

Flora Protection Order - bryophytes

Radula holtii

Status: Near Threatened; listed on the Flora Protection Order

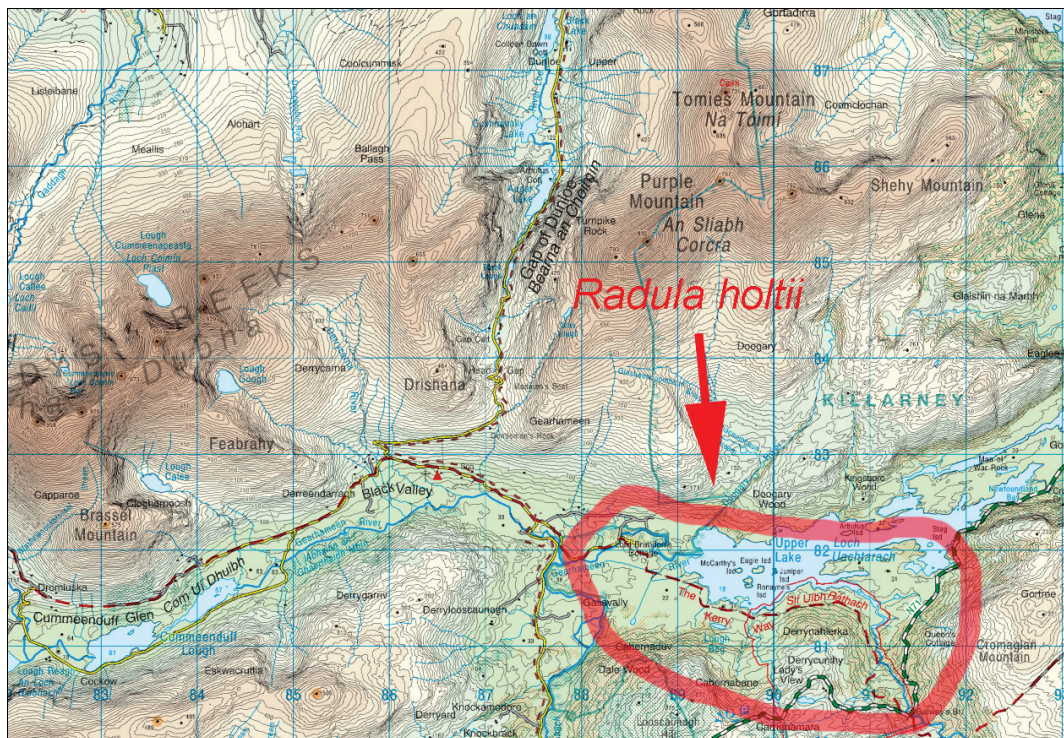
Location: Derrycunihy Wood, Co. Kerry

Species Records

Taxon	Vice County number	Taxon Site	Locality / habitat	Grid Reference	Date	Recorder	Protected site
Radula holtii	02	07	Derrycunihy Wood	V98	1967.	Birks, H.J.B., Birks, H.H. & Ratcliffe, D.A.	SAC000365
Radula holtii	01	07	Cummeenduff Glen	V88	1967.	Birks, H.J.B., Birks, H.H. & Ratcliffe, D.A.	SAC000365
Radula holtii	01	07	Derrycunihy; Below N71 road	V9106880533	2014.09.29	Rory Hodd	SAC000365
Radula holtii	01	07	Derrycunihy; Below N71 road	V9108380519	2014.09.29	Rory Hodd	SAC000365
Radula holtii	01	07	Derrycunihy; Below N71 road	V9109280501	2014.09.29	Rory Hodd	SAC000365
Radula holtii	02	07	Derrycunihy; Below N71 road	V9146180361	2014.09.29	Rory Hodd	SAC000365

‘Cummeenduff Glen’ is very vague, and both the hectad line and the vice county boundary are very close to Derrycunihy Wood. Both records are from more or less the same area, and it seems pointless to retain two taxon sites until and unless the 1967 records are more accurately localised. Both records are probably from within the area indicated on the Discovery map below.

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 in Cork & Kerry 2014

Species <i>Radula holtii</i>	County Kerry	6" Map Kerry Sheet 74/84	Discovery Map 78
Locality/ Site name Derrycunihy	Vice-county (No.) South Kerry (H1) and North Kerry (H2)	SAC/NHA 000365 Killarney National Park, Macgillicuddy's Reeks and Caragh River Catchment	
Grid ref (GPS, National Grid) (i) V9146180361(±8)	2005 Aerial Photo O6223-B/O6223-D	Recorder(s) R.L. Hodd	
Elevation (m) 90	Solid geology Sandstone	Survey date 29/09/2014	
Site description	<i>R. holtii</i> was recorded at two locations, at (i) dark crevice under large boulder in woodland below N71 road, and at (ii)-(iv) under boulders along a small stream in woodland.		
Population description	The population at (i) occurs as a small mat on the underside a large, vegetated boulder and populations at (ii)-(iv) occur as extensive mats, with occasional perianths, on the undersides of small boulders beside and above a small stream.		
Associated species	<i>R. holtii</i> is associated at this locality with <i>Saccogyna viticulosa</i> , <i>Trichostomum brachydontium</i> and <i>Heterocladium heteropterum</i> var. <i>heteropterum</i> .		
Vegetation (Fossitt, 2000)	ER1 Exposed siliceous rock/ER3 Siliceous loose rock.		
Current management	Clearance of <i>Rhododendron</i> has taken place in the vicinity, deer grazing is moderately intense.		
Threats	The population at (i) is close to the N71 road, so is potentially threatened by road widening or realignment or illegal dumping.		
Conservation measures	It would be important to ensure that insensitive road widening or other changes to the road do not impact the population close to the road.		
Ownership	This site is located within the Killarney National Park.		
Access	All populations are located close to Derrycunihy church on the N71, where there is ample parking and easy access.		
Other remarks	<i>R. holtii</i> is likely to occur in other similar suitable niches in the vicinity, of which there are many.		

Additional GPS readings for the species

National Grid Letter	Easting	Northing	Comments
V	91068	80533	(±8) ca. 50m alt. (ii)
V	91083	80519	(±8) ca. 55m alt. (iii)
V	91092	80501	(±11) ca. 60m alt. (iv)

Synonymous habitat/vegetation types :

First record and other comments:

R. holtii was previously recorded at Derrycunihy by H.J.B. Birks, H.H. Birks and D.A. Ratcliffe in 1967.

References:

Hodd, R.L. 2014. *Survey of Flora Protection Order bryophytes in Cork and Kerry (H1-H5)*. Unpublished report to National Parks and Wildlife Service. Dublin.

Photographs:



Photograph 1: Location of population (i) of *Radula holtii*, indicated by red arrow, under large boulders on a slope below the main N71 road.



Photograph 2: Habitat of population (ii) of *Radula holtii*, under boulders in the bed of a small stream.



Photograph 3: Small stream running through humid woodland on a slope at Derrycunihy, where populations (ii)-(iv) of *R. holtii* were recorded.



Photograph 4: Population (iii) of *R. holtii*, where it occurs as extensive, pure mats, hanging from the underside of boulders, indicated by red arrow.

Maps and Aerial Photographs:



Figure 1: OSI Discovery Series map showing the locations of *Radula holtii* (marked by red dots) at Derrycunihy (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).

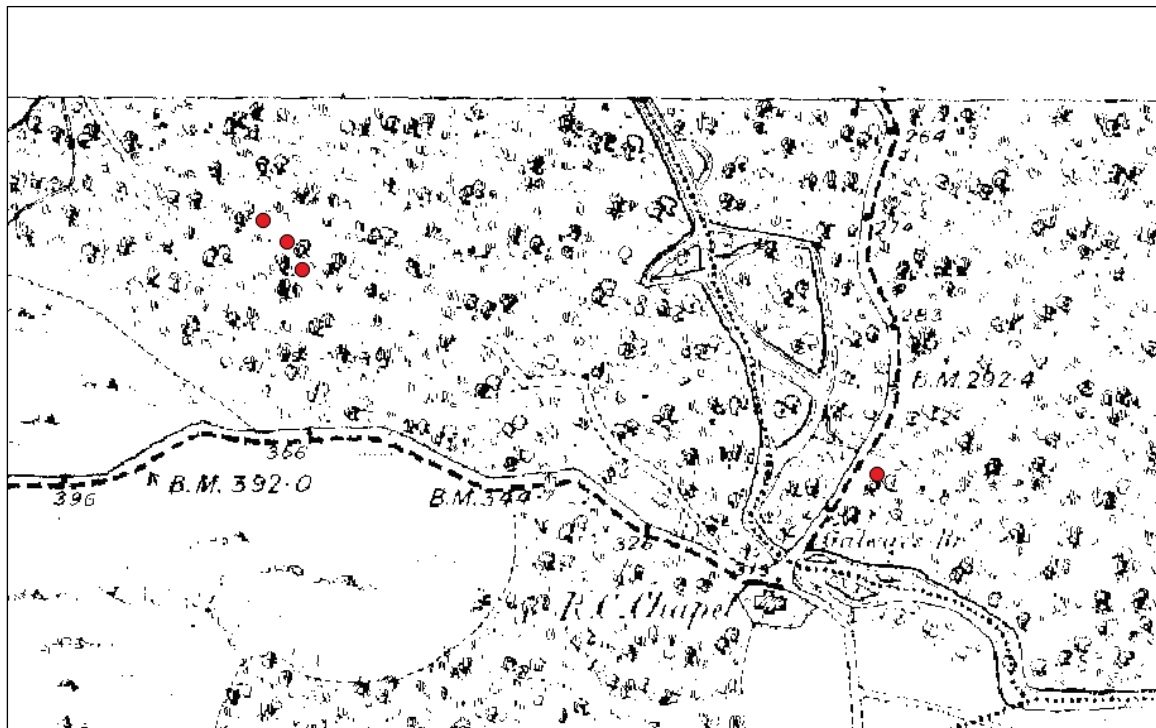


Figure 2: 6-inch map showing the locations of *Radula holtii* (marked by red dots) at Derrycunihy (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).

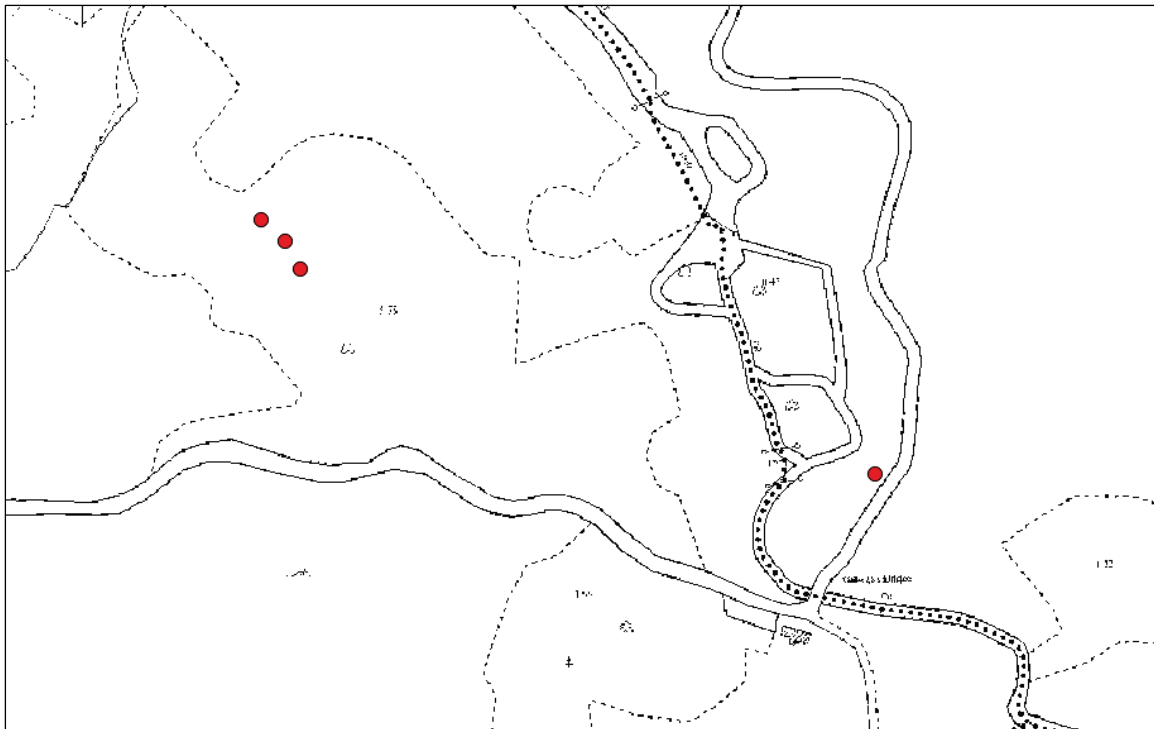


Figure 3: 1:5,000 map showing the locations of *Radula holtii* (marked by red dots) at Derrycunihy (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).



Figure 4: 2005 aerial photo showing the locations of *Radula holtii* (marked by red dots) at Derrycunihy (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).



Figure 5: Bing aerial photo showing the locations of *Radula holtii* (marked by red dots) at Derrycunihy.

Management & Conservation

General

- Water abstraction for hydroelectric schemes could endanger this species at some sites
- New survey needed at many older sites, as this species was not targeted specifically during recent fieldwork

Potential site-specific threats/issues

- The population at (i) is close to the N71 road, so is potentially threatened by road widening or realignment or illegal dumping.

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

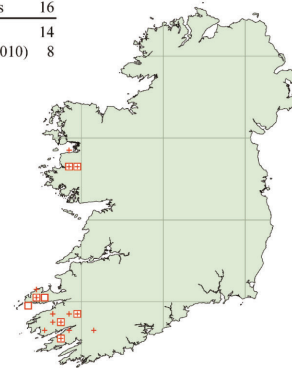
Radula holtii Spruce

Holt's Scalegwort

Status in Ireland: Near Threatened; **Status in Europe:** Rare



Number of Hectads	16
+ Old (pre-1970)	14
□ Recent (1970–2010)	8



Radula holtii

Identification

Like all species of *Radula*, *R. holtii* is a rather fleshy leafy liverwort with a rounded leaf lobe much larger than the almost square lobule beneath, and no underleaves. It is yellowish-green in colour and the shoots grow up to c. 2 cm long and 1.8 mm wide. Although superficially similar to the much more common *R. complanata* and *R. lindenberghiana*, the antical leaf margin of *R. holtii* does not cross the stem, and gemmae are very rare, whereas they are very common in the other two species. Furthermore, the perianths are characteristically trumpet-shaped, with a narrow base and a wide mouth; the other two species have oblong perianths. Finally, the cell walls of the stem medulla are thin-walled rather than collenchymatous.

Distribution in Ireland

R. holtii is confined to the extreme west and south-west, with recent records from 11 localities in four vice-counties: S. Kerry (Brandon Mountain, 1961–2008; Lough Anscaul, 2006; Loch an Duin, 2006; An Loch Dubh, Ballysitteragh, 2006; Mount Eagle, 2006; Ballaghbeama Gap, 1967–1983); N. Kerry (Muckcross-Ross Island, 1905–1983; Torc Cascade, 1885–2005); W. Kerry (Glenbeg Lough and Lackawee, 1955–1979) and W. Mayo (Ben Gorm, 1901–1987; Devil's Mother, 1901–1987). There are older records from a further 11 localities in: S. Kerry (Lough Currane, 1967; Lough Coomeathcun, 1951; Coomasaharn, 1961; Inchiquin

Lough, 1967; Uragh Wood, 1967; Cummeenduff Glen, 1967; O'Sullivan's Cascade, 1912–1935); N. Kerry (Eagle's Nest, 1911–1925; Derrycunihy Wood, 1967); W. Kerry (Pass of Keimaneigh, 1967) and W. Mayo (Old Head Wood, 1901–1909). It is not clear whether there has actually been a decline in the species, since *R. holtii* was not on the original list of target species for recent fieldwork and little effort has therefore been made to re-find it at old localities. This plant is described as Southern Atlantic by Ratcliffe (1968).

Ecology and biology

R. holtii is a hyperoceanic species that grows in shade, usually deep shade, on wet rocks in ravines, woodland, by lakes, in small caves or under overhangs, usually by streams and waterfalls, especially where permanently wet from spray. It is a lowland plant, recorded in Ireland from near sea level to c. 330 m. Associates include *Jubula hutchinsiae*, *Lejeunea* spp., *Plagiochila exigua*, *Porella pinnata*, other *Radula* spp., *Trichostomum hibernicum* and *Trichomanes speciosum*.

Paroicous and often fertile, sporophytes are frequent in this species. Gemmae are very rare.

World distribution

This plant is recorded from the Azores, Madeira and the Canary Islands, where it is not on any list of rare or threatened species, and also from Spain and Portugal, in

Hornworts and Liverworts

both of which it is listed as *Vulnerable*. It is absent from Britain. It is classified as a Holarctic Southern-temperate floristic element and is apparently endemic to Europe and Macaronesia.

Threats

There are probably few real threats to *R. holtii*, but water abstraction for hydroelectric schemes could endanger this species at some sites.

Conservation

This species has a very restricted distribution and the

Irish populations are of global importance for conservation. Efforts should be made to target this species for resurvey, in particular the many localities described from the 1960s. Populations at the more important sites should be monitored.

Protected sites with recent records: Glanmore Bog SAC; Killarney National Park; Killarney National Park, Macgillicuddy's Reeks and Caragh River Catchment SAC; Maumtrasna Mountain Complex pNHA; Mount Brandon SAC; Mweelrea/Sheeffry/Erriff Complex SAC;

Unprotected sites with recent records: Mount Eagle.