

## **IMPORTANT AREAS FOR BRYOPHYTE DIVERSITY IN IRELAND**

(Red data book of European bryophytes, European Committee for Conservation of Bryophytes, Trondheim, 1995.)

Although not as bryologically well known as Britain, Ireland has had a long history of bryological recording, and is well studied compared to many European countries. The Killarney area in particular has been a popular place for bryologists over the last 150 years. The west of Ireland is of course extremely rich in internationally rare oceanic species. The famous Irish bogs are bryologically interesting, but have declined because of commercial exploitation

Northern Ireland is included here.

ASI = Area of Scientific Interest (statutory designation).

### **Achill Island, Mayo.**

**Grid Ref: 53° 58'N 10° 00'W**

**Area: ca. 250 km<sup>2</sup>**

**Protected status: Mostly not protected (Two small machair areas within ASIs).**

### **Description**

This mountainous island on the western fringe of Europe has a highly oceanic climate, with an average annual precipitation in excess of 1000mm, and temperatures ranging from above 6°C in January to ca. 15°C in July. Much of the island is covered by heath and moorland. There are also excellent examples of machair and dune slacks. Other habitats include sea cliffs, block scree, wet pastures and montane flushes.

### **Bryological Interest**

This site is of very high importance for montane oceanic bryophytes, with particularly good examples of the Northern Atlantic mixed hepatic mat community: species such as *Anastrepta orcadensis*, *Scapania ornithopodioides*, etc., are recorded as well as the ones on the Red Data List. This community descends to an unusually low altitude here. There are also fine machair bryophyte communities, with *Bryum marratii*, *B. turbinatum*, etc. Other species of interest include *Cephalozia catenulata*, *Colura calyptrifolia*, *Geocalyx graveolens*, *Lophozia gillmanii*, *Moerckia hibemica*, *Odontoschisma elongatum*, *Plagiochila killarniensis*, *Dicranodontium uncinatum*, etc.

### **Species on Red List**

Liverworts: *Acrobolbus wilsonii*, *Adelanthus lindenbergianus*, *Bazzania pearsonii*, *Cephalozia crassifolia*, *Fossombronia fimbriata*, *F. incurva*, *Haplomitrium hookeri*, *Mastigophora woodsii*, *Pallavicinia lyellii*, *Petalophyllum ralfsii*, *Radula carringtonii*, *Scapania nimbosea*, *Sphenolobopsis pearsonii*, *Telaranea nematodes*.

Mosses: *Anoetangium warburgii*, *Bryum calophyllum*, *B. riparium*, *Campylopus shawii*, *C. setifolius*, *Cyclodictyon laetevirens*, *Weissia perssonii*.

### **Threats and conservation**

Public pressure and holiday development threaten the machair areas, but much of the wild interior of the island should be relatively secure. As this is such a large area where the more destructive modern agricultural practices have had relatively little impact, any misguided attempts to 'improve' it through (for example) EC grants for land drainage etc should be discouraged. Overgrazing is a potential threat that has

already badly damaged other 'mixed hepatic mat' sites in Ireland. National Park status for the island should be considered. Spread of rhododendron is a threat locally.

### **Ben Bulbin ranges, Sligo.**

**Grid Ref: 54° 23'N 8° 29'W**

**Area: ca. 45 km<sup>2</sup>**

**Protected status: Partly ASI.**

### **Description**

This group of hills in the west of Ireland is dominated by Truskmore, at 697m and the characteristic table-top shape of Ben Bulbin, at 526m. The substrate is carboniferous limestone, and there is a 460 m cliff on the western side that drops down to the Atlantic coast. This site has a rich montane calcicole flora, particularly at the higher altitudes. Important habitats include cliff faces and rock crevices, ravines and gorges and calcareous flushes,

### **Bryological interest**

This site is extremely important for calcicole montane bryophytes and montane oceanic communities. The flora includes several bryophytes with relict distributions. Some of the more interesting species are; *Barbilophozia kunzeana*, *Pedinophyllum interruptum*, *Scapania cuspiduligera*, *Cinclidium stygium*, *Dicranella grevilleana*, *Didymodon icmadophilus*, *Encalypta* sp., *Hamatocaulis vernicosus*, *Myurella julacea*, *Platydictya* spp. *Seligeria acutifolia*, *S. oelandica*, *S. trifaria*, *Timmia austriaca*, *T. norvegica*, *Tortula princeps* and *Ulota calvescens*. The occurrence of *Didymodon maximus* is particularly noteworthy. This moss was until recently thought to be endemic to the Ben Bulbin range, but has now been found in British Columbia. .

### **Species on Red List**

Liverworts: *Dumortiera hirsuta*, *Lejeunea mandonii*.

Mosses: *Brachydontium trichodes*, *Campylostelium saxicola*, *Cyclodictyon laetevirens*, *Daltonia splachnoides*, *Didymodon maximus*, *Hymenostylium insigne*.

### **Threats and conservation**

No significant threats known at present, but care should be taken that the unique flora of this area is not adversely affected by insensitive application of EC grants. Grazing is heavy but does not affect the most important parts of the site significantly.

### **Killarney (including woodlands around Killarney Lakes, Macgillicuddy's Reeks, Cummeenduff Glen, Owenreagh River, Galways River, N. side of Mangerton Mt.), Kerry.**

**Grid Ref 52° 00'N 9° 30'W**

**Area: 44 km<sup>2</sup>**

**Protected status: Mostly National Park.**

### **Description**

This site includes the famous *Quercus petraea*-*Ilex aquifolium* woodlands around the Lakes of Killarney, well-known to botanists, and the surrounding area. The climate is Strongly oceanic, with more than 1500mm average annual rainfall, and temperatures of over 6°C in January to ca. 16°C in July. The geology is sandstone to the south and west, and carboniferous limestone to the north, so the flora is varied. The woodland is

cut with ravines with streams and waterfalls. The nearby hillsides and flushes are also very rich.

This is the locus classicus for the Killamey fern *Trichomanes speciosum*.

### **Bryological interest**

Very well-known to bryologists, these woods and hillsides are some of the richest areas in Britain and Ireland, with an excellent oceanic flora that includes primarily Macaronesian species not found further north. There are also good examples of the Northern Atlantic mixed hepatic mat community on the hillsides. In Ireland woodland is a scarce resource, most of it having been felled in historical times, and this makes these oakwoods the more valuable. Notable oceanic species include *Adelanthus decipiens*, *Aphanolejeunea microscopica*, *Drepanolejeunea hamatifolia*, *Frullania* spp., *Harpalejeunea molleri*, *Jubula hutchinsiae*, *Lepidozia cupressina*, *L. pearsonii*, *Leptoscyphus cuneifolius*, *Lophocolea fragrans*, *Marchesinia mackaii*, *Metzgeria leptoneura*, *Plagiochila* spp., *Radula* spp., *Rhynchostegium alopecuroides*, *Sematophyllum micans*, *Ulota calvescens*, *U. coarctata*, etc. *Hamatocaulis vernicosus* has also been recorded.

### **Species on Red List**

Liverworts: *Acrobolbus wilsonii*, *Bazzania pearsonii*, *Cephalozia crassifolia*, *Dumortiera hirsuta*, *Haplomitrium hookeri*, *Lejeunea flava* ssp. *moorei*, *L. hibernica*, *Mastigophora woodsii*, *Pallavicinia lyellii*, *Plagiochila atlantica* (type locality), *Radula carringtonii*, *R. holtii*, *Scapania nimbosea*, *Sphenolobopsis pearsonii*, *Telaranea nematodes*.

Mosses: *Campylopus setifolius*, *C. shawii*, *Campylostelium saxicola*, *Cyclodictyon laetevirens*, *Daltonia splachnoides*, *Glypomitrium daviesii*, *Grimmia retracta*, *Orthotrichum sprucei*, *Paraleplodontium recurvifolium*, *Sematophyllum demissum*.

### **Threats and conservation**

The main threats to the woodlands are rhododendron invasion and overgrazing by livestock. There is probably little threat to the more open habitats, but bryophyte communities should be monitored periodically.

### **Brandon Mountain, Kerry (Mostly ASI)**

**Grid Ref.: 52° 12'N 10° 12'W**

### **Main habitat and bryological interest:**

Oceanic montane site with a predominantly acidic sandstone substrate, but with a few pockets of more base-rich rocks. Good representation of oceanic bryophyte communities, including the northern Atlantic mixed hepatic mat. Notable species include *Colura calyptrifolia*, *Eremonotus myriocarpus*, *Gymnomitrium corallioides*, *Lejeunea eckloniana*, *Marsupella adusta*, *Oedipodium griffithianum*, *Philonotis rigida* and *Sematophyllum micans*. Threats are few, but overgrazing may be significant.

### **Species on Red List:**

*Acrobolbus wilsonii*, *Bazzania pearsonii*, *Dumortiera hirsuta*, *Lejeunea flava* ssp. *moorei*, *L. hibernica*, *L. mandonii*, *Mastigophora woodsii*, *Pallavicinia lyellii*, *Radula carringtonii*, *R. voluta*, *Scapania nimbosea*, *Sphenolobopsis pearsonii*, *Telaranea nematodes*, *Campylopus setifolius*, *C. shawii*, *Campylostelium saxicola*, *Daltonia*

splachnoides, *Glyphomitrium daviesii*, *Grimmia retracta*, *Hedwigia integrifolia*, *Oxystegus hibernicus*, *Paraleptodontium recurvifolium*, *Philonotis cernua*.

**Dooaghtry and Mweelrea, Mayo**

**Grid Ref.: 53° 38'N 9° 50'W**

Main habitat and bryological interest:

One of the best machair areas in Ireland here backs onto oceanic heathland on hillsides, with examples of the Northern Atlantic mixed hepatic mat community. *Colura catyptrifolia* occurs here. The bryophytes are in need of further survey work. Overgrazing by livestock may be a threat at this site.

Species on Red List:

*Bazzania pearsonii*, *Fossombronina fimbriata*, *Lejeunea hibernica*, *Mastigophora woodsii*, *Petalophyllum ralfsii*, *Scapania nimbosa*, *Bryum riparium*, *Campylopus setifolius*, *Glyphomitrium daviesii*, *Oxystegus hibernicus*, *Paraleptodontium recurvifolium*, *Philonotis cernua*, *Plagiochila carringtonii*.

**Glengarriff, Cork.**

**Grid Ref.: 51° 47'N 9° 35'W**

**Main habitat and bryological interest:**

*Quercus-Ilex* woodland with good examples of oceanic woodland bryophyte communities. Species include *Colura catyptrifolia*, *Fissidens limbatus*, *F. polyphyllus*, *Sematophyllum micans*, etc.

**Species on Red List:**

*Telaranea nematodes*, *Daltonia splachnoides*, *Hedwigia integrifolia*, *Sematophyllum demissum*.

**Gort-Coroffin area, Burren**

**Grid Ref.: 53° 00'N 9° 00'W**

**Main habitat and bryological interest:**

Oceanic limestone area, with limestone pavement, grassland, fens, flushes, turloughs and loughs, hazel scrub, etc. Species of interest include *Colura calyptifolia*, *Bryum neodamense*, *Campylium elodes*, *Calliergon trifarium*, *Drepanocladus lycopodioides*, *D. sendtneri*, *Hamatocaulis vernicosus*, *Tortella densa*, *Ulota calvescens*. The area is under some threat from water pollution and drainage.

**Species on Red List:**

*Dumortiera hirsuta*.

**Magilligan to Port Stewart dunes, Derry.**

**Grid Ref.: 55° W N 6° 57'W**

**Main habitat and bryological interest:**

Active coastal dune systems with good dune slack communities, including *Bryum neodamense*, *B. uliginosum*, *B. marratii*, *Catascopium nigrum*, *Drepanocladus*

lycopodioides, *D. sendtneri*, etc. This area is under some threat from public pressure, holiday developments and army manoeuvres.

**Species on Red List:**

*Petalophyllum ralfsii*.

**West Fermanagh woodlands & grasslands**

**Grid Ref.;** 54° 27'N 7° 45'W

**Main habitat and bryological interest:**

Although in need of further survey work, this limestone area is clearly very rich, with woodland, grassland, limestone pavement, etc, with a strong oceanic influence.

Interesting species, some not known elsewhere in Ireland, include; *Pedinophyllum interruptum*, *Fissidens rufulus*, *Homomallium incurvatum*, *Seligeria acutifolia*, *Tortella densa*, *T.fragilis*.

**Species on Red List:**

*Hymenostylium insigne*.

**West Mayo blanket bogs**

**Grid Ref.:** ca. 54° 10'N 9° 35'W

**Main habitat and bryological interest:**

One of the best and most extensive areas of blanket bog in Ireland, interspersed with occasional calcareous flushes, making the bryophyte flora much more varied.

Interesting species include *Lophozia rutheana*, *Hamatocaulis vernicosus*. *Sphagnum subsecundum* and *Tomentypnum nitens*. *Meesia triquetra* has unfortunately vanished from the area.

**Species on Red List:** none recorded.

**References** Rothero 1988, Kelly & Lockhart 1984, Rothero 1984, Synnott 1988.

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