

<b>Scientific name</b>	<i>Juncus squarrosus</i> – <i>Rhytidiadelphus loreus</i> heath
<b>Common name</b>	Heath Rush – Little Shaggy-moss heath
<b>Community code</b>	HE3G

### Vegetation

This heathy upland community is dominated by a combination of *Calluna vulgaris* and the tough, wiry leaves of *Juncus squarrosus*, attended by some low growth of *Vaccinium myrtillus*. Frequently, there is some sparse cover of *Galium saxatile* with its diminutive white flowers or a grassy element provided by *Agrostis capillaris*, *Agrostis canina/vinealis* or *Nardus stricta*. *Empetrum nigrum* is occasional here as also are *Eriophorum vaginatum* and *Eriophorum angustifolium* which occur on deeper peats. The bryophyte layer is quite diverse. The pleurocarps *Rhytidiadelphus loreus*, *Hypnum jutlandicum* and *Hylocomium splendens* are constants as are the whitish-grey patches of *Racomitrium lanuginosum* and the scarlet hummocks of *Sphagnum capillifolium*. Liverworts tend to be a feature, the most common being *Scapania gracilis*, but *Diplophyllum albicans*, *Lophozia ventricosa*, *Calypogeia muelleriana* and *Anastrepta orcadensis* may also be found.

### Ecology

This is a community of acidic, infertile, wet upland peaty soils, prominent in areas where sheep grazing has favoured the rhizomatous expansion of *Juncus squarrosus*. It usually represents a variant of montane heath and may occur on shallow soils where upland bog has eroded away. It also occurs on deeper soils where it forms a rather poor version of upland blanket bog itself. Mean altitude = 641 m,  $n = 63$ ; mean slope =  $9.2^\circ$ ,  $n = 63$ ; mean extent of bare rock = 0.8%,  $n = 63$ .

### Sub-communities

No sub-communities have been described for this community.

### Similar communities

From other heath types, the abundance of *Juncus squarrosus* helps distinguish this community. In HE3C *Calluna vulgaris* – *Nardus stricta* heath, this rush can also be plentiful but there *Nardus* tends to be a dominant. *Juncus squarrosus* also occurs in HE3A *Calluna vulgaris* – *Hylocomium splendens* heath, but there *Racomitrium lanuginosum* is seldom found.

### Records and distribution

#### Number of records (all)

Clearly assigned:	92
Transitional:	15
Total:	107

#### Number of records (mapped)

2001-2020:	65
1986-2000:	23
1971-1985:	3
Pre-1971:	13
Total:	104

#### Number of hectads (by most recent time period)

2001-2020:	20
1986-2000:	10
1971-1985:	0
Pre-1971:	2
Total:	32

#### Number of hectads (records in each time period)

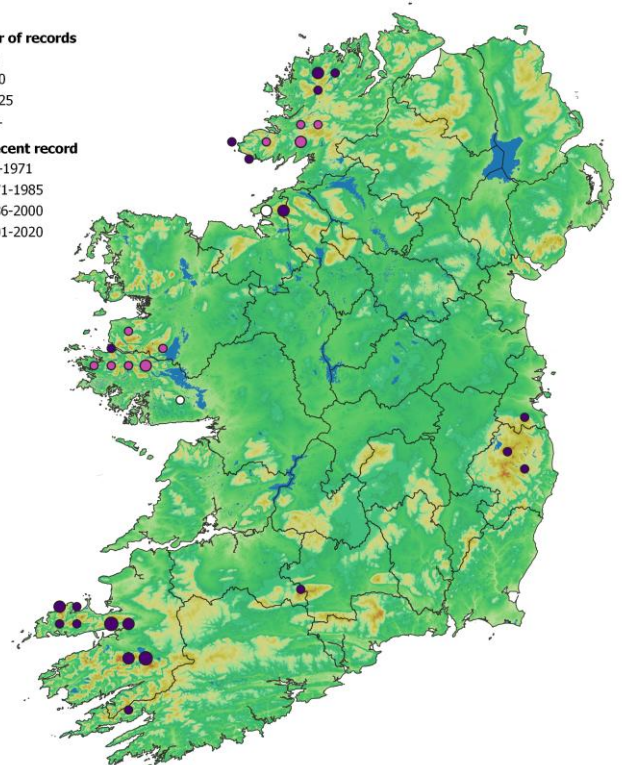
2001-2020:	20
1986-2000:	10
1971-1985:	1
Pre-1971:	4

#### Number of records

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

#### Most recent record

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



### Synoptic table (n = 84)

Species	Frequency (from I-V)	Cover min (med) max	Species	Frequency (from I-V)	Cover min (med) max
<i>Juncus squarrosus</i>	V	5-(7)-9	<i>Cladonia uncialis</i>	II	+-(2)-3
<i>Rhytidiadelphus loreus</i>	V	1-(3)-8	<i>Cladonia arbuscula</i>	II	+-(2)-5
<i>Calluna vulgaris</i>	V	1-(7)-9	<i>Deschampsia flexuosa</i>	II	2-(2)-3
<i>Hypnum jutlandicum</i>	V	+-(3)-7	<i>Luzula sylvatica</i>	II	1-(2)-5
<i>Potentilla erecta</i>	IV	+-(2)-7	<i>Nardus stricta</i>	II	2-(3)-7
<i>Hylocomium splendens</i>	IV	+-(3)-7	<i>Agrostis canina/vinealis</i>	II	1-(2)-5
<i>Scapania gracilis</i>	IV	+-(3)-7	<i>Lophocolea bidentata</i>	II	+-(3)-3
<i>Racomitrium lanuginosum</i>	IV	2-(4)-8	<i>Anastrepta orcadensis</i>	II	+-(2)-5
<i>Vaccinium myrtillus</i>	IV	1-(3)-5	<i>Campylopus flexuosus</i>	II	+-(2)-4
<i>Sphagnum capillifolium</i>	IV	1-(5)-8	<i>Eriophorum angustifolium</i>	II	+-(2)-5
<i>Pleurozium schreberi</i>	III	+-(2)-5	<i>Eriophorum vaginatum</i>	II	1-(3)-5
<i>Diplophyllum albicans</i>	III	+-(2)-5	<i>Anthoxanthum odoratum</i>	I	2-(4)-5
<i>Dicranum scoparium</i>	III	+-(2)-3	<i>Carex bigelowii</i>	I	2-(3)-5
<i>Galium saxatile</i>	III	+-(2)-5	<i>Polytrichum commune</i>	I	+-(2)-5
<i>Lophozia ventricosa</i>	III	+-(2)-3	<i>Ptilidium ciliare</i>	I	1-(2)-3
<i>Plagiothecium undulatum</i>	III	+-(2)-5	<i>Cladonia portentosa</i>	I	+-(2)-4
<i>Agrostis capillaris</i>	III	+-(2)-5	<i>Trichophorum cesp./germanicum</i>	I	1-(3)-4
<i>Rhytidiadelphus squarrosus</i>	II	+-(2)-5	<i>Tritomaria quinquedentata</i>	I	+-(2)-3
<i>Empetrum nigrum</i>	II	1-(3)-5	<i>Erica cinerea</i>	I	1-(3)-3
<i>Calypogeia muelleriana</i>	II	+-(2)-3	<i>Saccogyna viticulosa</i>	I	+-(2)-3

#### Affinities

GHI: HH4 Montane heath / PB2 Upland blanket bog

ZM: CI01C Nardo-Juncion squarrosi (Oberd. 1957) Passarge 1964 / PB01B Oxycocco-Ericion tetralicis Nordhagen ex Tx. 1937)

EUNIS: D1.226 Hiberno-Britannic upland blanket bog wet heaths / F2.251 Hiberno-Scotian dwarf mountain heaths

NVC: M19 *Calluna vulgaris-Eriophorum vaginatum* blanket mire (56.7%)

Annex I:4060 Alpine and subalpine heath / 7130 Blanket bogs (active)\*

#### Proxy environmental data

Light: 6.7 Reaction: 2.2 Wetness: 6.2 Fertility: 1.9 Salinity: 0.0

#### Conservation value

Most examples of this community correspond with EU HD Annex I habitat 4060 Alpine and subalpine heath. On deeper soils, however, it may correspond to a rather degraded form of habitat 7130 Blanket bogs (active)\*. It is a species-rich community (species/4 m<sup>2</sup> = 21.2, n = 75).

#### Management

These heaths and bogs, which often form parts of commonages, may be used as rough grazing land (typically for sheep). Indeed, the presence of this community may be an indicator of overgrazing. Climate change threatens arctic-alpine species which are restricted to montane communities such as this.

#### Key references

Hodd, R. (2012) A study of the oceanic montane vegetation and bryophyte communities of Western Ireland and their potential response to climate change. (Ph.D. thesis). National University of Ireland Galway.

Perrin, P.M., Barron, S.J., Roche, J.R., O'Hanrahan, B. (2014) Guidelines for a national survey and conservation assessment of upland vegetation and habitats in Ireland. *Irish Wildlife Manuals* No. 79. National Parks and Wildlife Service, Dublin. [and associated series of site reports from the National Survey of Upland Habitats]

**Synopsis version:** V1.1

**Synopsis date:** March 2025

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Photo 1: HE3G *Juncus squarrosus* – *Rhytidiadelphus loreus* heath, Knockauncorragh, Slieve Mish Mountains, Kerry  
(R. Hodd, June 2014).



Photo 2: HE3G *Juncus squarrosus* – *Rhytidiadelphus loreus* heath, Truskmore, Dartry Mountains, Sligo  
(B. O'Hanrahan, June 2009).