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Update on the conservation status of six rare vascular plants



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EU Habitats Directive

- Report every 6 years on conservation status of species and habitats listed on the Directive
- 2015-2018: Rare plants monitoring survey carried out by BEC Consultants on behalf of NPWS to assess conservation status
- Annex II species: require designation of SACs for their conservation
- Annex V species: relates to species liable to collection in the wild

The Six Vascular Plant Species

- Annex II Killarney fern (*Trichomanes speciosum* = *Vandenboschia speciosa*)
- Annex II Marsh saxifrage (*Saxifraga hirculus*)
- Annex V Clubmosses: four “*Lycopodium*” spp.
 - Alpine clubmoss (*Diphasiastrum alpinum*)
 - Fir clubmoss (*Huperzia selago*)
 - Stag’s-horn clubmoss (*Lycopodium clavatum*)
 - Marsh clubmoss (*Lycopodiella inundata*)
 - Collected for decorative purposes in parts of the world, e.g. North America, where they are much more common (e.g. *L. clavatum*)

Killarney Fern

Sporophyte



- Damp, shady, humid habitats (e.g. ravine woodlands)
- Very sensitive to drying out
- Distribution largely western
- Stronghold in Kerry but largest single population is in Waterford
- Collected by the Victorians
- Red List: Least Concern (Wyse Jackson *et al.*, 2016)



Range: **Favourable, stable**
Population: **Favourable, stable**
Habitat for the species: **Favourable, stable**
Pressures/Threats: **None significant**
Future prospects: **Favourable**
Overall Conservation Status: **Favourable, stable**

Gametophyte

Photos by Emer Ní Dhúill
Info courtesy of NPWS

Marsh Saxifrage



- Very restricted habitat: Mineral flushes in blanket bogs
- Habitat is very wet, sensitive to trampling (livestock, ecologists!)
- Restricted distribution: Co. Mayo, Co. Sligo
- Flora (Protection) Order, 2015 (S.I. No. 356/2015)
- Red List: all-Ireland population assessed as Near Threatened (Wyse Jackson *et al.*, 2016)

Range: Favourable, stable

Population: Favourable, stable

Habitat for the species: Favourable, stable

Pressures/Threats: None significant

Future prospects: Favourable

Overall Conservation Status: Favourable, stable

Photo by Maria Long
Info courtesy of NPWS

Alpine clubmoss

(*Diphasiastrum alpinum*)



- Alpine heath
- Habitat often rocky, sparsely vegetated
- Distribution is altitudinally restricted
- Red List: all-Ireland population assessed as Near Threatened (Wyse Jackson *et al.*, 2016)

Range: Favourable, stable

Population: Favourable, stable

Habitat for the species: Favourable, stable

Pressures/Threats: None significant

Future prospects: Favourable

Overall Conservation Status: Favourable, stable

Photo by Orla Daly
Info courtesy of NPWS

Fir clubmoss

(Huperzia selago)

- Much more widespread than the other clubmosses
- Generally upland distribution, mostly above 300 m, but also on lowland bogs
- Acidic, nutrient-poor, sandy or peaty soils
- Threats to the habitat from overgrazing and trampling by livestock



Range: **Favourable**

Population: **Favourable**

Habitat for the species: **Inadequate**

Pressures/Threats: **Overgrazing**

Future prospects: **Inadequate**

Overall Conservation Status: **Inadequate**

Photo by Maria Long
Info courtesy of NPWS

Stag's-horn clubmoss

(*Lycopodium clavatum*)

- Habitat similar to Alpine clubmoss: high-altitude Alpine heath
- Red list status: Near Threatened (Wyse Jackson *et al.*, 2016)
- Current pressures from hiking, unsuitable grazing; future threats may come from forestry expansion



Range: **Favourable**

Population: **Inadequate**

Habitat for the species: **Inadequate**

Pressures/Threats: **Inappropriate grazing; excessive disturbance**

Future prospects: **Inadequate**

Overall Conservation Status: **Inadequate**

Marsh clubmoss

(Lycopodiella inundata)



- Lake margins, open patches on peaty soil in heathland, flushes and bog; Lowland
- Moderate levels of disturbance beneficial (inundation, grazing, trampling): maintain open habitat
- Rarest clubmoss: FPO species
- Red list status: Vulnerable (Wyse Jackson *et al.*, 2016)
- No obvious current pressures but drainage and agricultural improvement would be damaging

Range: **Favourable**

Population: **Favourable**

Habitat for the species: **Favourable**

Pressures/Threats: **None significant**

Future prospects: **Favourable**

Overall Conservation Status: **Favourable**

Special acknowledgements for data

- BSBI (2015-2018) Surveys of sites for Lycopodiaceae species in the Republic of Ireland, 2015-2018. Unpublished recording cards of surveys undertaken by members of the Botanical Society of Britain and Ireland (BSBI) on behalf of the National Parks and Wildlife Service, Dublin.
- BSBI (2018) Plant records extracted from the BSBI's Distribution Database following data request.
- NBDC (2018) Information from the National Biodiversity Data Centre downloaded from <https://maps.biodiversityireland.ie>.
- NPWS (2018) NPWS Irish Vascular Plants Database. Recorder 6 database of records from Ireland for protected, threatened, rare, scarce and other vascular plant species.
- Rare plants monitoring survey carried out by BEC for NPWS – five Irish Wildlife Manuals forthcoming during 2019 (including two bryophyte species also surveyed).