

Scientific name	<i>Molinia caerulea</i> – <i>Potentilla erecta</i> – <i>Erica tetralix</i> heath
Common name	Purple Moor-grass – Tormentil – Cross-leaved Heath heath
Community code	HE4D

Vegetation

Dense *Molinia caerulea* dominates this community, often forming large tussocks and a thick litter layer. The only other constant species is *Potentilla erecta*. Occasionally, there is some spindly growth of *Erica tetralix*, *Calluna vulgaris* or *Myrica gale*, but dwarf shrub cover is typically very low. Other occasional plants are *Succisa pratensis*, *Juncus effusus*, *Agrostis canina/vinealis* and *Anthoxanthum odoratum*. The bryophyte layer is very sparse or absent; some hunting amongst the leaf litter may reveal some patches of *Sphagnum capillifolium*, *Hypnum jutlandicum* or *Hylocomium splendens*.

Ecology

This is mostly a community of lowland peatlands (mean altitude = 140 m, $n = 52$; mean slope = 4.0°, $n = 41$), usually occurring as a part of wet heaths or disturbed blanket bog. Soils are wet, acidic and infertile (mean extent of bare peat = 2.9%, $n = 46$). There may be some degree of flushing but it is not pronounced.

Sub-communities

No sub-communities have been described for this community.

Similar communities

The very high cover of *Molinia caerulea* separates this assemblage from the other bog and heath communities, even the others within the HE4 *Molinia caerulea* – *Polygala serpyllifolia* group. Dense *Molinia tussocks* are also found in the similar GL1D *Molinia caerulea* – *Potentilla erecta* grassland, but that is a community of more mesotrophic wetland systems and the tussocks are accompanied by species such as *Agrostis stolonifera*, *Filipendula ulmaria*, *Holcus lanatus* and *Galium palustre*.

Records and distribution

Number of records (all)

Clearly assigned:	220
Transitional:	55
Total:	275

Number of records (mapped)

2001-2020:	101
1986-2000:	79
1971-1985:	29
Pre-1971:	16
Total:	225

Number of hectads (by most recent time period)

2001-2020:	47
1986-2000:	18
1971-1985:	7
Pre-1971:	1
Total:	73

Number of hectads (records in each time period)

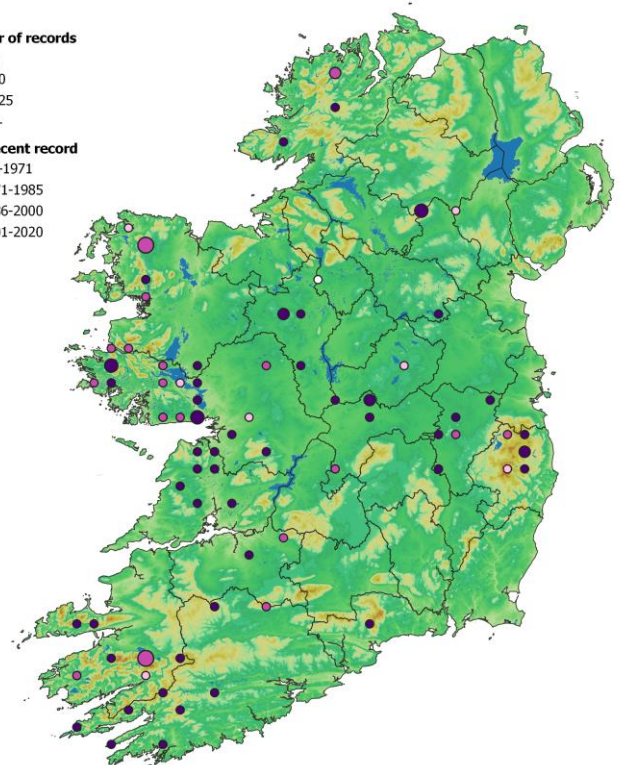
2001-2020:	47
1986-2000:	24
1971-1985:	11
Pre-1971:	4

Number of records

- 1-3
- 4-10
- 11-25
- 26+

Most recent record

- pre-1971
- 1971-1985
- 1986-2000
- 2001-2020



Synoptic table (n = 190)

Species	Frequency	Cover	Species	Frequency	Cover
	(from I-V)	min (med) max		(from I-V)	min (med) max
<i>Molinia caerulea</i>	V	6-(9)-10	<i>Sphagnum palustre</i>	I	1-(5)-8
<i>Potentilla erecta</i>	V	+- (3)-8	<i>Scleropodium purum</i>	I	+- (2)-5
<i>Anthoxanthum odoratum</i>	II	+- (3)-8	<i>Agrostis capillaris</i>	I	1-(3)-5
<i>Succisa pratensis</i>	II	+- (3)-7	<i>Carex echinata</i>	I	1-(2)-5
<i>Erica tetralix</i>	II	2-(2)-5	<i>Sphagnum subnitens</i>	I	2-(3)-7
<i>Agrostis canina/vinealis</i>	II	2-(3)-7	<i>Sphagnum subsecundum</i> agg.	I	1-(3)-8
<i>Calluna vulgaris</i>	II	1-(3)-5	<i>Luzula multiflora</i>	I	1-(3)-5
<i>Juncus effusus</i>	II	1-(4)-9	<i>Polygala serpyllifolia</i>	I	1-(2)-3
<i>Hypnum jutlandicum</i>	II	+- (3)-7	<i>Diplophyllum albicans</i>	I	+- (2)-7
<i>Juncus acutiflorus</i>	I	1-(3)-7	<i>Eriophorum vaginatum</i>	I	+- (3)-5
<i>Sphagnum capillifolium</i>	I	2-(4)-8	<i>Eriophorum angustifolium</i>	I	2-(2)-4
<i>Myrica gale</i>	I	+- (2)-5	<i>Galium palustre</i>	I	2-(3)-5
<i>Hylocomium splendens</i>	I	1-(2)-8	<i>Galium saxatile</i>	I	2-(3)-7
<i>Carex panicea</i>	I	1-(2)-6	<i>Sphagnum papillosum</i>	I	1-(3)-9
<i>Holcus lanatus</i>	I	1-(3)-7	<i>Agrostis stolonifera</i>	I	+- (3)-4
<i>Rhytidiadelphus squarrosus</i>	I	+- (2)-4	<i>Festuca vivipara</i>	I	1-(2)-5
<i>Calypogeia fissa</i>	I	+- (3)-7	<i>Polytrichum commune</i>	I	2-(3)-5
<i>Thuidium tamariscinum</i>	I	+- (3)-5	<i>Rhytidiadelphus loreus</i>	I	1-(3)-7
<i>Erica cinerea</i>	I	1-(3)-5	<i>Blechnum spicant</i>	I	1-(2)-3
<i>Kindbergia praelonga</i>	I	1-(5)-7	<i>Lophocolea bidentata</i>	I	+- (2)-5

Affinities

GHI: GS4 Wet grassland / HH3 Wet heath / PB3 Lowland blanket bog

ZM: CM05A Molinion caeruleae Koch 1926

EUNIS: F4.13 *Molinia caerulea* wet heaths

NVC: M25 *Molinia caerulea*-*Potentilla erecta* mire (57.2%)

Annex I: 4010 Wet heath / 7120 Degraded raised bogs / 7130 Blanket bog (active)*

Proxy environmental data

Light: 6.9 Reaction: 3.2 Wetness: 7.6 Fertility: 2.3 Salinity: 0.0

Conservation value

This is on average a very species-poor community (species/4 m² = 12.4, n = 90). Most examples represent either non-priority versions of EU HD Annex I habitat 7130 Blanket bog (active)* or rather marginal types of habitat 4010 Wet heath, depending upon context and peat depth.

Management

Whilst this vegetation may occur naturally as a type of weak flush, it has probably developed in many instances due to negative impacts on the habitat, such as overgrazing, typically by sheep, or burning. On deeper peats, turf-cutting and associated drainage works may be contributing factors. Threats include agricultural improvement and afforestation.

Key references

Farrell, C.A. (2001) An ecological study of intact and industrial cutaway Atlantic blanket bog at Bellacorick, north-west Mayo (Ph.D. thesis). University College Dublin.

Weekes, L.C. (1990) A phytosociological study and map of the vegetation of Glenveagh National Park and the An Taisce property, Co. Donegal. (M.Sc. Thesis). National University of Ireland Galway.

Wolfe-Murphy, S. A., Murphy, C. (2002). Ecological survey of the Slieve Beagh/Eshbrack Bog area, County Monaghan. (unpublished). Truagh Development Association, Co. Monaghan.

Synopsis version: V2.1

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Synopsis author(s): P.M. Perrin



Photo 1. HE4D *Molinia caerulea* – *Potentilla erecta* – *Erica tetralix* heath, Slieve West, Slieve Mish Mountains, Kerry
(J. Martin, June 2014)



Photo 2. HE4D *Molinia caerulea* – *Potentilla erecta* – *Erica tetralix* heath, Fiddandarry, Ox Mountains, Sligo
(R. Hodd, June 2012)