

Flora Protection Order - bryophytes

Oedipodium griffithianum

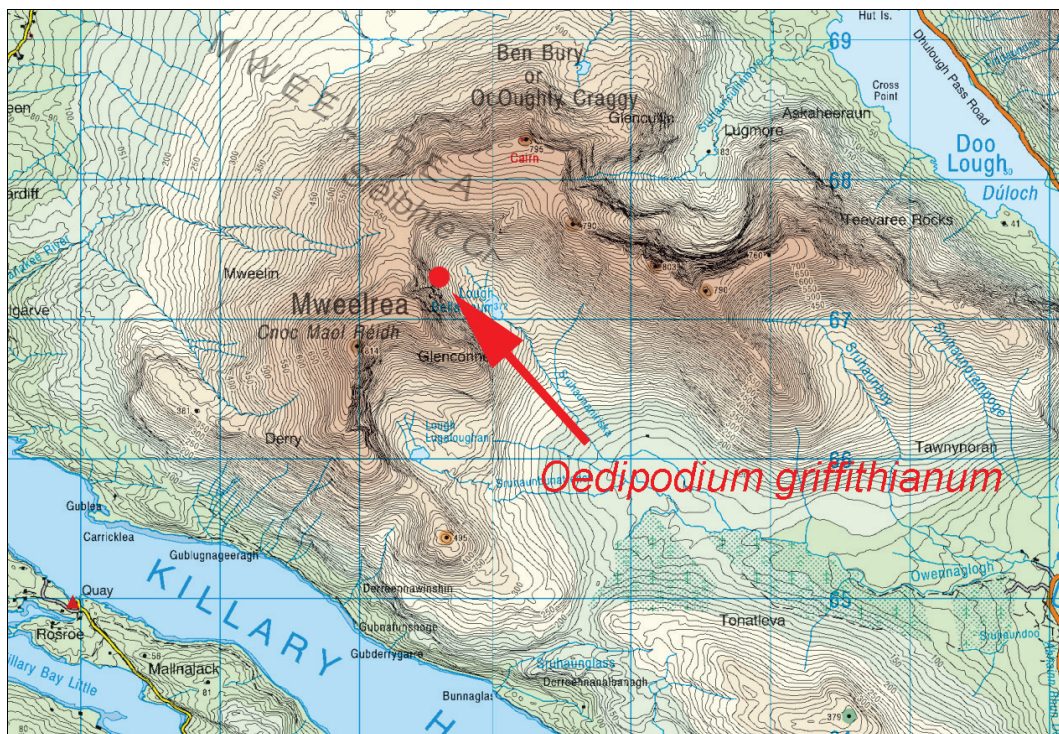
Status: Critically Endangered; listed on the Flora Protection Order

Location: Mweelrea, Co. Mayo

Species Records

Taxon	Vice County number	Taxon Site	Locality / habitat	Grid Reference	Date	Recorder	Protected site
<i>Oedipodium griffithianum</i>	27	02	W of Lough Bellawaum, Mweelrea: loose partly bare fine soil on slope of unshaded fine (Mweelrea Grit) scree facing E; ca 530 m alt.	L79596720	2003.07.	Long, D.G.	SAC001932
<i>Oedipodium griffithianum</i>	27	02	W of Lough Bellawaum, Mweelrea: loose partly bare fine soil on slope of unshaded fine (Mweelrea Grit) scree facing E; ca 530 m alt.	L79596720	2003.09.27	Holyoak, D.T.	SAC001932
<i>Oedipodium griffithianum</i>	27	02	Mweelrea; Above Lough Bellawaum	L7956567193	2015.06.23	Rory Hodd	SAC001932

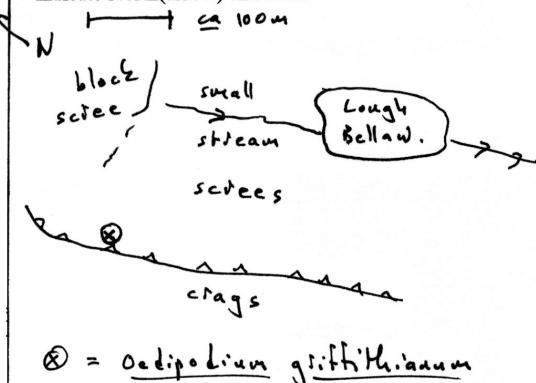
Location (1:50,000 Discovery map)



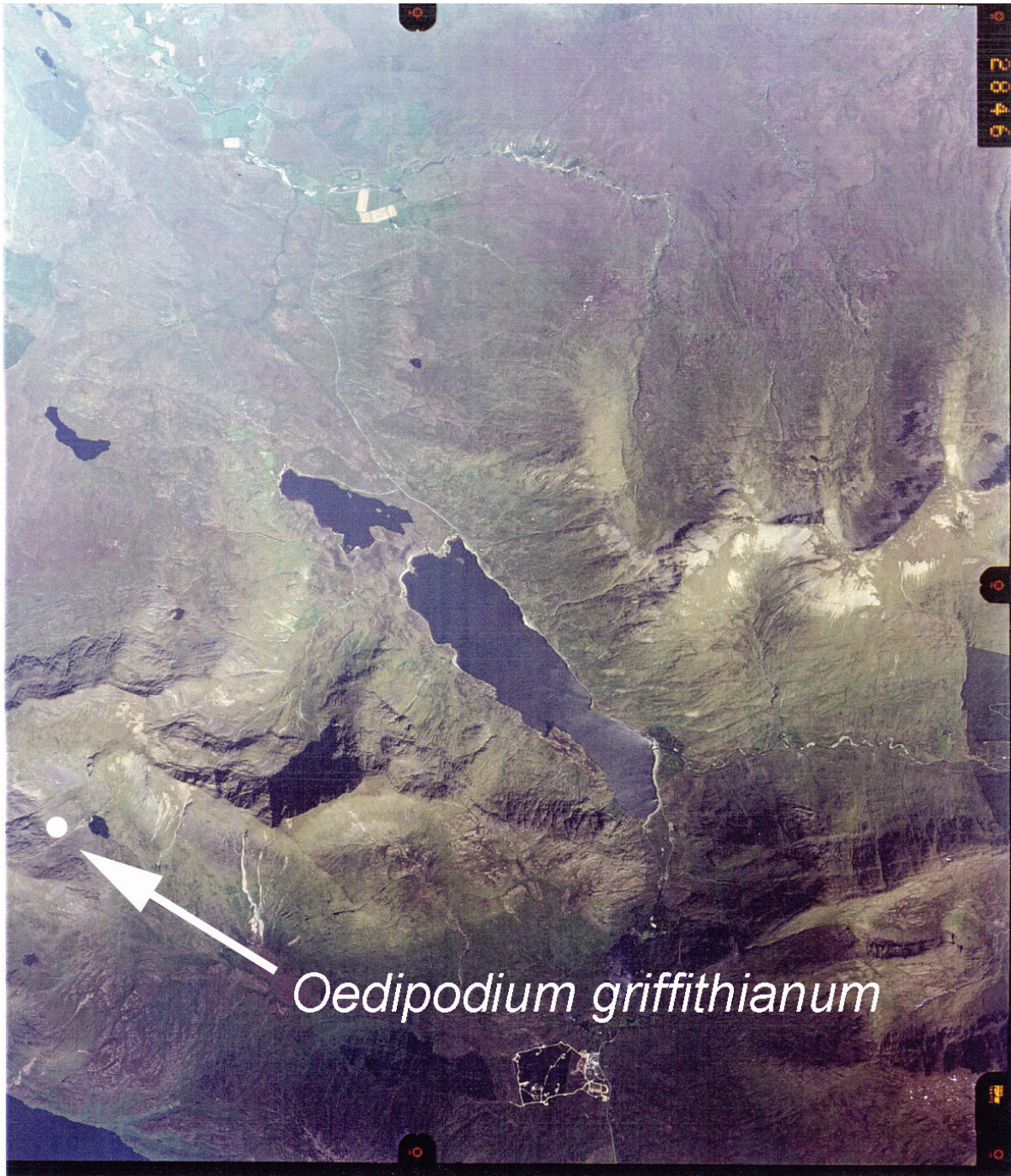
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Field Data Sheet - Rare and Threatened Bryophyte Survey 2003

2003 - 323

Species <u>Oedipodium griffithianum</u>		Vice-county number H 27	Vice-county West Co. Mayo
Locality <u>W. of Lough Bellawann, Mweelrea</u>		Land Owner/Occupier <u>commonage</u>	cSAC/pNHA? no. 1932
Grid Ref. <u>L 7959/6720</u>	GPS? <input checked="" type="checkbox"/>	alt. (m) <u>ca 530</u>	Date d/m/y <u>27.ix.2003</u>
Recorder <u>D.T. Holyoak</u>		Describe substrate(s), e.g. rock/ soil/ tree type; wet/moist/dry, sunny/shaded habitat features e.g. aspect, slope, vegetation cover/height <u>On loose, partly bare, fine soil on ca 30-40° slope of unshaded fine scree (composed of Mweelrea grits), facing east.</u>	
Sketch Map of Site showing Location of Species: indicate North (arrow) and scale 			
Size of Population <u>Scattered plants and small patches (max. 5 x 3 cm) over several square metres</u>		Sporophytes present (stage) <u>none; most plants with foliar gemmae</u>	
Locality Map (1:50 000 if possible) [or copy of part of 1:50 000 sheet no. <u>37</u> attached to this page]		Associated Species <u>Mainly growing as single plants or small pure patches, near to scattered Pogonatum ussigerum, Diplophyllum albicans, Oligotrichum hercynicum, Nardia scalaris, Pohlia (immature, cf. P. flexuosa), and rare plants of Festuca ovina and Sasionia montana.</u>	
Photographs <u>6/18-19</u>		Threats and proposed Conservation Measures Site immediately threatened: <u>yes</u> / no <u>site is very fragile with fine mobile scree which moves whenever touched, so greatest risk must be from habitat damage due to visiting botanists or sheep. Rock falls might also pose a threat by moving scree.</u>	
New record at this site / older record refound <u>discovered by D.G. Long, summer 2003</u>			
Voucher specimen no. <u>DTH 03-481</u>			

Aerial photograph - Rare and Threatened Bryophyte Survey 2003



Oedipodium griffithianum

Site photographs – Rare and Threatened Bryophyte Survey 2003



Field Data Sheet – Survey of FPO Bryophytes 2015

Species <i>Oedipodium griffithianum</i>	County Mayo	6" Map Ma106	Discovery Map 37
Locality/ Site name Above Lough Bellawaum, Mweelrea	Vice-county (No.) H27	SAC/NHA 001932 Mweelrea/Sheefry/Erriff Complex SAC	
Grid ref (GPS, National Grid) (i) L7956567193(±7)	2005 Aerial Photo 2454-B	Recorder(s) R.L. Hodd, N. Lockhart and A. Bleasdale	
Elevation (m) 495	Solid geology Slate	Survey date 23/06/2015	
Site description	Scree slope consisting of very fine, loose material, interspersed with soil, on steep corrie wall, below the base of steep cliff, from where some water runs off.		
Population description	Five patches, each consisting of ca. 5 rosettes were located scattered across an area of ca. 1m ² , in very unstable, loose conditions.		
Associated species	Other species located in the vicinity were <i>Pogonatum urnigerum</i> , <i>Oligotrichum hercynicum</i> , <i>Anthoxanthum odoratum</i> , <i>Festuca vivipara</i> , <i>Saxifraga spathularis</i> , <i>Campylopus atrovirens</i> and <i>Diplophyllum albicans</i> .		
Vegetation (after Fossit, 2000)	ER3 Siliceous scree		
Current management	These slopes are moderately heavily grazed by sheep.		
Threats	Erosion due to overgrazing is a considerable threat, due to the very unstable nature of the habitat. However, <i>O. griffithianum</i> has been present at this location since at least 2003, so must be able to persist despite continual erosion.		
Conservation measures	Reduce stocking levels.		
Ownership	Located on commonage.		
Access	Forest tracks can be followed from the Delphi Adventure Centre to the edge of forestry, where open ground is reached below the corrie.		

GPS readings for the species

National Grid Letter	Easting	Northing	Comments

First record and other comments:

This species was first recorded at this site by D.G. Long in 2003, and by D.T. Holyoak later the same year.

References:

Hodd, R.L. 2015. *Survey of Flora Protection Order Bryophytes 2015*. Unpublished report to National Parks and Wildlife Service. Dublin.

Holyoak, D.T. 2003. *Survey of Rare and Threatened Bryophytes in Co. Mayo*. Unpublished report to National Parks and Wildlife Service, Dublin.

Photographs:



Photograph 1: Location of *O. griffithianum* population, marked by red arrow, as viewed from close to the outflow of Lough Bellawaum.



Photograph 2: View of slopes above Lough Bellawaum, location of population of *O. griffithianum* marked by red arrow.



Photograph 3: Habitat of *O. griffithianum* on damp very loose scree slope above Lough Bellawaum.



Photograph 4: Scattered plants of *O. griffithianum* amongst unstable fine scree.

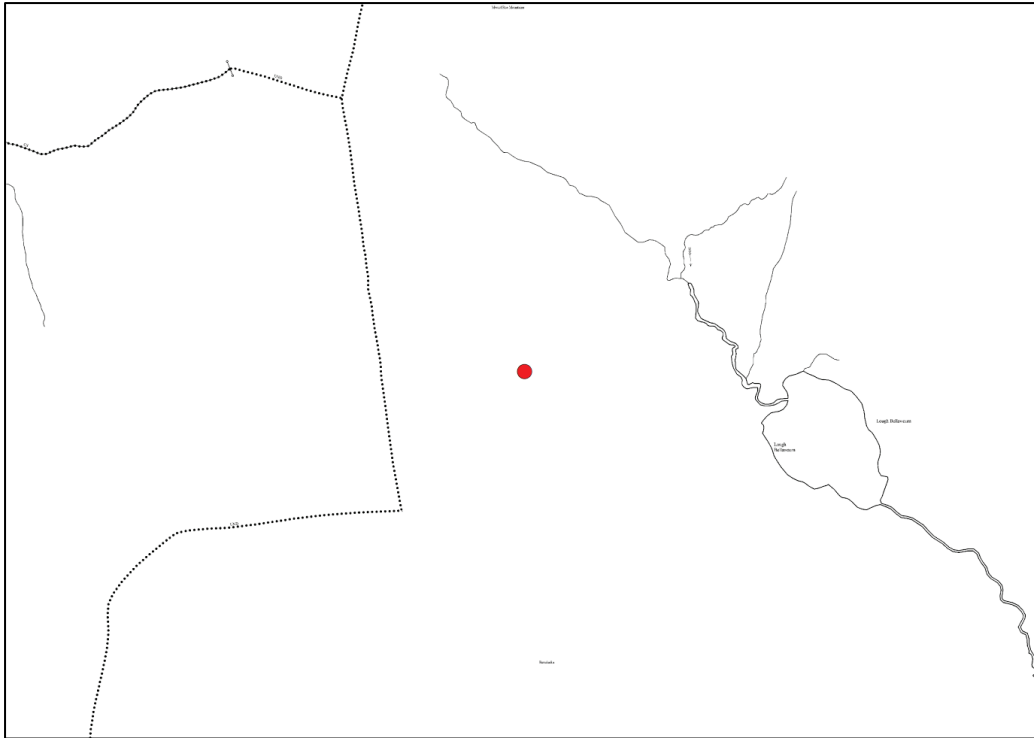


Figure 3: 1:5,000 map showing the location of *O. griffithianum* (marked by red dot) above Lough Bellawaum, Mweelrea (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).

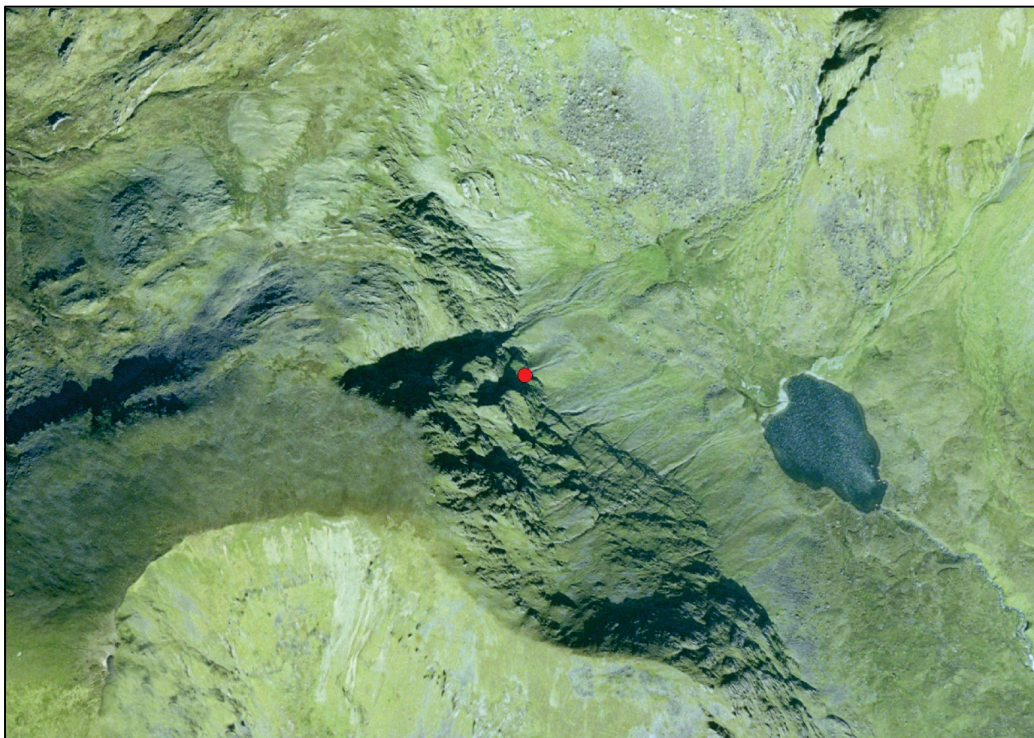


Figure 4: 2005 aerial photo showing the location of *O. griffithianum* (marked by red dot) above Lough Bellawaum, Mweelrea (Ordnance Survey Ireland Licence No EN 0059214 © Ordnance Survey Ireland/Government of Ireland).



Figure 5: Satellite image showing the location of *O. griffithianum* (marked by red dot) above Lough Bellaun, Mweelrea (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

- Eutrophication and erosion of habitat due to visitor pressure
- Disturbance and eutrophication by sheep
- Botanical collecting
- Climate change?

Potential site-specific threats/issues

- In small quantity and potentially at risk from disturbance of the scree from sheep or botanists and from thoughtless collection of specimens

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

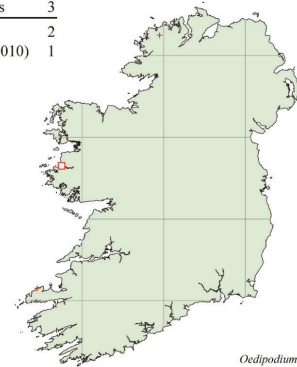
Oedipodium griffithianum (Dicks.) Schwägr.

Gouty-moss

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



Number of Hectads	3
+ Old (pre-1970)	2
□ Recent (1970–2010)	1



Oedipodium griffithianum

Identification

An acrocarpous moss that grows as scattered plants or loose pale green tufts up to about 10 mm tall. The leaves are obovate-spathulate to almost orbicular with a long narrow ciliate base and soft succulent texture, becoming shrivelled when dry. The leaf apex is rounded, the margins plane and entire and the costa ends well below the leaf apex. Leaf cells are hexagonal, smooth, large and rather lax. Stalked discoid or oval multicellular gemmae are often present in the leaf axils or scattered on the leaves after they become detached. The capsules are shortly ellipsoid, with a long fleshy neck, gymnostomous and exserted on a succulent seta.

Molecular studies have revealed that the traditional classification of *Oedipodium* among the Splachnales or Funariales is incorrect and that this monotypic family occupies an isolated position among much more primitive groups of mosses.

Distribution in Ireland

The only modern record is from the NE slope of Mweelrea in W. Mayo, where it was discovered by D.G. Long in 2003. There are two old records, from S. Kerry (Brandon Mountain, 1836) and W. Donegal (Errigal, 1890). Despite the distinctive appearance of the species, an old report from N. Kerry (near Loo Bridge) must be rejected because it seems unlikely to occur in this lowland locality and no voucher specimen has been traced.

Ecology and biology

The only recent record was from loose, partly bare, fine soil on a slope of unshaded fine scree of Mweelrea Grit, facing east at 530 m altitude. The old record 'near summit of Errigal' was presumably somewhere just below 751 m altitude. In Britain, it grows on moist humus-rich or peaty soil in more or less shaded rock crevices or block screes or in mountain regions, mainly at moderate to high altitudes (A.C. Crundwell in Hill *et al.* 1994). In Norway, it is also known beside tree roots and on earth at the edge of grassy turf on rocks and boulders (Störmer 1969).

Individual plants are probably short-lived, but no details are available. The species is autoicous or synoicous and (in Britain) it frequently produces capsules that ripen in summer. Tubers are unknown but vegetative propagation presumably occurs from the discoid foliar gemmae.

World distribution

In Europe, it is known in Norway, Sweden (where it is listed as *Near Threatened*) and the extreme NW of Finland, mainly in the mountains (Störmer 1969). It is assigned to an Oceanic Boreal-montane floristic element in Europe. Elsewhere, there are records from the Russian Far East, Japan, Alaska, Washington State, Canada, Greenland, Tierra del Fuego and the Falkland Islands.

Threats

O. griffithianum is apparently extinct around the summit

Mosses

of Errigal, where intense pressure from human visitors has eutrophicated and littered potential habitat. Mweelrea has the only population known to survive and, although in a remote location, it occurs only in small quantity there and potentially is at risk from disturbance of the scree by sheep or botanists and from thoughtless collection of specimens.

Conservation

The Mweelrea site and the two localities with old records are all on protected land.

Protected sites with recent records: Mweelrea/Sheeffry/Erriff Complex SAC; **Unprotected sites with recent records:** none.
