



Scientific name	<i>Angelica sylvestris</i> – <i>Breutelia chrysocoma</i> ledge community
Common name	Wild Angelica – Golden-head Moss ledge community
Community code	RH2D

Vegetation

The field layer of this variable ledge community usually contains *Festuca vivipara* and *Viola riviniana/reichenbachiana*. Frequently there are also some tufts of *Carex viridula* and *Carex pulicaris* plus *Anthoxanthum odoratum*, *Thymus polytrichus*, *Euphrasia officinalis* agg., *Angelica sylvestris* and the non-native forb *Epilobium brunnescens*. *Calluna vulgaris* may provide some dwarf shrub cover. *Breutelia chrysocoma* and *Ctenidium molluscum* are the main bryophytes with *Hylocomium splendens* also frequent. There are a large number of occasional species, including some species typically associated with lowland grassland such as *Angelica sylvestris*, *Primula vulgaris*, *Hypericum pulchrum* and *Succisa pratensis*. *Festuca rubra*, when present, can form dense mats. The deep cushions of *Amphidium mougeotii* and *Anoetangium aestivum* may also be found on the rock face here.

Ecology

This a community of wet ledges and crevices on cliff faces, or less frequently scree slopes, in the uplands (mean cover bare rock = 26%, $n = 36$; mean altitude = 450 m, $n = 36$; mean slope = 63°, $n = 36$). The geology may be calcareous or siliceous, but if the latter there tends to be some base-rich seepage present that raises the pH levels. Soils are thin (mean soil depth = 4.9 cm, $n = 36$), mildly acidic, quite moist and infertile.

Sub-communities

Two sub-communities have been described for this community, but they are rather tentative due to the small sample sizes. The *Festuca rubra* – *Diplophyllum albicans* sub-community (RH2Di) represents more acidic conditions, whereas the *Campanula rotundifolia* – *Hypericum pulchrum* sub-community (RH2Dii) represents more basic conditions.

Similar communities

This community is rather intermediate between the calcareous RH1A *Asplenium trichomanes* – *Ctenidium molluscum* crevice community and the RH2A *Saxifraga spathularis* – *Isoetecium myosuroides* crevice community, but is wetter than either. Ferns are less frequent here than those two assemblages and there are several more grassland species present.

Records and distribution

Number of records (all)

Clearly assigned:	48
Transitional:	15
Total:	63

Number of records (mapped)

2001-2015:	36
1986-2000:	12
1971-1985:	15
Pre-1971:	0
Total:	63

Number of hectads (most recent records)

2001-2015:	17
1986-2000:	6
1971-1985:	1
Pre-1971:	0
Total:	24

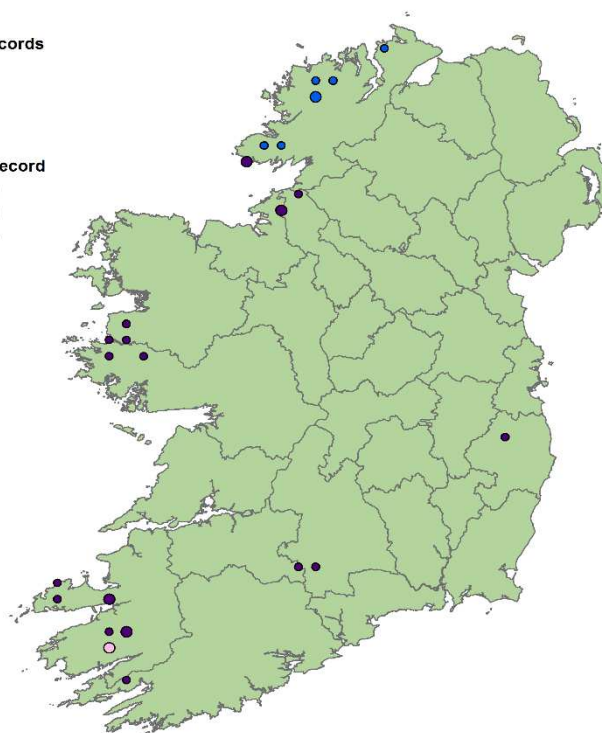
Number of hectads (all mapped records)

2001-2015:	17
1986-2000:	7
1971-1985:	2
Pre-1971:	0

Number of records



Most recent record



Synoptic table (n = 36)

Species	Frequency (from I-V)	Cover min (med) max	Species	Frequency (from I-V)	Cover min (med) max
<i>Festuca vivipara</i>	V	+- (4)-7	<i>Saxifraga spathularis</i>	II	2-(3)-5
<i>Breutelia chrysocoma</i>	V	+- (4)-9	<i>Agrostis capillaris</i>	II	+- (3)-5
<i>Viola riviniana/reichenbachiana</i>	IV	+- (3)-5	<i>Frullania tamarisci</i>	II	+- (2)-7
<i>Ctenidium molluscum</i>	IV	+- (3)-7	<i>Aneura pinguis</i>	II	+- (1)-4
<i>Epilobium brunnescens</i>	III	+- (3)-5	<i>Hypericum pulchrum</i>	II	+- (2)-3
<i>Carex pulicaris</i>	III	1-(3)-5	<i>Diplophyllum albicans</i>	II	+- (3)-4
<i>Angelica sylvestris</i>	III	2-(3)-5	<i>Succisa pratensis</i>	II	+- (2)-5
<i>Carex viridula</i>	III	1-(3)-5	<i>Tortella tortuosa</i>	II	+- (2)-4
<i>Hylocomium splendens</i>	III	+- (1)-3	<i>Thuidium tamariscinum</i>	II	+- (3)-3
<i>Calluna vulgaris</i>	III	+- (3)-5	<i>Jasione montana</i>	II	1-(2)-3
<i>Anthoxanthum odoratum</i>	III	1-(3)-5	<i>Blechnum spicant</i>	II	+- (3)-5
<i>Euphrasia officinalis</i> agg.	III	+- (1)-5	<i>Anoetangium aestivum</i>	II	+- (3)-7
<i>Thymus polytrichus</i>	III	+- (3)-5	<i>Fissidens osmundoides</i>	II	+- (2)-4
<i>Galium saxatile</i>	II	+- (2)-5	<i>Rhytidiadelphus squarrosus</i>	II	+- (1)-3
<i>Festuca rubra</i>	II	2-(4)-7	<i>Oxalis acetosella</i>	II	2-(3)-4
<i>Blindia acuta</i>	II	+- (1)-4	<i>Luzula sylvatica</i>	II	1-(4)-5
<i>Primula vulgaris</i>	II	+- (2)-5	<i>Sedum rosea</i>	II	1-(4)-5
<i>Campanula rotundifolia</i>	II	1-(3)-5	<i>Amphidium mougeotii</i>	II	+- (3)-7
<i>Racomitrium lanuginosum</i>	II	+- (3)-5	<i>Calliergonella cuspidata</i>	II	+- (2)-3
<i>Rhytidiadelphus loreus</i>	II	+- (1)-3	<i>Hypnum jutlandicum</i>	II	1-(3)-4

Affinities

GHI: ER2 Exposed calcareous rock / ER1 Exposed siliceous rock / ER3 Siliceous loose rock and scree

ZM: THL-06B Androsacion alpinae Br.-Bl. et Jenny 1926

EUNIS: H3.2B Lowland middle European calcareous cliff communities / H3.19 Lowland northern- and middle-European siliceous cliffs / H2.1 Cold siliceous screes

NVC: U17d *Luzula sylvatica* - *Geum rivale* tall herb community *Primula vulgaris* - *Hypericum pulchrum* sub-community (41.9%)

Annex I: 8210 Calcareous rocky slopes / 8220 Siliceous rocky slopes / 8110 Siliceous scree

Proxy environmental data

Light: 6.8 Reaction: 4.9 Wetness: 6.2 Fertility: 2.7 Salinity: 0.2

Conservation value

Examples of this rather species-rich community from cliff faces with ferns, saxifrages or arctic-alpine species are likely to qualify as EU HD Annex I habitats 8210 Calcareous rocky slopes or 8220 Siliceous rocky slopes. Instances from scree slopes will qualify as 8110 Siliceous scree (or, very rarely, 8120 Eutric scree).

Management

Some more accessible areas of this vegetation may be sheep-grazed but it is essentially unmanaged. The impact of the non-native *Epilobium brunnescens* has not been investigated and hitherto no known management action has been taken. Climate change threatens arctic-alpine species which are restricted to such upland sites.

Key references

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, Department of Arts, Heritage and the Gaeltacht.

Synopsis version: V1.0

Synopsis date: November 2017

Synopsis author(s): P.M. Perrin



Photo 1. RH2D *Angelica sylvestris* – *Breutelia chrysocoma* ledge community, Drumleagh, Galtee Mountains, Tipperary
(R. Hodd/K. McNutt, September 2011)



Photo 2. RH2D *Angelica sylvestris* – *Breutelia chrysocoma* ledge community, Curraheen, Slieve Mish Mountains, Kerry
(R. Hodd, June 2014)