

# Flora Protection Order - bryophytes

## *Radula holtii*

**Status:** Near Threatened; listed on the Flora Protection Order

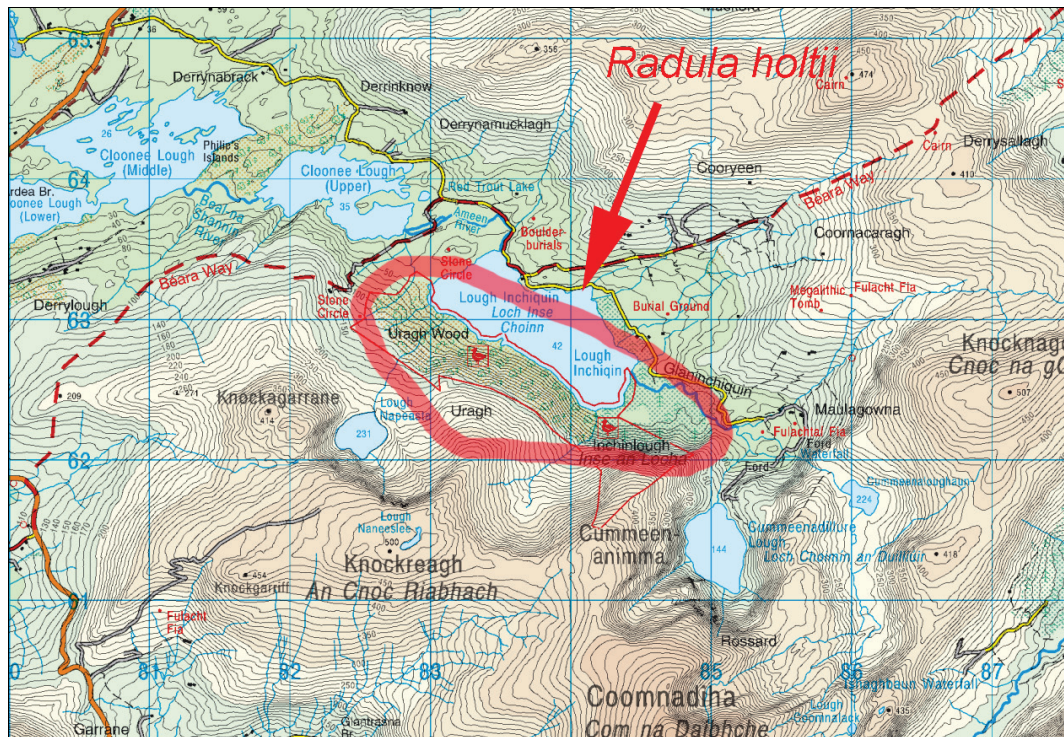
**Location:** Uragh Wood, Co. Kerry

## Species Records

Taxon	Vice County number	Taxon Site	Locality / habitat	Grid Reference	Date	Recorder	Protected site
<i>Radula holtii</i>	01	06	Inchiquin Lough	V86	1967.	Birks, H.J.B., Birks, H.H. & Ratcliffe, D.A.	SAC001342
<i>Radula holtii</i>	01	06	Uragh Wood	V86	1967.	Birks, H.J.B., Birks, H.H. & Ratcliffe, D.A.	SAC001342
<i>Radula holtii</i>	01	06	Uragh Wood; Small stream valley in woodland	V8350562676	2014.11.14	Rory Hodd	SAC001342
<i>Radula holtii</i>	01	06	Uragh Wood; Small stream valley in woodland	V8354262696	2014.11.14	Rory Hodd	SAC001342

The two 1967 records are almost certainly duplicates.

## Location (1:50,000 Discovery map)



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## Field Data Sheet – Survey of FPO Bryophytes in Cork & Kerry 2014

<b>Species</b> <i>Radula holtii</i>	<b>County</b> Kerry	<b>6" Map</b> Kerry Sheet 101	<b>Discovery Map</b> 84
<b>Locality/ Site name</b> Uragh Wood, Glaninchiquin	<b>Vice-county (No.)</b> South Kerry (H1)	<b>SAC/NHA</b> 001342 Cloonee and Inchiquin Loughs, Uragh Wood SAC	
<b>Grid ref (GPS, National Grid)</b> (i) V8354262696(±7)	<b>2005 Aerial Photo</b> O6487-B	<b>Recorder(s)</b> R.L. Hodd and C. Heardman	
<b>Elevation (m)</b> 85	<b>Solid geology</b> Sandstone	<b>Survey date</b> 14/11/2014	
<b>Site description</b>	<i>R. holtii</i> grows on a steep slope in an extensive mature <i>Quercus petraea</i> forest, in a narrow rocky stream flowing through the woodland.		
<b>Population description</b>	Small patches of <i>R. holtii</i> were recorded in two locations on rocks, shaded by boulders, at the edge of the flow of a stream that has incised a small valley through the woodland.		
<b>Associated species</b>	<i>R. holtii</i> is associated with <i>Hyocomium amoricum</i> , <i>Riccardia chamedryfolia</i> and <i>Jubula hutchinsiae</i> .		
<b>Vegetation</b> (after Fossitt, 2000)	ER3 Siliceous loose rock		
<b>Current management</b>	This site is managed as a nature reserve.		
<b>Threats</b>	Few threats to these populations exist.		
<b>Conservation measures</b>	Monitor these populations regularly.		
<b>Ownership</b>	This site is a nature reserve, under the ownership of National Parks and Wildlife Service.		
<b>Access</b>	Access to this site is gained from a rough road leading between Cloonee Lough and Inchiquin Lough, across open bogland, entering the woodland near the lakeshore through a swing gate in the deer fence.		
<b>Other remarks</b>			

### Additional GPS readings for the species

National Grid Letter	Easting	Northing	Comments
V	83505	62676	(±8) 105m alt. (ii)

### Synonymous habitat/vegetation types :

#### First record and other comments:

*R. holtii* was previously recorded at this site 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: Habitat of population (i) of *Radula holtii*, on the shaded side of a boulder beside a small waterfall.



Photograph 2: Bryophyte mat, through which population (i) of *R. holtii* is scattered, in a location subject to much splashing from the small waterfall.

Maps and Aerial Photographs:

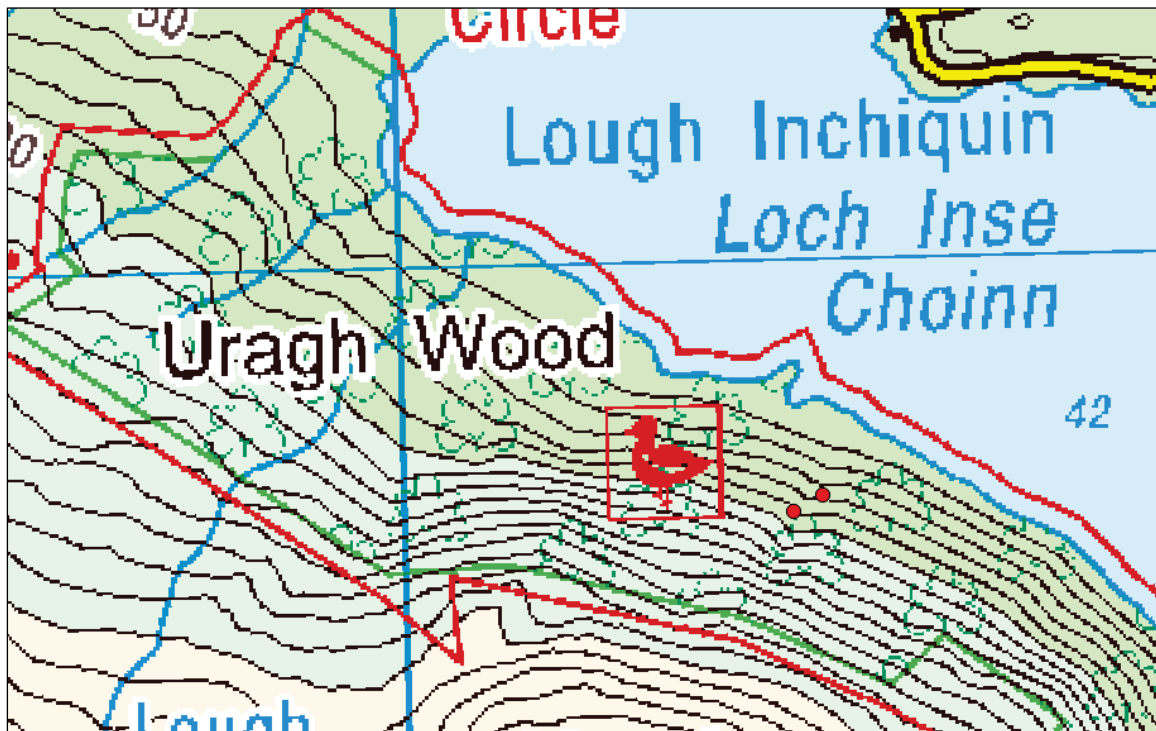


Figure 1: OSI Discovery Series map showing the locations of *Radula holtii* (marked by red dots) in Uragh Wood (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).

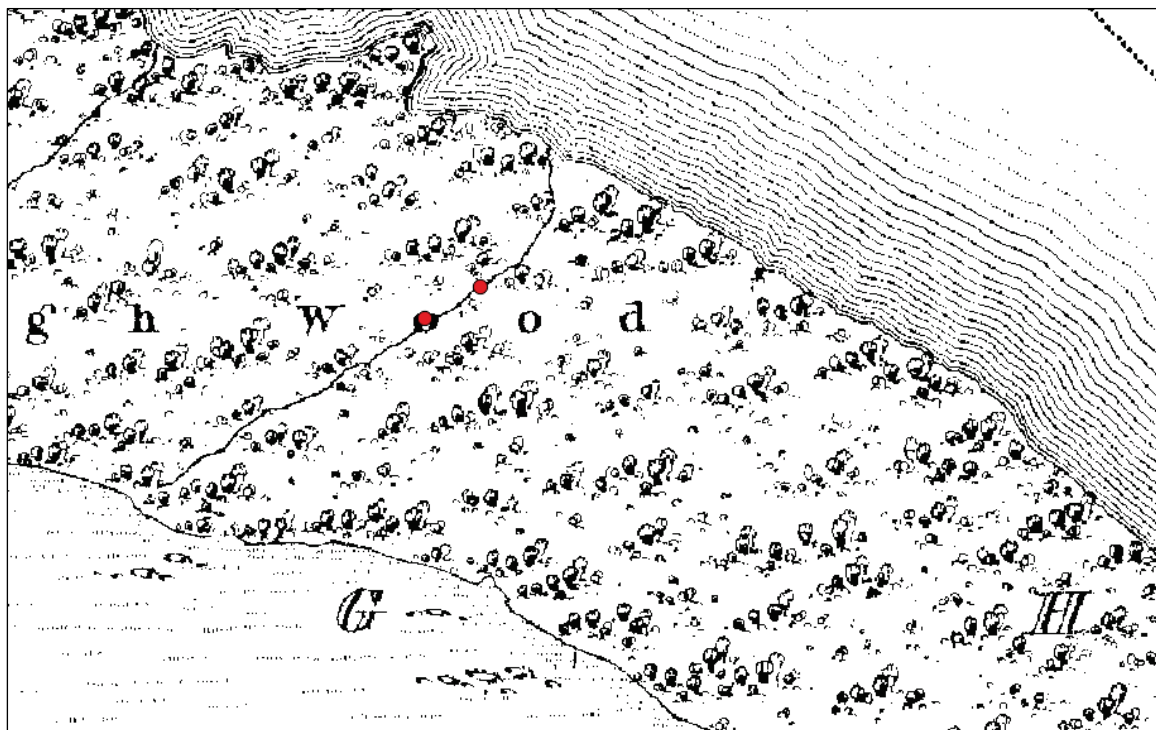


Figure 2: 6-inch map showing the locations of *Radula holtii* (marked by red dots) in Uragh Wood (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).

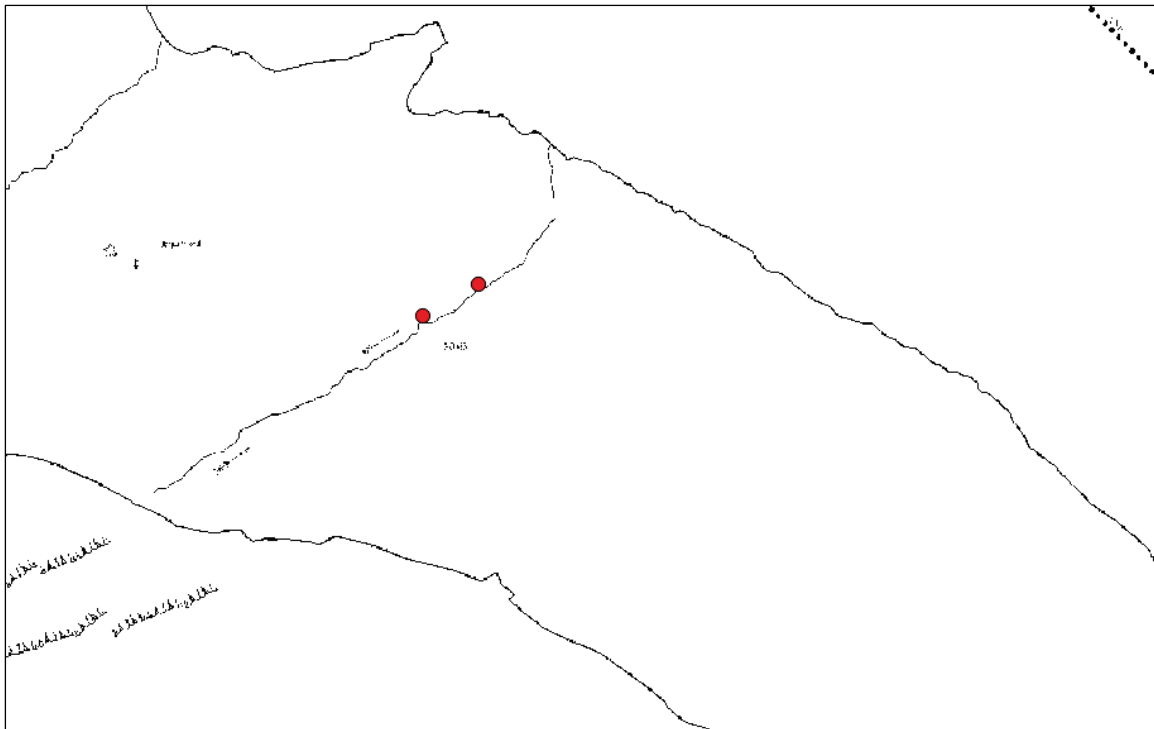


Figure 3: 1:5,000 map showing the locations of *Radula holtii* (marked by red dots) in Uragh Wood (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).



Figure 4: 2005 aerial photo showing the locations of *Radula holtii* (marked by red dots) in Uragh Wood (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) in Uragh Wood.

## 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

- Few threats to these populations exist.

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

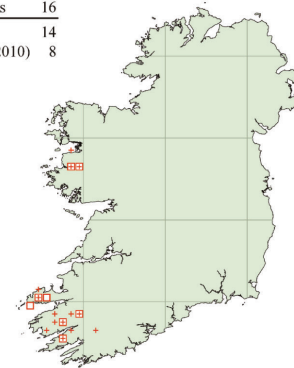
**Radula holtii** Spruce

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. lindenbergiana*, 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.