

# MC3

## *Rhodiola rosea*-*Armeria maritima* maritime cliff-ledge community

### Synonymy

*Rhodioletum roseae* Nordhagen 1922 *p.p.*

### Constant species

*Festuca rubra*, *Armeria maritima*, *Rhodiola rosea*, *Rumex acetosa*.

### Physiognomy

The luxuriant herbaceous vegetation of this community has no single dominant. Usually, robust plants of *Rhodiola rosea* and *Rumex acetosa* and large cushions of *Armeria maritima* grow from a matrix of *Festuca rubra* in irregular and often fragmentary stands on cliff ledges. *Plantago maritima*, *P. lanceolata* and *Holcus lanatus* are frequent, the last sometimes occurring in abundance. Tall herbs such as *Angelica sylvestris* and *Silene dioica* may be prominent. No bryophytes were recorded.

### Habitat

The *Rhodiola*-*Armeria* community occurs on ledges, mostly north-facing, above the most maritime zone on sea-cliffs. It is found on a variety of rock types where suitable ledges are developed: particularly fine stands may occur on prominently-bedded rocks such as the Old Red Sandstone of Caithness. The soils are irrigated rankers. Stands are quite inaccessible to grazing animals.

### Zonation and succession

Stands of the community are generally discrete but may form part of a fragmented zonation up cliffs from the *Armeria*-*Ligusticum* maritime rock-crevice community to a more intact *Festuca*-*Armeria* maritime grassland or maritime heath above. On very tall cliffs, there may be a transition to less maritime ledge vegetation such as that described by Birks (1973) from Skye as the *Luzula sylvatica*-*Silene dioica* Association.

### Distribution

The *Rhodiola*-*Armeria* community is a northern vegetation type, occurring around the coasts of Scotland from Islay round to Aberdeenshire. Similar vegetation has

been described from the Faeroes (Ostenfeld 1908) and from Norway (Nordagen 1922, Skogen 1965, Engel-skjön 1970).

### Affinities

Birks (1973) placed this sea-cliff ledge vegetation with the inland tall-herb communities of the Mulgedion alpini. The more distinctly maritime nature of the *Rhodiola*-*Armeria* community suggests that it is probably best seen within the compass of the major maritime vegetation types.

### Floristic table MC3

<i>Festuca rubra</i>	V (3–8)
<i>Armeria maritima</i>	V (3–7)
<i>Rhodiola rosea</i>	V (4–6)
<i>Rumex acetosa</i>	IV (3–8)
<i>Holcus lanatus</i>	III (3–7)
<i>Plantago lanceolata</i>	III (2–3)
<i>Plantago maritima</i>	III (2–4)
<i>Silene vulgaris maritima</i>	II (3–5)
<i>Agrostis stolonifera</i>	II (3–4)
<i>Angelica sylvestris</i>	II (2–5)
<i>Ligusticum scoticum</i>	II (2–4)
<i>Silene dioica</i>	II (3–6)
<i>Lotus corniculatus</i>	I (3–4)
<i>Matricaria maritima</i>	I (3–4)
<i>Primula vulgaris</i>	I (2–5)
<i>Leontodon autumnalis</i>	I (2)
Number of samples	13
Number of species/sample	8 (5–14)
Vegetation height (cm)	16 (10–30)
Total cover (%)	82 (20–100)
Altitude (m)	65 (5–210)
Slope (°)	59 (0–80)

