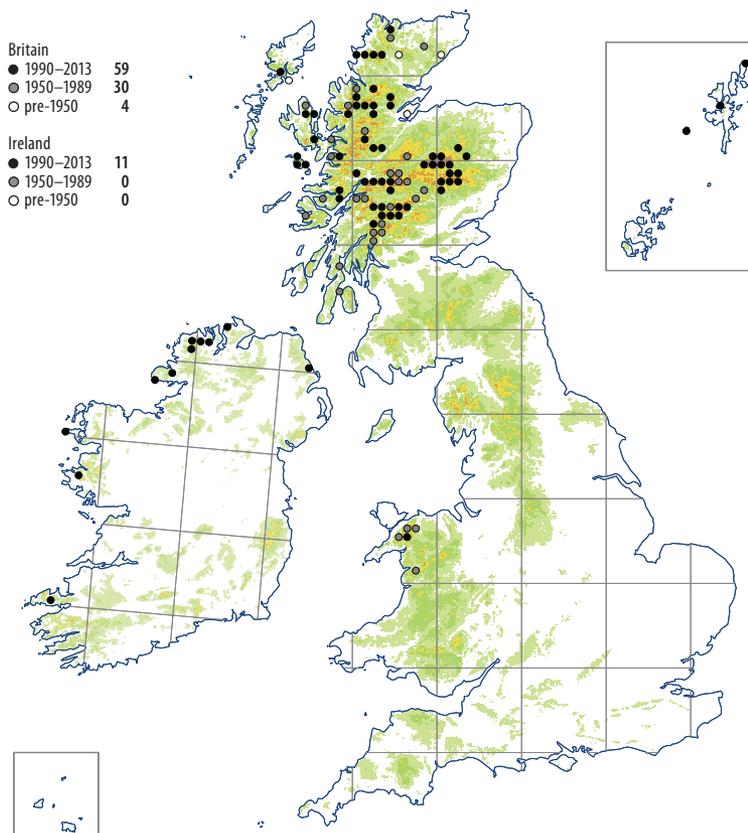


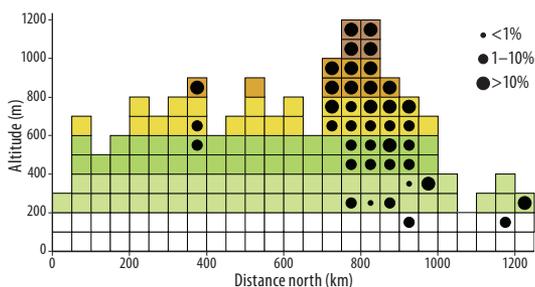
## Anthelia juratzkana



This species is most abundant at high elevations (above 850 m) in the Scottish Highlands on bare, exposed, non-calcareous soils particularly in areas of late snow-lie. Characteristic associates include *Cephalozia* spp., *Gymnocolea inflata*, *Gymnomitrium* spp., *Lophozia* spp., *Marsupella* spp., *Nardia breidlerii*, *N. scalaris*, *Dicranella* spp. and *Ditrichum* spp. At lower altitudes it is basicolous on shallow humus-rich soils overlying deeply weathered rocks, usually where extreme conditions keep the vegetation open. Here it grows with *Eremonotus myriocarpus*, *Jungermannia borealis*, *Marsupella stableri*, *Bryoerythrophyllum ferruginascens* and *Molendoo warburgii*. On Shetland, *Anthelia juratzkana* is found on sparsely vegetated coastal slopes. Altitudinal range: 50–1200 m.

Poarcous; fertile plants and sporophytes are usually abundant, May to September.

Classified by Odland & Munkejord (2008) as one of the most extreme indicators of late snow-lie in southern Norway. Some of its physiological adaptations to such habitats have been demonstrated experimentally by Lösch *et al.* (1983). Its photosynthetic capability, unlike that of *Polytrichastrum sexangulare*, is not impaired by storage for nine months in dark, cold (6°C) and wet conditions in a refrigerator. Net photosynthesis can take place at the low temperatures and light levels expected within a snowbed, and the optimum temperature range for photosynthesis is only 4–11°C. However, the species is exceptionally heat-sensitive, being damaged when moist by temperatures over 30°C.



Circumpolar Arctic-montane; bipolar. European mountains and throughout the Northern Hemisphere at high latitudes, south to Spain, Nepal and California. Also recorded from Tanzania, New Guinea, New Zealand, Mexico, Andean S America, South Georgia and Antarctica.

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