



<b>Scientific name</b>	<i>Asplenium trichomanes</i> – <i>Ctenidium molluscum</i> crevice community
<b>Common name</b>	Maidenhair Spleenwort – Comb-moss crevice community
<b>Community code</b>	RH1A

### Vegetation

This is a rather variable community with typically no dominants and with just three constant species, *Sesleria caerulea* and the calcicole mosses *Tortella tortuosa* and *Neckera crispa*. Ferns are a regular feature with *Asplenium trichomanes* frequently present while *Asplenium ruta-muraria*, *Cystopteris fragilis* and *Phyllitis scolopendrium* are all occasionally encountered. *Asplenium viride* is a rarer find. The main forbs are *Geranium robertianum*, *Campanula rotundifolia* and *Thymus polytrichus*, but the non-native species *Epilobium brunnescens* is also a feature here, particularly on wet cliff faces. Patches of *Fissidens dubius* and *Breutelia chrysocoma* are frequent additions to the bryophyte layer.

### Ecology

This is a sparsely vegetated rocky habitat community (mean bare rock cover = 63%,  $n = 72$ ) that occurs in range of habitats comprising crevices on calcareous cliffs, scree slopes and limestone pavements (mean altitude = 306 m,  $n = 66$ ; mean slope = 55°,  $n = 58$ ). Where pockets of soil have accumulated, they are skeletal (mean soil depth = 1.9 cm,  $n = 56$ ) and conditions are moist, base-rich and infertile.

### Sub-communities

There are two sub-communities described. Graminoids are generally more frequent in the *Sesleria caerulea* – *Carex flacca* sub-community (RH1Ai) than in the *Tortella tortuosa* – *Asplenium trichomanes* sub-community (RH1Aii) in which bryophytes tend to be more frequent. *Sesleria caerulea* is invariably present in RH1Ai but only occasional in RH1Aii.

### Similar communities

Open limestone pavement vegetation is also represented by the RH1B *Teucrium scorodonia* – *Mycelis muralis* pavement community. However, *Teucrium* and *Mycelis* are much more frequent in that community, as are a number of woody species: *Prunus spinosa*, *Hedera helix*, *Corylus avellana*, *Rubus fruticosus* agg. and *Rosa spinosissima*. The present community also shares several species with the RH2D *Angelica sylvestris* – *Breutelia chrysocoma* ledge community, but that is an assemblage of wetter, less base-rich conditions where ferns are much less prevalent.

### Records and distribution

#### Number of records (all)

Clearly assigned:	84
Transitional:	25
Total:	109

#### Number of records (mapped)

2001-2015:	92
1986-2000:	2
1971-1985:	1
Pre-1971:	14
Total:	109

#### Number of hectads (most recent records)

2001-2015:	24
1986-2000:	2
1971-1985:	0
Pre-1971:	3
Total:	29

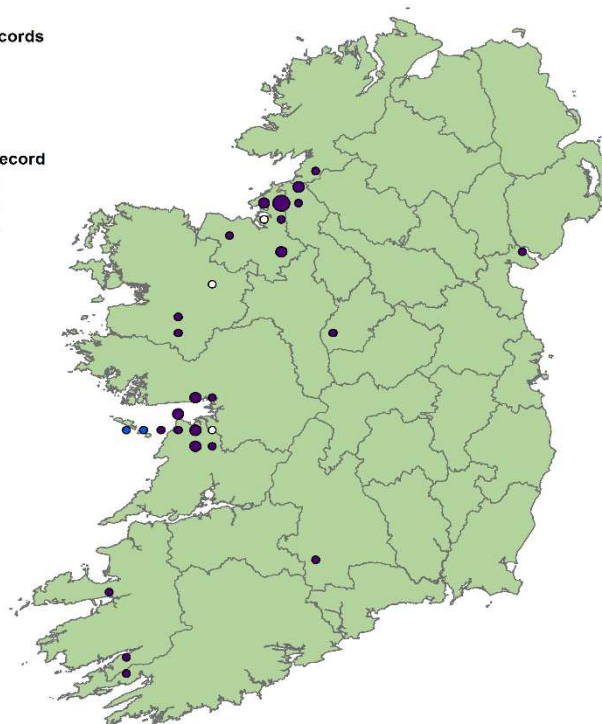
#### Number of hectads (all mapped records)

2001-2015:	24
1986-2000:	2
1971-1985:	1
Pre-1971:	6

#### Number of records



#### Most recent record



### Synoptic table (n = 76)

Species	Frequency		Cover		Species	Frequency		Cover	
	(from I-V)		min	(med) max		(from I-V)		min	(med) max
<i>Ctenidium molluscum</i>	V		+-	(3)-6	<i>Trichostomum brachydontium</i>	II		+-	(3)-5
<i>Sesleria caerulea</i>	IV		+-	(4)-7	<i>Taraxacum officinale</i> agg.	II		+-	(1)-5
<i>Tortella tortuosa</i>	IV		+-	(3)-5	<i>Festuca ovina</i>	II		1-	(3)-6
<i>Neckera crispa</i>	III		+-	(3)-8	<i>Thamnobryum alopecurum</i>	II		+-	(2)-4
<i>Asplenium trichomanes</i>	III		+-	(2)-5	<i>Scapania aspera</i>	II		+-	(2)-3
<i>Geranium robertianum</i>	III		+-	(2)-5	<i>Euphrasia officinalis</i> agg.	II		+-	(1)-2
<i>Fissidens dubius</i>	III		+-	(1)-3	<i>Succisa pratensis</i>	II		+-	(2)-4
<i>Campanula rotundifolia</i>	III		+-	(2)-3	<i>Viola riviniana/reichenbachiana</i>	I		+-	(1)-2
<i>Breutelia chrysocoma</i>	III		+-	(3)-7	<i>Hedera helix</i>	I		1-	(3)-4
<i>Thymus polytrichus</i>	III		+-	(2)-4	<i>Scleropodium purum</i>	I		+-	(1)-3
<i>Epilobium brunnescens</i>	II		+-	(2)-5	<i>Senecio jacobaea</i>	I		+-	(1)-2
<i>Asplenium ruta-muraria</i>	II		+-	(2)-5	<i>Rhytidiadelphus triquetrus</i>	I		+-	(1)-5
<i>Festuca rubra</i>	II		+-	(3)-5	<i>Teucrium scorodonia</i>	I		1-	(2)-3
<i>Pellia endiviifolia</i>	II		3-	(3)-4	<i>Asplenium viride</i>	I		+-	(2)-4
<i>Cystopteris fragilis</i>	II		1-	(2)-4	<i>Linum catharticum</i>	I		+-	(1)-2
<i>Carex flacca</i>	II		1-	(3)-6	<i>Corylus avellana</i>	I		+-	(4)-7
<i>Phyllitis scolopendrium</i>	II		+-	(2)-4	<i>Orthothecium rufescens</i>	I		1-	(3)-7
<i>Plagiomnium undulatum</i>	II		+-	(1)-2	<i>Dicranum scoparium</i>	I		+-	(1)-3
<i>Saxifraga aizoides</i>	II		1-	(3)-5	<i>Hieracium</i> agg.	I		+-	(2)-4
<i>Ditrichum gracile</i>	II		+-	(1)-5	<i>Thuidium tamariscinum</i>	I		+-	(+)-3

#### Affinities

GHI: ER2 Exposed calcareous rock / ER4 Calcareous scree and loose rock

ZM: POD-04A *Viola biflora* – *Cystopteridion alpinae* Fernández Casas 1970 / THL-05C *Stipion calamagrostis* Jenny-Lips ex Br.-Bl. 1950 / ASP-01A *Asplenio scolopendrii* – *Geranium robertiani* Ferrez 2010

EUNIS: H3.2B Lowland middle European calcareous cliff communities / H2.2 Cold limestone screes / H3.511 Limestone pavements

NVC: OV40 *Asplenium viride* – *Cystopteris fragilis* community (44.4%)

Annex I: 8210 Calcareous rocky slopes / 8240 Limestone pavement\* / 8110 Eutric scree

#### Proxy environmental data

Light: 6.4      Reaction: 6.5      Wetness: 5.5      Fertility: 2.9      Salinity: 0.1

#### Conservation value

Many examples of this community qualify as EU HD Annex I habitat 8120 Calcareous rocky slopes but also included here are plots from the priority habitat 8240 Limestone pavement\* and from habitat 8110 Eutric scree. In the uplands, this vegetation supports species with limited distributions in Ireland including *Saxifraga aizoides* and *Orthothecium rufescens*.

#### Management

Accessible upland examples of this vegetation may be sheep-grazed. Climate change threatens arctic-alpine species which are restricted to upland sites. The impact of the non-native *Epilobium brunnescens* has not been investigated and hitherto no known management action has been taken. Limestone pavement sites are traditionally winter grazed by cattle and the main threats there are scrub encroachment, quarrying and destruction for purposes of agricultural improvement.

#### 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.

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Synopsis author(s): P.M. Perrin





Photo 1. RH1A *Asplenium trichomanes* – *Ctenidium molluscum* crevice community, Gorteendarragh, Arroo Mountain, Leitrim (R. Hodd, September 2012)



Photo 2. RH1A *Asplenium trichomanes* – *Ctenidium molluscum* crevice community, Lyle, Dartry Mountains, Sligo (P. Perrin, August 2012)