	.	.	.	.	I	0.1	.	.	1	.	.	.	.	I	0.1
Vicia sepium	.	.	.	.	.	3	3	II	0.9	.	.	.	.	.	.	.		
Viola riviniana	.	.	3	.	2	.	.	II	0.7	.	.	1	.	.	.	.	I	0.1
Acrocladium cuspidatum	.	.	4	.	.	.	.	I	0.6	3	+	.	.	4	4	.	III	1.7
Anoectangium aestivum	.	.	.	.	.	.	.			.	.	.	2	1	3	.	III	0.9
Blindia acuta	.	.	.	.	.	.	.			5	+	.	2	.	4	.	III	1.7
Breutelia chrysocoma	.	.	.	5	.	.	.	I	0.7	4	5	.	4	.	.	.	III	1.9
Bryum pseudotriquetrum	.	.	.	.	.	.	.			3	.	.	.	+	2	1	III	1.0
Cratoneuron commutatum	.	2	.	.	.	.	.	I	0.3	.	1	.	.	4	.	.	II	0.7
Ctenidium molluscum	.	4	2	5	.	.	.	III	1.6	3	5	2	2	4	4	2	V	3.1
Dicranum scoparium	.	.	.	.	2	.	.	I	0.3	.	+	.	.	.	.	.	I	0.1
D. majus	2	1	.	3	.	.	.	III	0.9	1	.	.	1	.	.	.	II	0.3
Distichium capillaceum	.	.	.	.	.	.	.			.	.	1	1	.	.	.	II	0.3
Ditrichum flexicaule	.	.	.	3	.	.	.	I	0.4	.	.	.	.	2	.	.	I	0.3
Drepanocladus uncinatus	.	.	.	.	.	.	.			2	2	.	.	.	1	.	III	0.7
Eurhynchium praelongum	3	.	.	.	.	3	3	III	1.3	.	.	.	.	.	.	.		
E. striatum	4	.	.	.	.	.	3	II	1.0	.	.	.	.	.	.	.		
Fissidens cristatus	.	1	.	.	.	2	.	II	0.4	.	.	.	.	.	.	.		
Hylocomium brevirostre	.	.	3	3	4	4	.	III	2.0	2	2	.	2	.	.	.	III	0.9
H. splendens	.	.	.	4	4	.	.	II	1.1	3	3	5	4	.	.	.	III	2.1
Isothecium myosuroides	.	.	.	2	1	.	.	II	0.4	.	.	.	.	.	.	.		
I. myurum	.	.	.	.	.	.	1	I	0.1	.	.	.	.	+	.	.	I	0.1
Leptodontium recurvifolium	.	.	.	.	.	.	.			.	2	.	.	1	.	.	II	0.4
Mnium hornum	.	.	.	.	1	.	.	I	0.1	.	.	.	+	.	.	.	I	0.1
M. punctatum	.	1	1	.	.	.	.	II	0.3	.	.	.	+	2	2	2	III	1.0
M. undulatum	3	3	.	2	2	2	1	V	1.9	.	.	1	.	.	.	.	I	0.1
Neckera crispa	.	.	.	3	.	.	.	I	0.4	.	.	.	3	.	.	.	I	0.4
Orthothecium rufescens	.	.	.	.	.	.	.			2	.	.	1	.	.	.	II	0.4
Philonotis fontana	.	.	.	.	.	.	.			.	.	.	.	3	3	.	II	0.9
Polytrichum formosum	.	.	.	3	2	.	.	II	0.7	.	.	1	.	.	.	.	I	0.1
Pseudoscleropodium purum	.	.	.	.	2	.	.	I	0.3	.	+	.	+	.	.	.	II	0.3
Rhacomitrium lanuginosum	.	.	.	.	.	.	.			.	.	2	4	.	.	2	III	1.1
Rhytidiadelphus loreus	5	.	3	.	.	.	.	II	1.1	.	.	+	.	.	.	.	III	0.1
R. triquetrus	5	5	6	3	3	5	3	V	4.3	3	3	5	3	.	.	5	IV	2.7
Thuidium delicatulum	3	.	3	2	.	4	.	III	1.7	.	.	.	.	.	.	.		
T. tamariscinum	4	.	3	4	.	3	3	IV	2.4	.	4	.	.	.	1	.	II	0.7
Tortella tortuosa	.	1	.	3	.	.	.	II	0.6	.	2	4	.	+	.	.	III	1.0
Trichostomum hibernicum	.	.	.	.	.	.	.			.	+	.	.	+	.	.	II	0.3
Frullania tamarisci	.	.	.	.	.	.	.			.	+	.	1	.	.	.	II	0.3
Herberta straminea	.	.	.	.	.	.	.			2	2	.	2	2	+	2	V	1.6
Leiocolea bantriensis	.	1	.	.	.	.	.	I	0.1	.	.	.	+	.	.	.	I	0.1
Mastigophora woodsii	.	.	.	.	.	.	.			.	2	.	1	.	.	.	II	0.4
Metzgeria hamata	.	+	.	.	.	.	.	I	0.1	2	2	.	.	.	.	.	II	0.6
Pellia epiphylla	.	.	.	.	.	.	.			3	.	.	+	.	.	.	II	0.6
**Plagiochila asplenioides*	2	.	1	.	.	+	2	III	0.9	.	.	.	1	.	.	1	II	0.3
Riccardia pinguis	.	.	.	.	.	.	.			2	2	.	.	.	1	.	III	0.7
Saccogyna viticulosa	.	1	.	1	.	+	.	III	0.4	.	.	.	.	.	.	.		
Peltigera canina	.	+	.	.	.	.	1	II	0.3	.	.	2	.	.	.	.	I	0.3
Total number of species (194)	41	44	46	43	35	41	32			50	57	56	69	47	44	26		

Mean number of species per relevé = 40.3.
Total number of species in association = 122.

Mean number of species per relevé = 49.8.
Total number of species in association = 156.

* var. *major* in 1, 3, and 6.

ADDITIONAL SPECIES IN LIST

1. *Galium aparine* 3, *Silene dioica* 4, *Stellaria holostea* 3.
2. *Juncus effusus* 2, *Orchis mascula* 2, *Rhinanthus minor* agg. 3, *Tussilago farfara* 4.
3. *Bellis perennis* 2, *Cardamine flexuosa* 2, *Digitalis purpurea* 1, *Atrichum undulatum* 3, *Fissidens taxifolius* 1, *Hookeria lucens* 2.
4. *Scapania aspera* 1.
5. *Ranunculus ficaria* 2, *Sphagnum fimbriatum* 1, *S. quinquefarium* 2.
6. *Lathyrus pratensis* +.
8. *Sphagnum plumulosum* 2, *S. subsecundum* var. *auriculatum* 2, *Conocephalum conicum* 1.
9. *Carex binervis* 1, *Campylium stellatum* 3, *Calypogeia muellerana* +, *Harpalejeunea ovata* +, *Plagiochila spinulosa* 1.
10. *Alchemilla xanthochlora* 2, *Draba incana* 2, *Fragaria vesca* 3, *Galium boreale* 4, *Linum catharticum* 1, *Sedum anglicum* 3, *Silene acaulis* 3, *Trifolium pratense* 3, *Bartramia pomiformis* 1, *Brachythecium plumosum* 1, *Camptothecium lutescens* 2, *Hypnum cupressiforme* var. *tectorum* 2, *Pleurozium schreberi* 1, *Metzgeria conjugata* 1.
11. *Vaccinium myrtillus* 2, *Polystichum lonchitis* 1, *Carex pilulifera* 1, *Bartramia ithyphylla* 1, *Ptilium crista-castrensis* 1, *Preissia quadrata* +, *Radula complanata* 1, *Solorina saccata* 1.
12. *Salix myrsinites* +, *Cystopteris fragilis* 3, *Chamaenerion angustifolium* +, *Rhinanthus borealis* 2, *Thalictrum alpinum* 3, *Fissidens adianthoides* 2, *Plagiobryum zierii* +, *Pohlia wahlenbergii* 1, *Trichostomum crispulum* +.
13. *Poa glauca* 2, *Euphrasia officinalis* agg. 1, *Saxifraga stellaris* 1, *Barbula fallax* 1, *Dicranella palustris* +, *Marsupella emarginata* 1, *Nardia scalaris* 1, *Riccardia sinuata* +.
14. *Bazzania tricrenata* 3, *Lophocolea cuspidata* 2, *Scapania gracilis* 1.

LOCALITIES

1. Loch Harport; 2. Camas Beag; 3. Faoilean; 4. Coille Gaireallach; 5. Gillean Burn; 6. Allt Coir' a' Ghobhainn; 7. Sumerdale River; 8, 9. Allt na Dunaiche; 10. Ben Tianavaig; 11. Coire Uaigneach; 12. Sgùrr Mor; 13. The Storr; 14. Corrie Amadal.

TABLE 4.55

Class	QUERCO-FAGETEA						
Order	FAGETALIA SYLVATICAE						
Alliance	Fagion sylvaticae						
Association	*Fraxinus excelsior–Brachypodium sylvaticum*						
	1	2	3	4	5		
Reference Number	B68 095	B67 099	B67 002	B67 103	B68 330		
Map Reference	393 643	613 118	609 211	607 202	575 200		
Altitude (feet)	100	300	100	100	100		
Aspect (degrees)	315	315	0	0	315		
Slope (degrees)	5	10	5	3	5		
Cover (per cent)	100	100	100	100	100		
Plot area (square metres)	16	16	16	16	4	C	D
Betula pubescens ssp. *odorata*	.	3	4	+	.	III	1.6
Corylus avellana	4	8	8	9	8	V	7.4
Fraxinus excelsior	6	4	5	3	6	V	4.8
Sorbus aucuparia	3	3	3	.	.	III	1.8
Ulmus glabra	7	+	.	.	.	II	1.6
Viburnum opulus	.	.	3	2	.	II	1.0
Athyrium filix-femina	5	.	2	.	.	II	1.4
Blechnum spicant	.	2	2	.	.	II	0.8
Dryopteris filix-mas	5	2	3	2	.	IV	2.4
Pteridium aquilinum	.	1	.	.	3	II	0.8
Agrostis tenuis	3	3	3	3	2	V	2.8
Anthoxanthum odoratum	3	3	3	.	4	IV	2.6
Arrhenatherum elatius	3	.	1	.	3	II	1.4
Brachypodium sylvaticum	6	7	7	6	7	V	6.6
Dactylis glomerata	3	2	2	3	3	V	2.6
Deschampsia cespitosa	.	.	.	3	2	II	1.0
Allium ursinum	3	3	.	.	3	III	1.8
Carex sylvatica	.	1	.	3	.	II	0.8
Endymion non-scriptus	.	4	3	4	.	III	2.2
Anemone nemorosa	.	2	.	1	.	II	0.6
Bellis perennis	.	3	.	1	.	II	0.8
Cardamine flexuosa	+	+	.	.	1	III	0.6
Circaea intermedia	.	3	3	.	.	II	1.2
C. lutetiana	1	.	.	.	3	II	0.8
Conopodium majus	1	2	2	3	.	IV	1.6
Epilobium montanum	2	.	.	.	2	II	0.8
Filipendula ulmaria	7	3	3	3	6	V	4.4
Fragaria vesca	2	1	2	.	3	IV	1.6
Galium saxatile	.	.	2	2	.	II	0.8
Geranium robertianum	3	.	1	2	2	IV	1.6
Geum rivale	.	3	3	4	.	IV	2.0
Heracleum sphondylium	4	.	.	.	5	II	1.8
Lysimachia nemorum	4	1	4	2	.	IV	2.2
Oxalis acetosella	2	4	4	5	3	V	3.6
Potentilla erecta	.	2	.	1	.	II	0.6
Primula vulgaris	3	4	4	5	5	V	4.2
Prunella vulgaris	+	.	1	.	2	II	0.8
Ranunculus acris	2	1	.	.	.	II	0.6
Sanicula europaea	+	2	3	.	.	III	1.2
Vicia sepium	.	.	.	1	2	II	0.6
Viola riviniana	2	2	3	2	3	V	2.4
Ctenidium molluscum	.	1	5	2	5	IV	2.4
Eurhynchium praelongum	1	3	.	.	1	III	1.0
E. striatum	.	2	.	4	3	III	1.8
Fissidens taxifolius	.	+	.	1	.	II	0.4
Hylocomium brevirostre	+	2	.	4	5	IV	2.4
H. splendens	.	3	3	1	.	III	1.4
Isothecium myosuroides	.	.	2	1	.	II	0.6
I. myurum	4	.	3	.	1	III	1.6
Mnium undulatum	2	.	.	2	1	III	1.0
Rhytidiadelphus triquetrus	6	2	2	3	.	IV	2.6
Thuidium delicatulum	.	3	.	4	.	II	1.4
T. tamariscinum	2	3	2	1	2	V	2.0
•*Plagiochila asplenioides*	.	.	.	1	2	II	0.6
Total number of species (95)	40	44	40	44	44		

• var. *major* in 4 and 5. Mean number of species per relevé = 42.4.

ADDITIONAL SPECIES IN LIST

1. *Angelica sylvestris* 4, *Chrysosplenium oppositifolium* 5, *Digitalis purpurea* 2, *Galium aparine* 1, *Silene dioica* 3, *Tussilago farfara* +, *Urtica dioica* 3.
2. *Prunus padus* 3, *Helictotrichon pratense* 1, *Glechoma hederacea* 2, *Rhytidiadelphus loreus* 2, *Lophocolea bidentata* 1.
3. *Lonicera periclymenum* +, *Gymnadenia conopsea* 1, *Listera ovata* 2, *Lathyrus montanus* 1, *Melampyrum pratense* 1, *Breutelia chrysocoma* 4, *Polytrichum formosum* 3.
4. *Thelypteris phegopteris* 1, *Ajuga reptans* 2, *Veronica chamaedrys* 3, *Atrichum undulatum* 1, *Fissidens cristatus* 1. *Pseudoscleropodium purum* 2, *Lejeunea cavifolia* 1, *Pellia epiphylla*, *Scapania aspera* 1.
5. *Rubus fruticosus* agg. 1, *Asplenium trichomanes* 1, *Senecio jacobea* 2, *Succisa pratensis* 2, *Anomodon viticulosus* 3, *Bryum capillare* 1, *Camptothecium sericeum* 3, *Rhytidiadelphus squarrosus* 2, *Thamnium alopecurum* 2, *Tortella tortuosa* 2, *Marchesinia mackaii* 2, *Metzgeria pubescens* 1, *Peltigera canina* 1.

LOCALITIES: 1. River Rha, Uig; 2. Tokavaig; 3, 4. Coille Gaireallach; 5. Torrin.

Loch Ashik

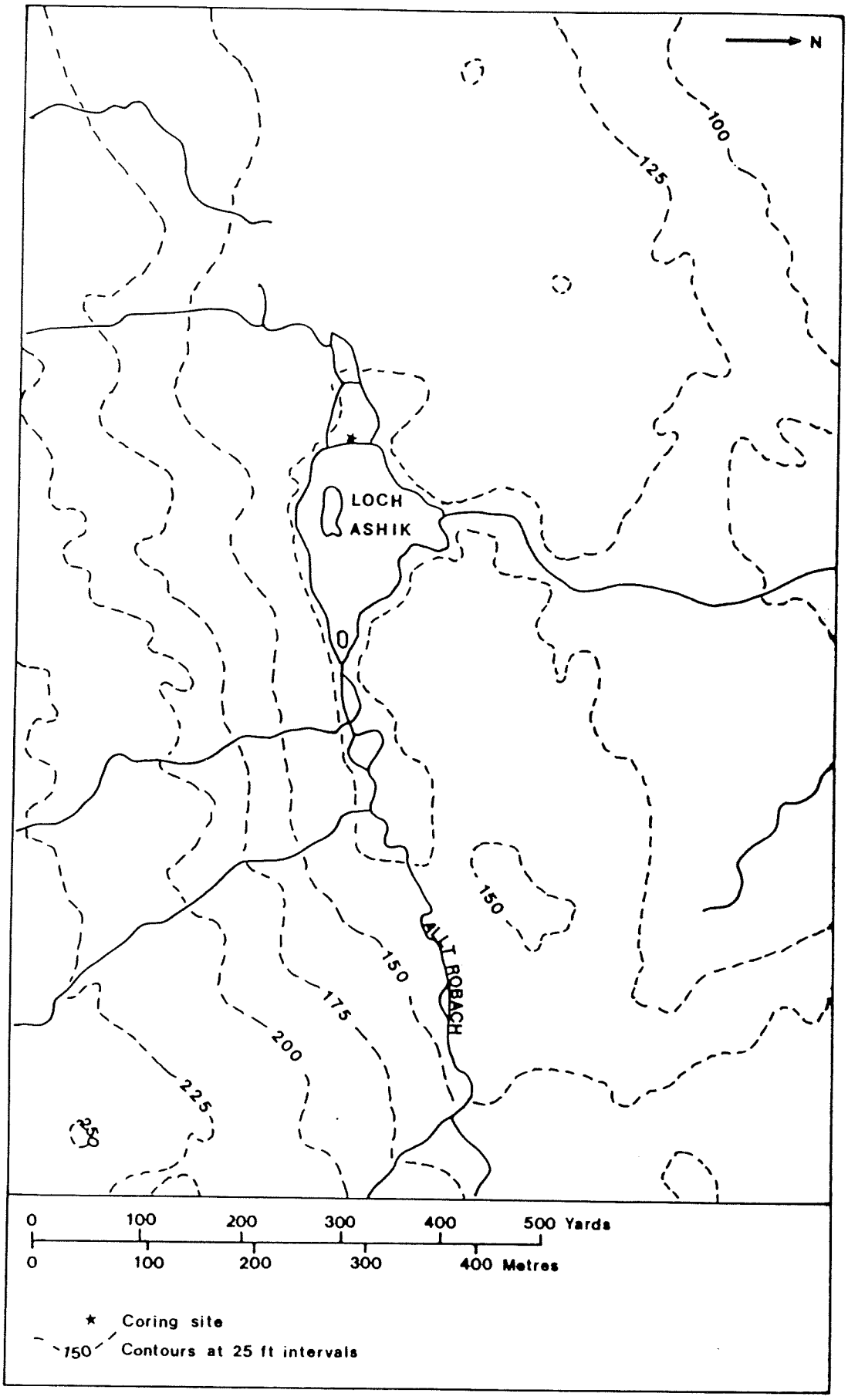


Figure 45. Map of the Loch Ashik area showing the coring site and the surrounding topography.

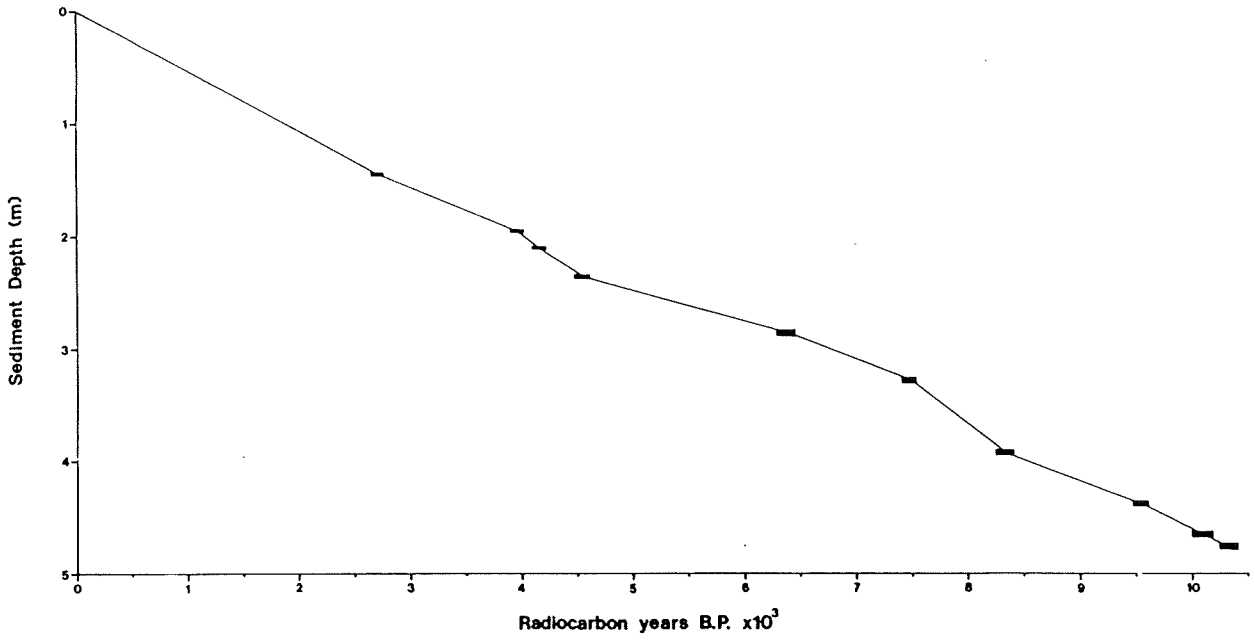


Figure 48. Plot of radiocarbon age against sediment depth for the Loch Ashik core. The depth of sediment used for each sample and the possible error of the age determinations are shown by the vertical and horizontal components of the shaded rectangles.

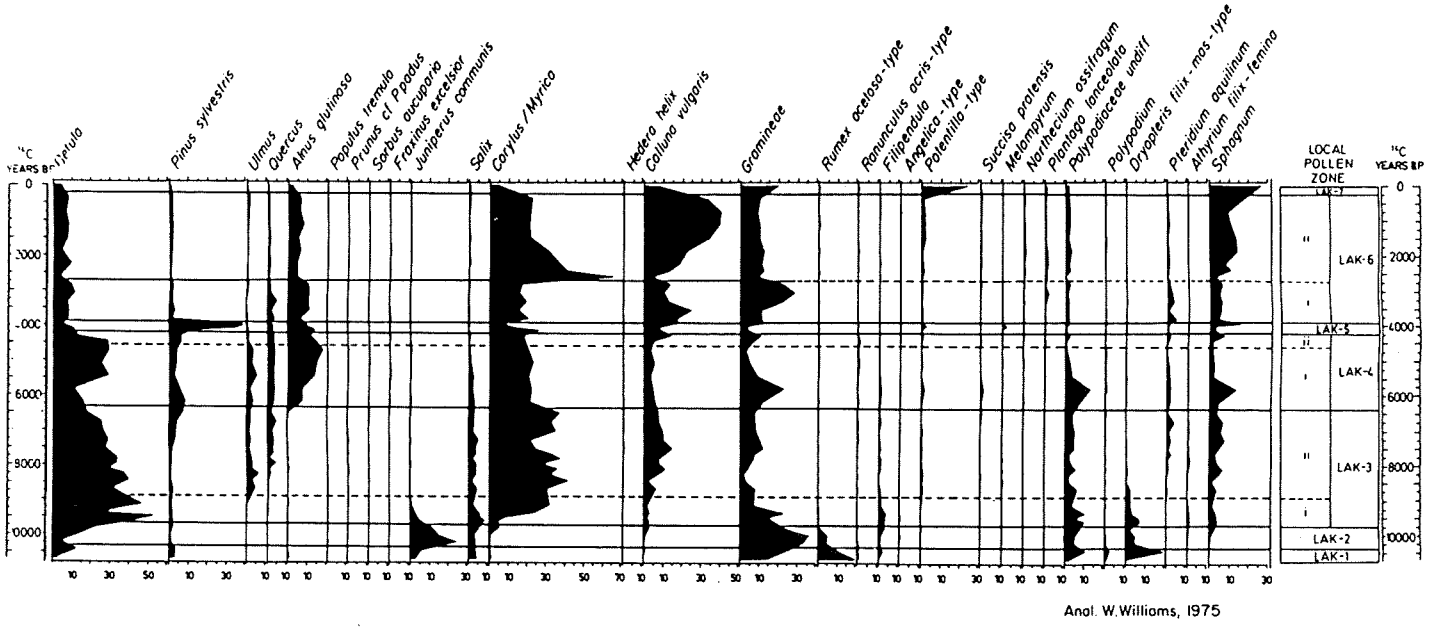


Figure 10. Post-glacial pollen diagram from Loch Ashik, Isle of Skye. Major pollen and spore types only are plotted against radiocarbon age based on ten radiocarbon dates. Scale at base of diagram shows percentages for black silhouettes. All values are percentages of total determinable pollen. Undiff. = undifferentiated.

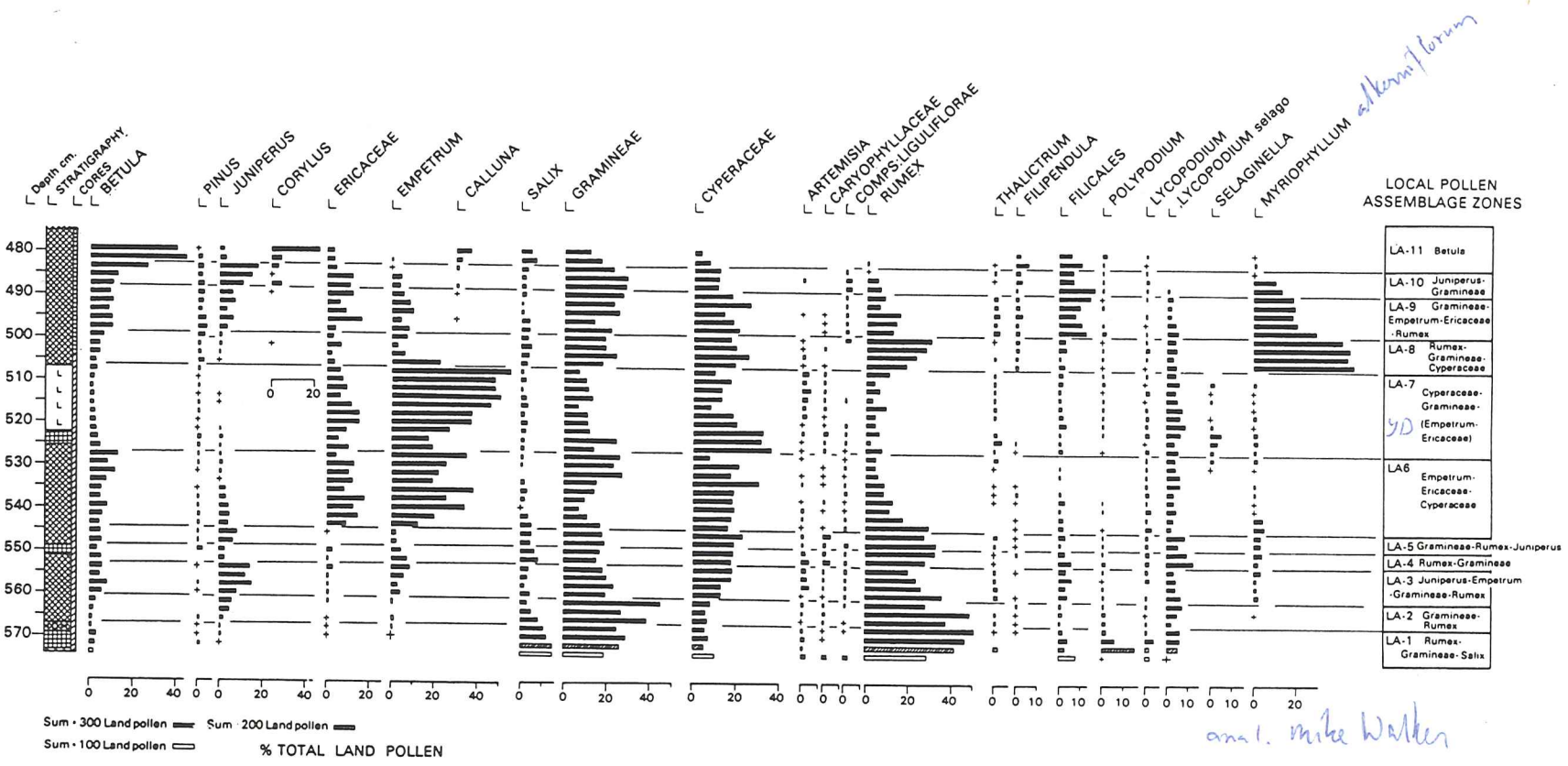


FIG. 4. Percentage pollen diagram from Loch Ashik.

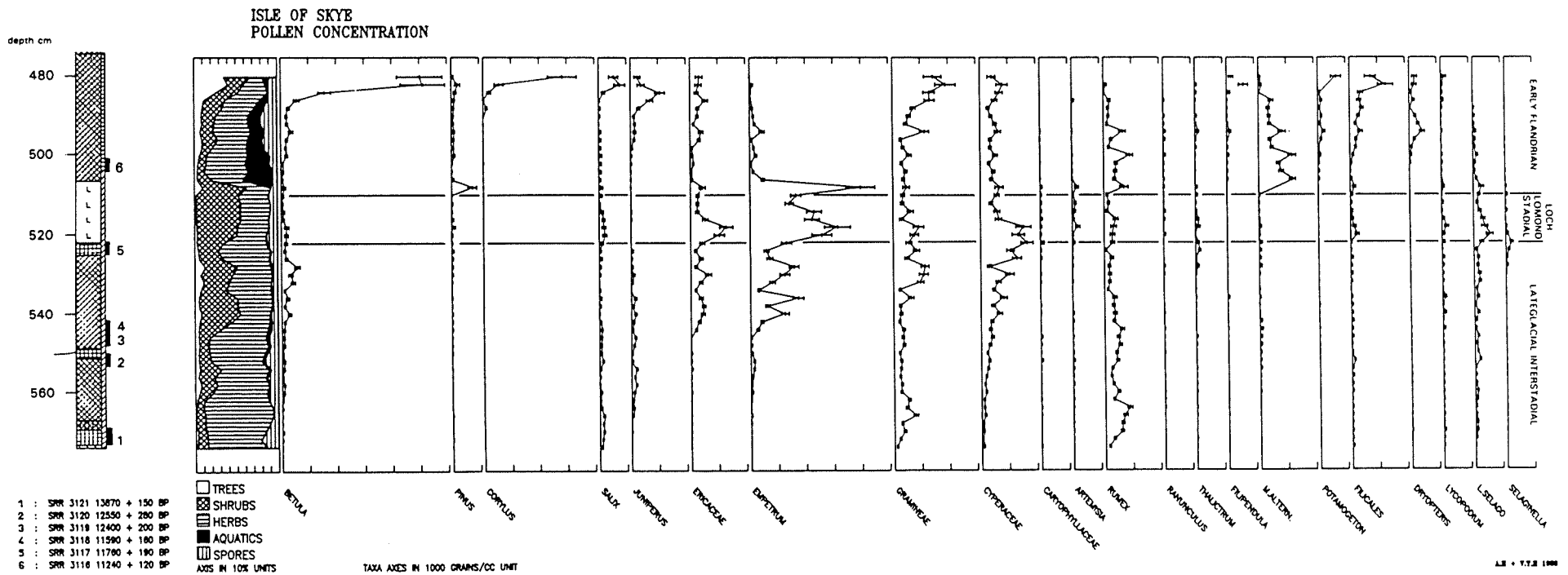


FIG. 8. Pollen concentration diagram from Loch Ashik.

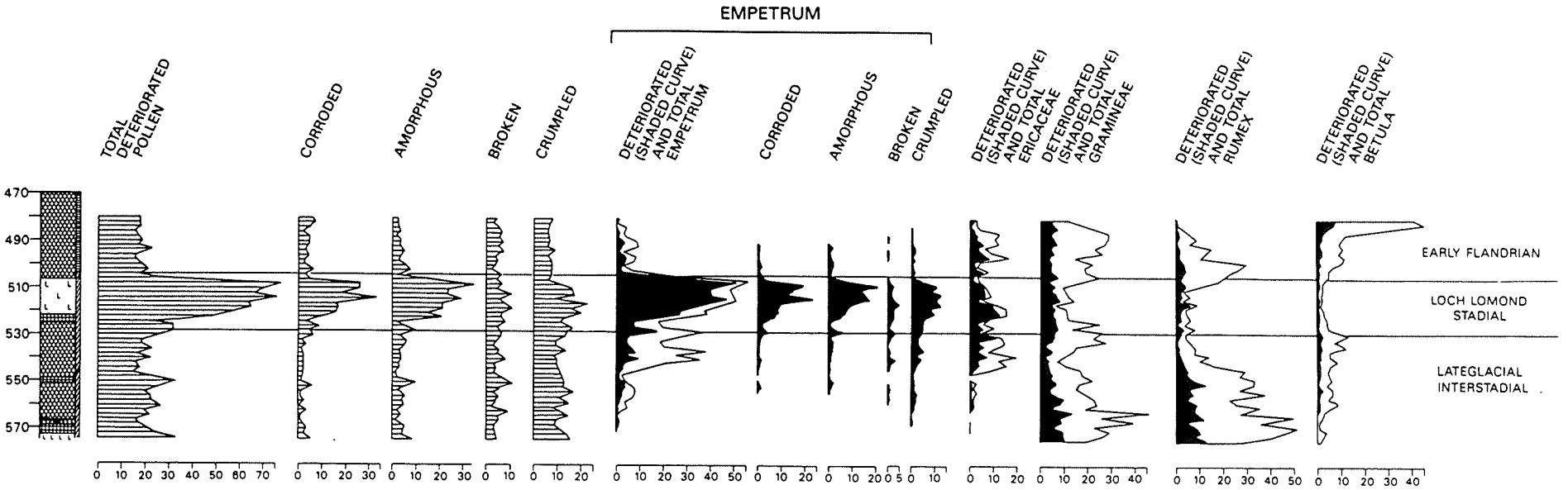


FIG. 12. Deteriorated pollen diagram from Loch Ashik.

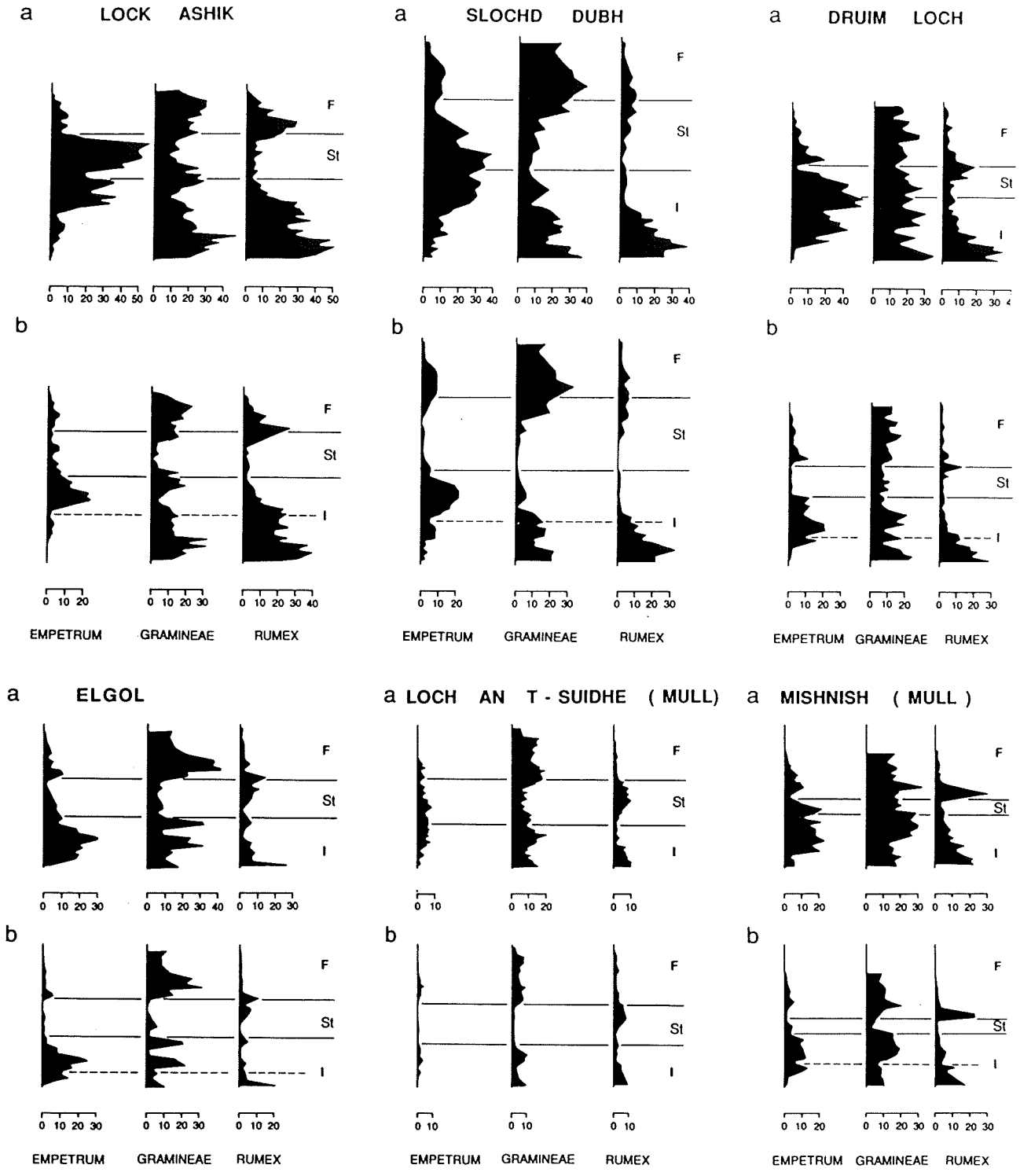


FIG. 19. Lateglacial and early Flandrian records from profiles on Skye and Mull showing (a) total pollen frequencies and (b) percentages of well-preserved grains of *Empetrum*, Gramineae and *Rumex*. I: Lateglacial Interstadial; St: Loch Lomond Stadial; F: Flandrian. Dashed line indicates the early/mid Interstadial climatic oscillation. For further explanation, see text.

Table 3 Radiocarbon dates from Loch Ashik and Varragill

SURRC Ref No	Mean sample depth (cm)	Mean sample thickness (cm)	$\delta^{13}C_{PDB}$ ‰	Radiocarbon age (yr BP)
Loch Ashik				
SRR-3116	506	3	−22.8	11240 ± 120
SRR-3117	526	3	−24.6	11760 ± 190
SRR-3118	545	3	−23.7	11590 ± 160
SRR-3119	548	3	−23.5	12400 ± 200
SRR-3120	553	3	−23.7	12550 ± 280
SRR-3121	572	4	−23.7	13870 ± 150

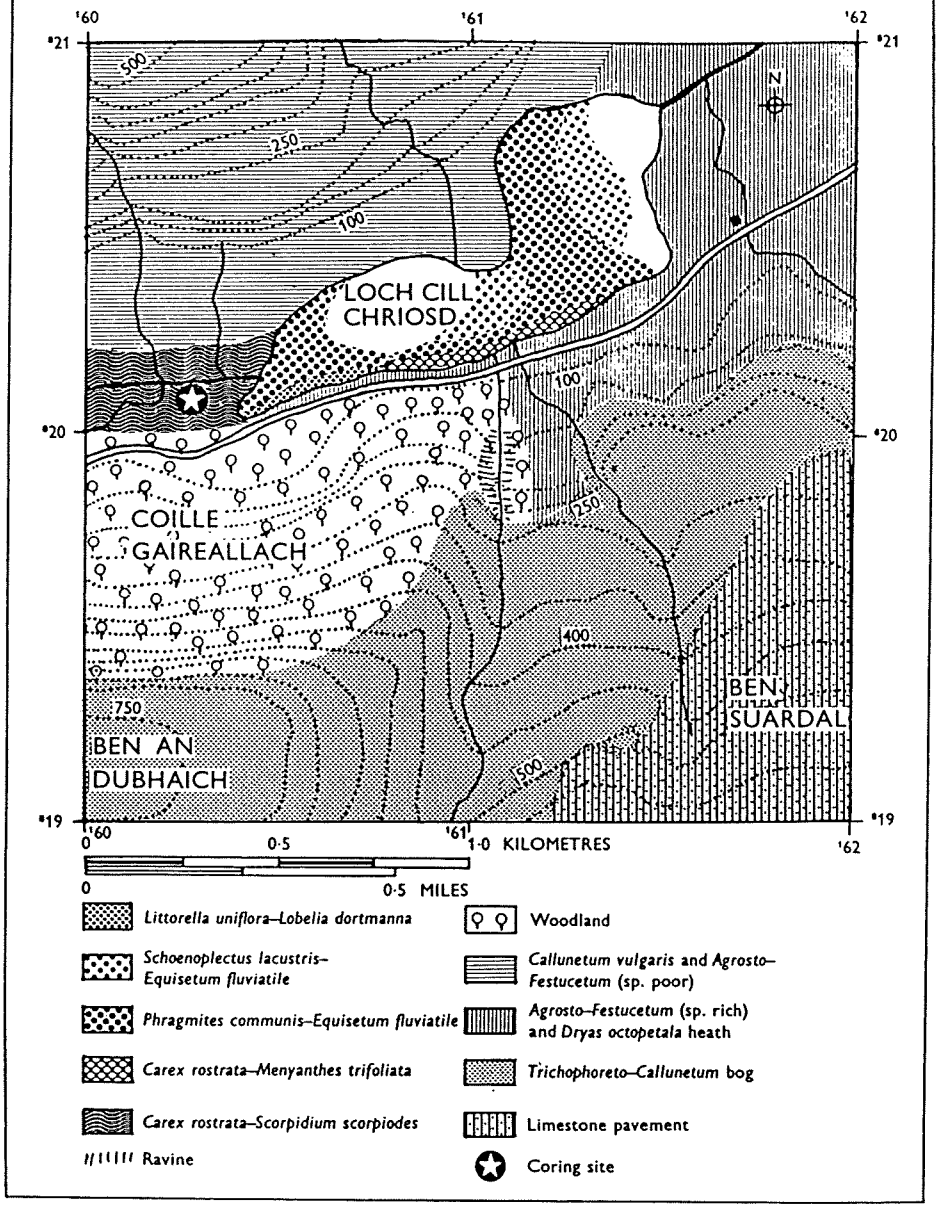


Figure 19. Sketch map of Loch Cill Chriosd and its surrounds, showing vegetation, topography, and the location of the coring site. Contours are shown in feet, and the coordinates refer to the National Grid. Vegetational types follow Chapter 4.

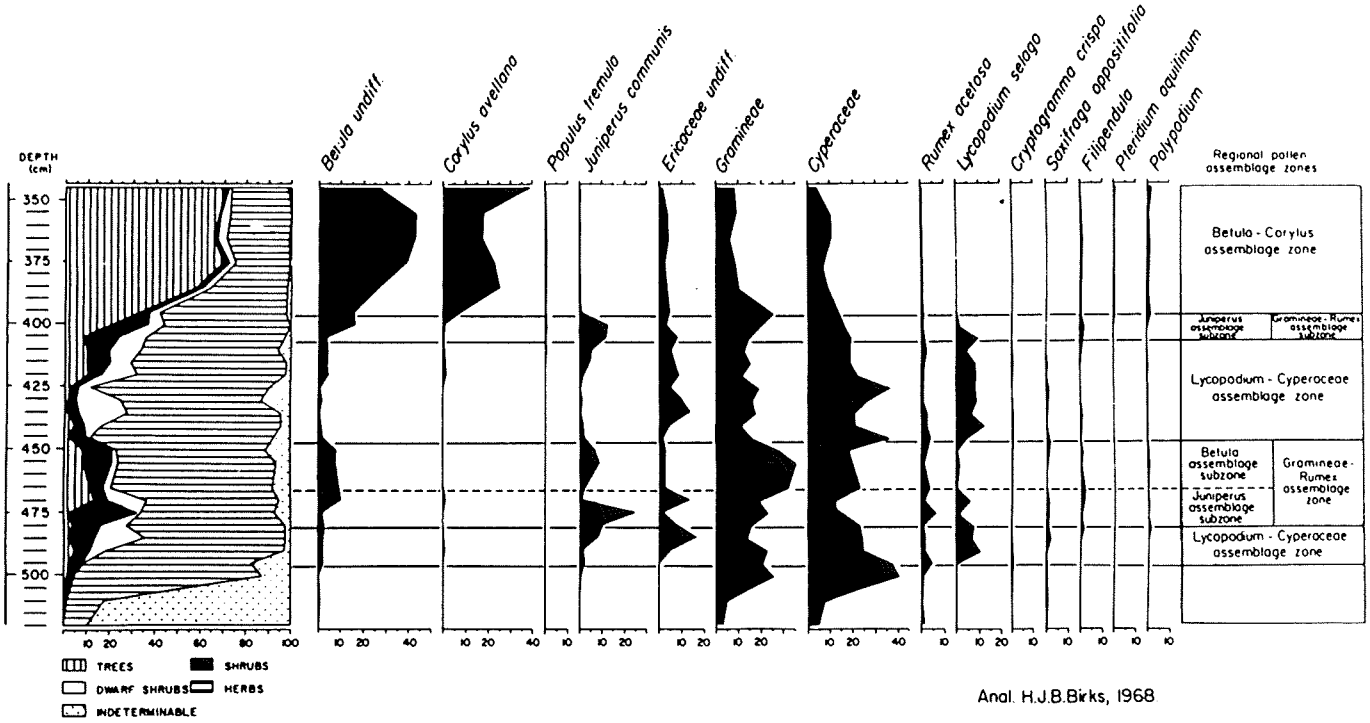


Figure 4. Late-glacial and early post-glacial pollen diagram from Loch Cill Chriosd, Isle of Skye. Major pollen and spore types only are shown. Scale at base of diagram shows percentages for black silhouettes. All values are percentages of total determinable and indeterminable pollen and spores. Undiff. = undifferentiated.