

Flora Protection Order - bryophytes

Encalypta raptocarpa

Status: Critically Endangered; listed on the Flora Protection Order

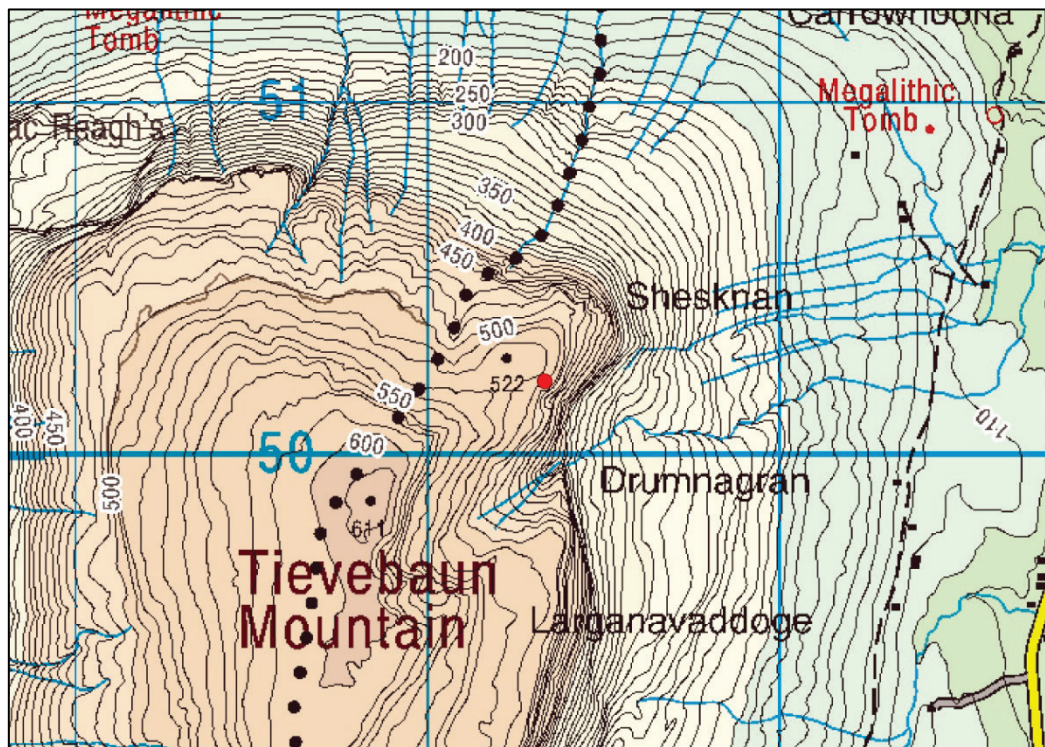
Location: Largydonnell, Co. Leitrim

Species Records

Taxon	Vice County number	Taxon Site	Locality / habitat	Grid Reference	Date	Recorder	Protected site
<i>Encalypta raptocarpa</i>	29	04	Largydonnell, mountain behind	G75	1909.	Tetley, W.N.	Not protected
<i>Encalypta raptocarpa</i>	29	04	Tievebaun (above Largydonnell)	G7733350209	2016.10.18	Rory Hodd	SAC000623

The 1909 record was presumably from Tievebaun Mountain, but, in view of the recent record from the other side of the valley, above Keeloges, it may be that this old record was also from there. Refound at Tievebaun by Rory Hodd in 2016.

Location (1:50,000 Discovery map)



Ordnance Survey of Ireland Licence No EN 0059214
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Field Data Sheet – Survey of FPO Bryophytes 2016

Species <i>Encalypta raptocarpa</i>	County Leitrim	6" Map le003b	Discovery Map 16
Locality/ Site name Tievebaun (above Largydonnell)	Vice-county (No.) H29	SAC/NHA 000623 Ben Bulben, Gleniff And Glenade Complex SAC	
Grid ref (GPS, National Grid) G7733350209(±5)	2005 Aerial Photo 0773-C	Recorder(s) R.L. Hodd	
Elevation (m) 515	Solid geology Dark fine-grained cherty limestone	Survey date 18/10/2016	
Site description	Low north-facing bluff above very steep, tall line of calcareous cliffs to the east of summit of Tievebaun, consisting of rocky outcrops interspersed with calcareous alpine grassland.		
Population description	Shoots sparsely scattered over a 1x1m area of broken rocky ground, in shallow crevices, with 12 sporophytes located.		
Associated species	Growing with <i>Trichostomum brachydontium</i> , <i>Distichium capillaceum</i> , <i>Festuca rubra</i> , <i>Silene acaulis</i> and <i>Saxifraga oppositifolia</i> .		
Vegetation	ER2 Exposed calcareous rock		
Current management	These slopes are moderately heavily grazed by sheep.		
Threats	Overgrazing and erosion a potential threat.		
Conservation measures	Ensure that overgrazing does not occur.		
Ownership	Commonage		
Access	There is a carpark in Glenade to the north of Truskmore, from where a track leads up on to the plateau near this site.		
Other remarks			

Synonymous habitat/vegetation types :

First record and other comments:

A vague record by W.N. Tetley from 1909 for 'above Largydonnell' is likely to refer to this location.

References:

Hodd, R.L. 2016. *Survey of Flora Protection Order Bryophytes 2016*. Unpublished report to National Parks and Wildlife Service. Dublin.

Photographs:



Photograph 1: View along the eastern scarp of Tievebaun, the location of *E. raptocarpa* is indicated by red arrow.



Photograph 2: Habitat *E. raptocarpa*, marked by red arrow, on rocky outcrop above steep cliffs.



Photograph 3: Area across which shoots of *E. raptocarpa* are scattered, main cushion indicated by red arrow.



Photograph 4: Close-up of patch of *E. raptocarpa* marked by red arrow in Photograph 3.

Maps and Aerial Photographs:

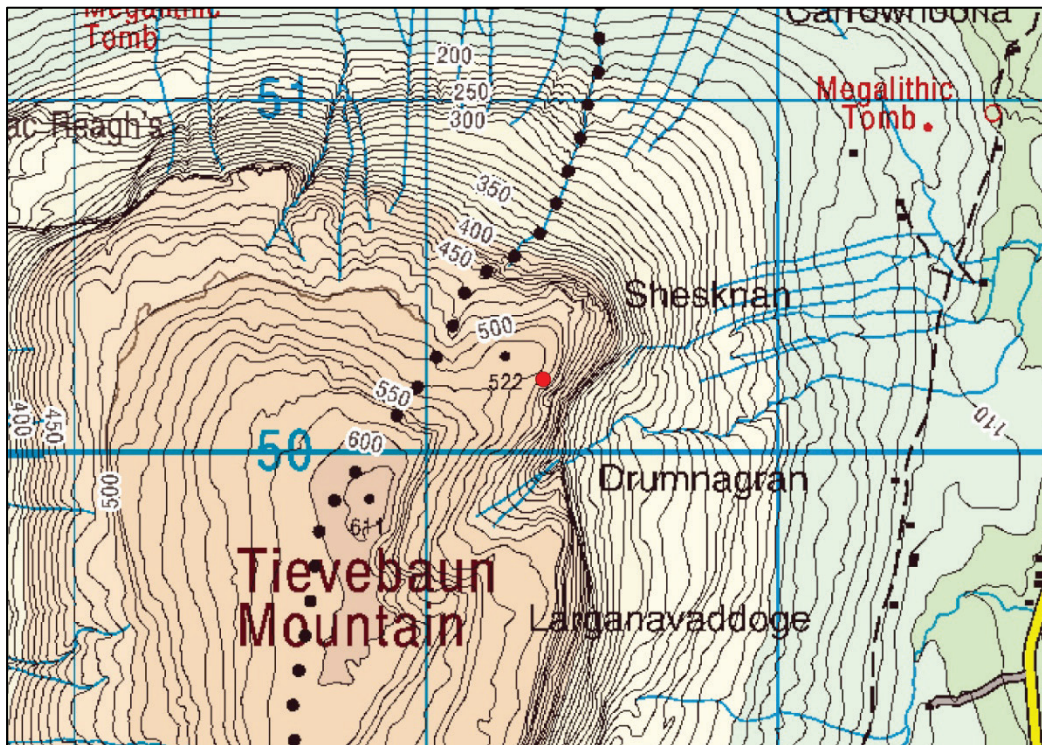


Figure 1: OSI Discovery Series map showing the location of *E. raptocarpa* (marked by a red dot) on Tievebaun Mountain (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).



Figure 2: 6-inch map showing the location of *E. raptocarpa* (marked by a red dot) on Tievebaun Mountain (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).



Figure 3: 1:5,000 map showing the location of *E. raptocarpa* (marked by a red dot) on Tievebaun Mountain (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).

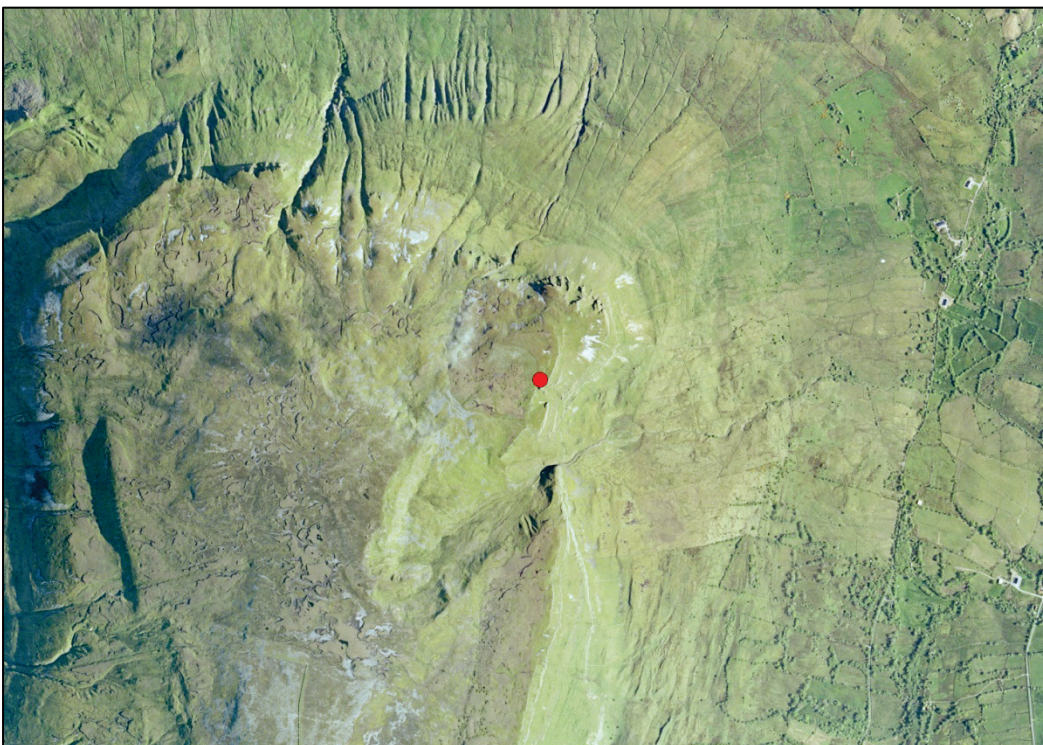


Figure 4: 2005 aerial photo showing the location of *E. raptocarpa* (marked by a red dot) on Tievebaun Mountain (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).



Figure 5: Satellite image showing the location of *E. raptocarpa* (marked by a red dot) on Tievebaun Mountain (Basemap source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community).

Management & Conservation

General

- Competition and shading from other plants
- Erosion if grazing pressure increases

Potential site-specific threats/issues

- Overgrazing and erosion are potential threats

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

RARE AND THREATENED BRYOPHYTES OF IRELAND

Encalypta raptocarpa Schwägr.

syn. *Encalypta rhabdocarpa* Schwägr.

Status in Ireland: Critically Endangered (B1a, bi, ii, iv, B2a, bi, ii, iv); **Status in Europe:** Least Concern

**Identification**

The broad (more or less lingulate-spathulate), opaque green leaves and the large calyptra, covering the entire capsule, immediately identify this acrocarp as a species of *Encalypta*. Shoots can grow up to about 2 cm tall, usually much less; the leaves are up to 2.5 mm long and the excurrent costa sometimes develops into a hyaline hair-point. The capsules are characteristically longitudinally ribbed when moist, with a calyptra that is papillose at the apex, but not fringed at the base (unlike *E. ciliata*).

Distribution in Ireland

There is currently only a single site for this species in Ireland, near the summit of Benbradagh, Londonderry (1999–2008). It has been recorded elsewhere in the past, but the locational details are imprecise: Clare (Scarriff, 1909); W. Mayo (Mallaranny, 1909); Sligo (Benbulbin and Gleniff, 1817–1963) and Leitrim (Largydonnell, 1909). Records from Antrim are unconfirmed.

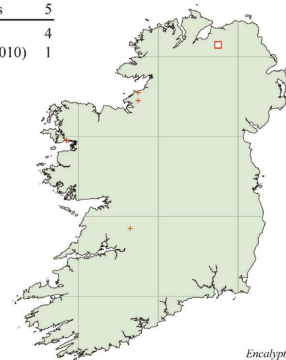
Ecology and biology

E. raptocarpa is a species of base-rich rock crevices at moderate to high altitudes and of calcareous dune slacks. At its only known current site in Ireland, *E. raptocarpa* grows on crumbling near-horizontal basalt rock on an open slope near the summit of a hill, at 450 m altitude.

This is an autoicous species in which capsules are produced in abundance. Specialised vegetative reproductive organs are unknown.

Ribbed Extinguisher-moss

Number of Hectads	5
+ Old (pre-1970)	4
Recent (1970–2010)	1



Encalypta raptocarpa

World distribution

This species is widespread in N. Europe, particularly in arctic regions, and in montane areas further south. It is listed as *Nationally Scarce* in Britain, *Endangered* in the Czech Republic, *Vulnerable* in Germany and 'sporadic' in Estonia. There are only old records from Albania. In Europe, this species is assigned to a Circumpolar Boreo-arctic montane floristic element. It has a similar distribution in N. America and Asia, and also occurs in the mountains of Morocco and Ethiopia.

Threats

While the site on Benbradagh is probably relatively secure, the small populations must be vulnerable to competition and shading from other plants, or erosion if grazing pressure increases. Most of the dunes at Mallaranny have been developed for a golf course, and *E. raptocarpa* has probably been eliminated from this site.

Conservation

E. raptocarpa is listed as a Northern Ireland Priority Species. It could not be refound during recent survey work at other sites where it has been recorded previously, but it is possible that it might yet be refound, especially in the extensive limestone outcrops of the Dartry Mountains.

Protected sites with recent records: none; **Unprotected sites with recent records:** Benbradagh (proposed ASSI).