

Flora Protection Order - bryophytes

Myurella julacea

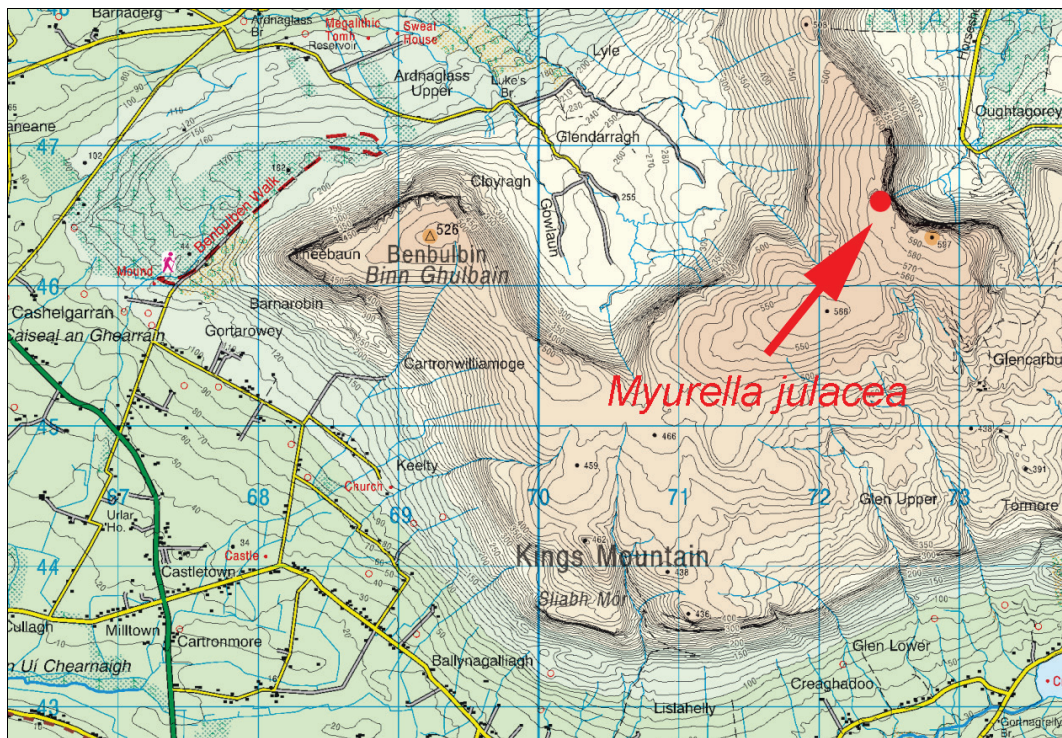
Status: Endangered; listed on the Flora Protection Order

Location: Annacoona, Co. Sligo

Species Records

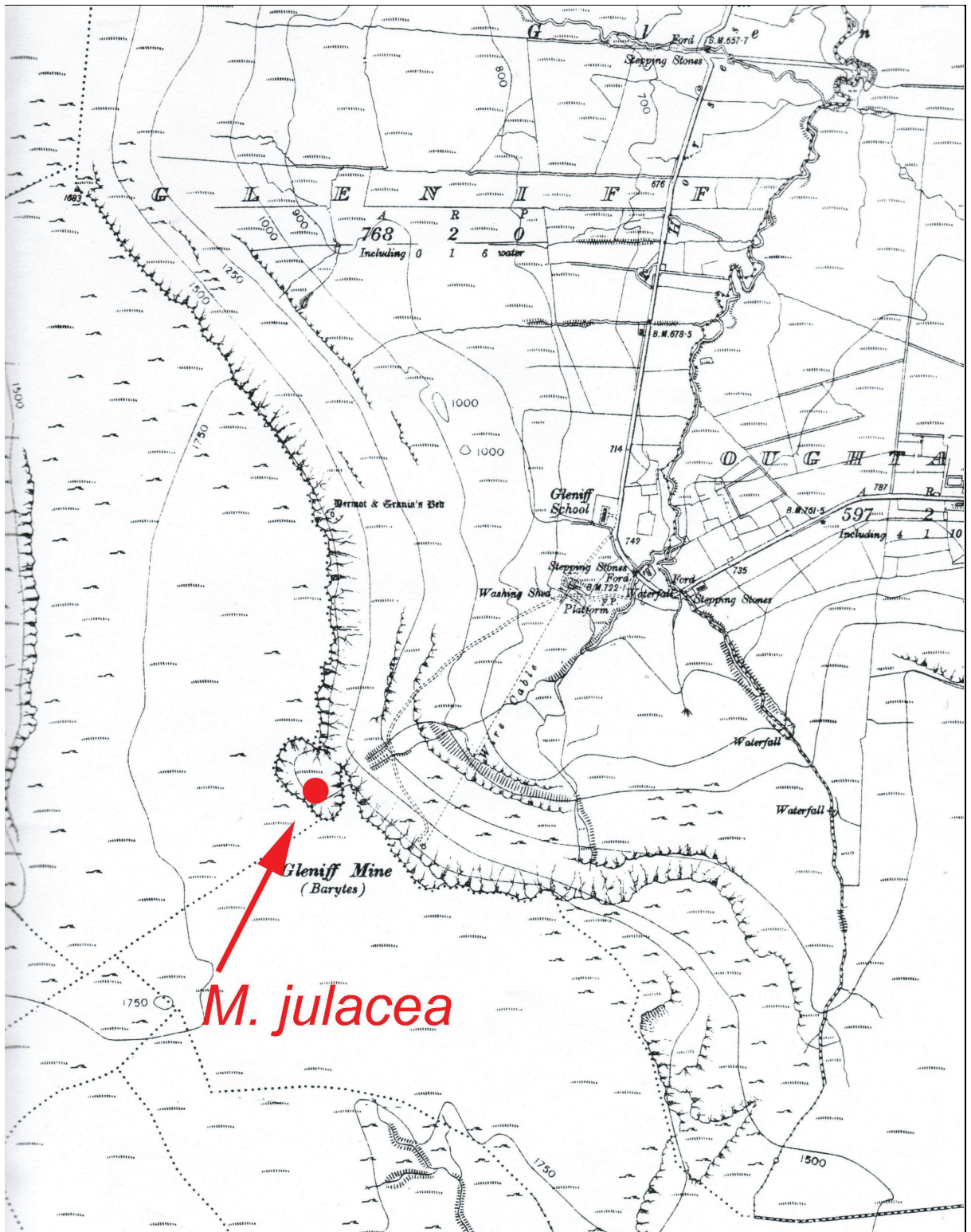
Taxon	Vice County number	Taxon Site	Locality / habitat	Grid Reference	Date	Recorder	Protected site
<i>Myurella julacea</i>	28	02	Gleniff - Annacoona cliffs: shaley, unstable layered limestone, in crevice between layers in sheltered 'Crater' at top of cliffs, N-facing; ca 535 m alt.	G72414660	2003.07.02	Hodgetts, N.G.	SAC000623

Location (1:50,000 Discovery map)



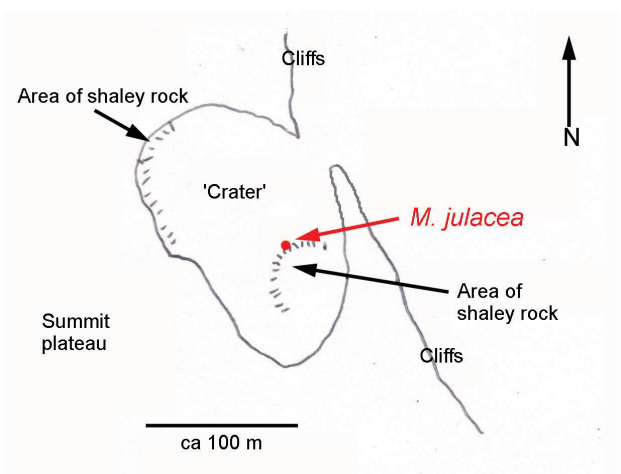
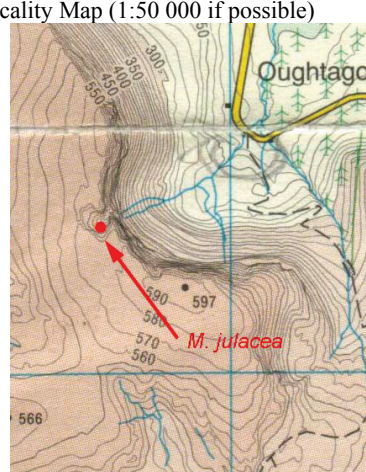
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Location (6" map) - Rare and Threatened Bryophyte Survey 2003

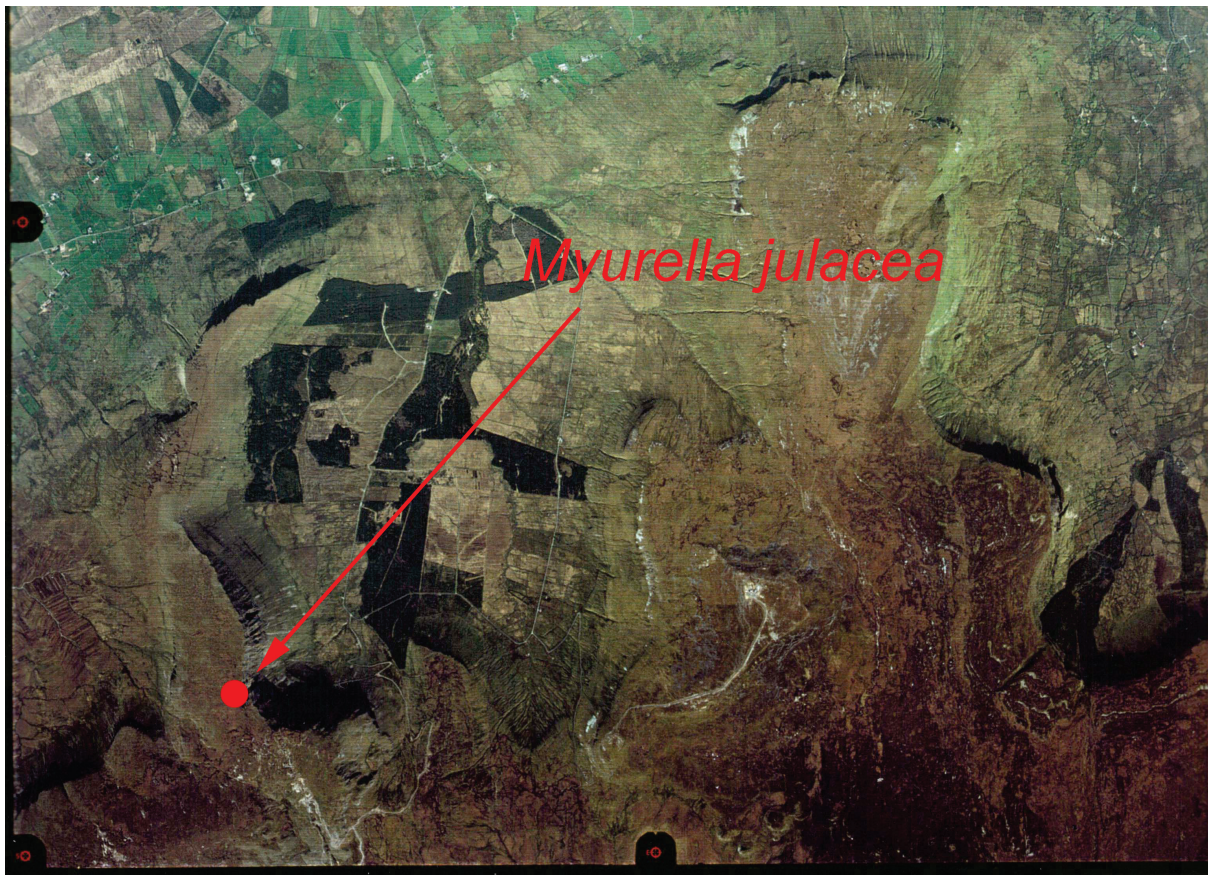


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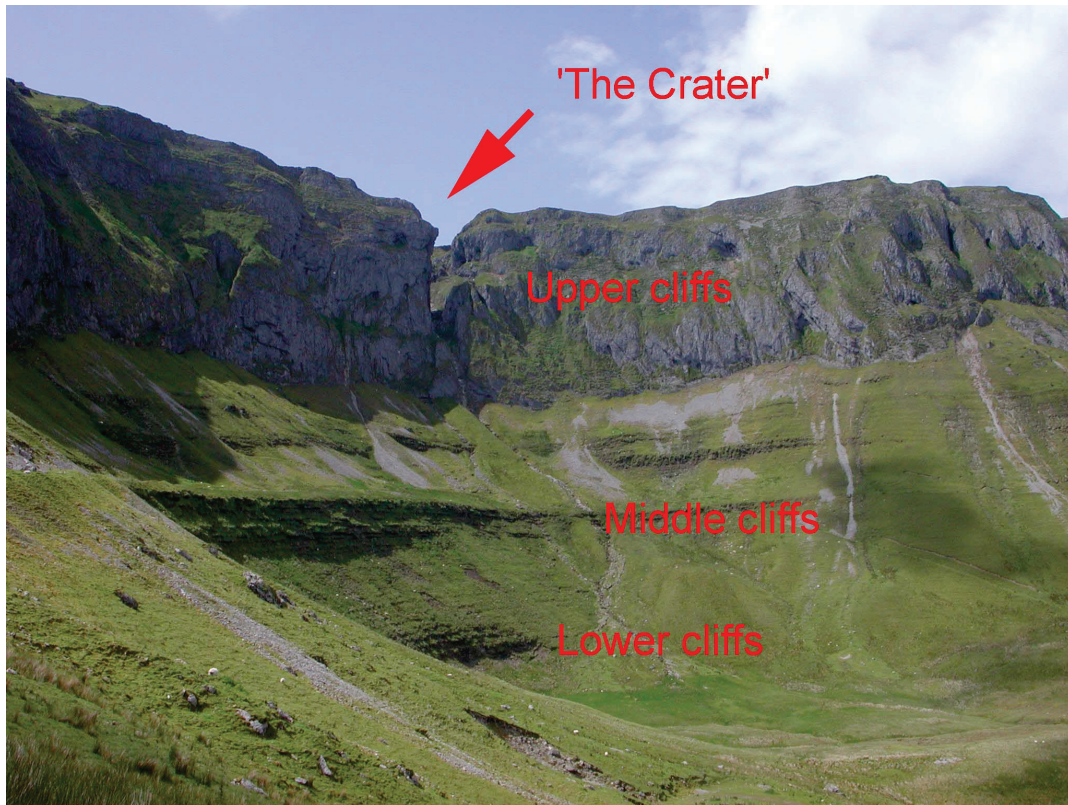
Field Data Sheet – Rare and Threatened Bryophyte Survey 2003

Species <i>Myurella julacea</i> var. <i>julacea</i>	Vice-county number H28	Vice-county Sligo
Locality Gleniff - Annacoona cliffs	Land Owner/Occupier	cSAC/pNHA? yes.
Grid Ref. G72414660	GPS? Yes	alt. (m) 535
	Date d/m/y 2/7/03	Recorder Nick Hodgetts
Sketch Map of site showing Location of Species: indicate North (arrow) and scale 		Describe substrate(s), e.g. rock/soil/tree type; wet/moist/dry, sunny/shaded habitat features e.g. aspect, slope, vegetation cover/height Shaley, unstable layered limestone, in crevice between layers in sheltered hollow at top of cliffs. North-facing.
Size of population A few shoots creeping over other mosses.	Sporophytes present (stage) No	
Locality Map (1:50 000 if possible) 	Associated species <i>Preissia quadrata</i> <i>Ctenidium molluscum</i> <i>Thamnobryum alopecurum</i>	
Photographs Yes - habitat	Threats and proposed Conservation Measures Site immediately threatened: No No obvious threats, except the very small size of the population.	
New record at this site/older record refund New record		
Voucher specimen no. Hodgetts 4419		

Aerial photograph - Rare and Threatened Bryophyte Survey 2003



Site photographs – Rare and Threatened Bryophyte Survey 2003



Management & Conservation

General

- Erosion and disturbance resulting from overstocking with sheep is a danger at some sites
- Botanical collecting may be a threat, as populations are all small
- Climate change?

Potential site-specific threats/issues

- The very small size of the population makes it vulnerable to change

Excerpt from:

Lockhart, N., Hodgetts, N. & Holyoak, D. (2012). *Rare and Threatened Bryophytes of Ireland*. Belfast: National Museums Northern Ireland Publication No. 028.

Mosses

Myurella julacea (Schwäger.) Schimp.

Small Mouse-tail Moss

syn. *Myurella julacea* var. *ciliata* (Chal.) Ochyra & Bednarek-Ochyra, *M. julacea* var. *scabrifolia* Lindb. ex Limpr.

Status in Ireland: Endangered (B2a, bii, iv); **Status in Europe:** Least Concern

Identification

A small slender pleurocarpous moss with cylindrical shoots that grows on basic montane rocks. It forms small patches (rough mats) or occurs as scattered shoots among other bryophytes. The shoots reach 10–15 mm long, the younger parts being bluish-green, the old parts red-brown. The leaves are closely imbricate, broadly ovate, very concave, with obtuse or rounded apex that is apiculate in some populations. The closely appressed concave leaves result in a cylindrical, catkin-like or worm-like shoot. The costa of the leaf is indistinct, short

and double or single. The leaf margins vary from denticulate to sharply toothed. Mid-leaf cells are elliptical with papillae that vary from low and rounded to tall and conical. Capsules (unknown in Ireland) are erect to inclined, obovoid, held up on a curved seta. Although a pleurocarpous moss, the cylindrical stems with ovate, concave leaves give a strong superficial resemblance to the acrocarpous moss *Anomobryum julaceum*. However, *Anomobryum* differs in having a single long costa in each leaf, lack of papillae on the leaf cells, longer leaf cells and in many other details.

RARE AND THREATENED BRYOPHYTES OF IRELAND



Plants of *Myurella julacea* with apiculate, strongly toothed leaves and tall conical papillae on the upper leaf cells were formerly separated as var. *scabrifolia* (e.g. Smith 1978, Blockeel & Long 1998) whereas var. *julacea* has no apiculus, less toothed leaves and lower papillae. The valid name for this form is now known to be var. *ciliata*. However, the differences are regarded as unimportant because the two phenotypes sometimes grow together and intergrade completely (Hill *et al.* 2006, note 401).

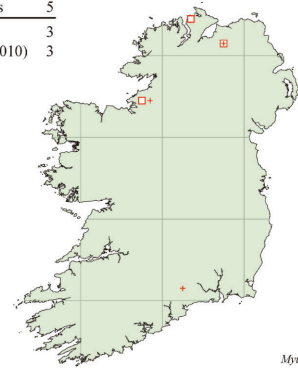
Distribution in Ireland

Recent confirmed records are from three localities in three vice-counties: Sligo (Gleniff, 2003); E. Donegal (Bulbin Mountain, 2002) and Londonderry (Benbradagh, 1964 and 1999). Two older records are accepted: Waterford (Bolagh Lough, 1902) and Leitrim (Glenade, 1963 and 1965). The report from 'Connemara' (Lett 1915) is rather vague and apparently unsupported by a specimen so it seems best discounted. In Ireland, the species has small populations that may be rather inconspicuous when they grow intermixed with other bryophytes, so that it might well still occur at the old localities.

Ecology and biology

It is restricted to a few basic sites in Ireland among montane rocks at 277–535 m altitude, on crags of limestone, shaly limestone, schist or basalt. It occurs in small amounts in moist to rather dry, sheltered or protected crevices or on small ledges, on N.-facing slopes that are largely unshaded other than as a result of their northerly aspect. Although it extends onto rock surfaces, it mainly grows on nutrient-poor, thin soil or humus layers with or among other bryophytes and small vascular plants, including other uncommon and rare montane species.

Number of Hectads	5
+ Old (pre-1970)	3
□ Recent (1970–2010)	3



Myurella julacea

The plants are perennial and dioicous. Capsules are rare in Britain (maturing in autumn) and unrecorded in Ireland. The species is not known to produce gemmae or tubers, but asexual reproduction probably occurs from stem and leaf fragments.

World distribution

M. julacea has a wide range in Europe, from Iceland and N. Fennoscandia and in the mountains from Scotland to the Caucasus and southwards to the Pyrenees and Alps, with a southernmost outpost in the Sierra Nevada. The species is rather scarce in Scotland but locally common in Fennoscandia and the Alps, with little evidence of population decline from any of these regions (e.g. Meinunger & Schröder 2007). However, it is listed as *Endangered* in the Czech Republic and 'declining' in Germany. It is assigned to a Circumpolar Boreo-arctic montane floristic element. Elsewhere, it occurs in Asia, N. America, Greenland, with records also from Antarctica.

Threats

Some populations are on crags or rocky slopes that are too steep to be grazed by sheep, so they are not at much risk from the widespread overgrazing, erosion and eutrophication they have caused and which has damaged many montane bryophyte populations in recent decades. However, it grows on gently sloping rocks at Benbradagh where there is a serious threat of erosion and disturbance resulting from overstocking with sheep. Thoughtless and unnecessary collection of specimens would be potentially damaging to all populations. *M. julacea* is also one of the rare montane elements in the Irish flora that may be at risk from climate change over the next century.

Mosses

Conservation

It is listed as a Northern Ireland Priority Species because the only population on Benbradagh is tiny (covering about 150 cm² in 1999) and vulnerable.

Protected sites with recent records: Ben Bulbin, Gleniff and Glenade Complex SAC; Bulbin Mountain pNHA;
Unprotected sites with recent records: Benbradagh (proposed ASSI).
