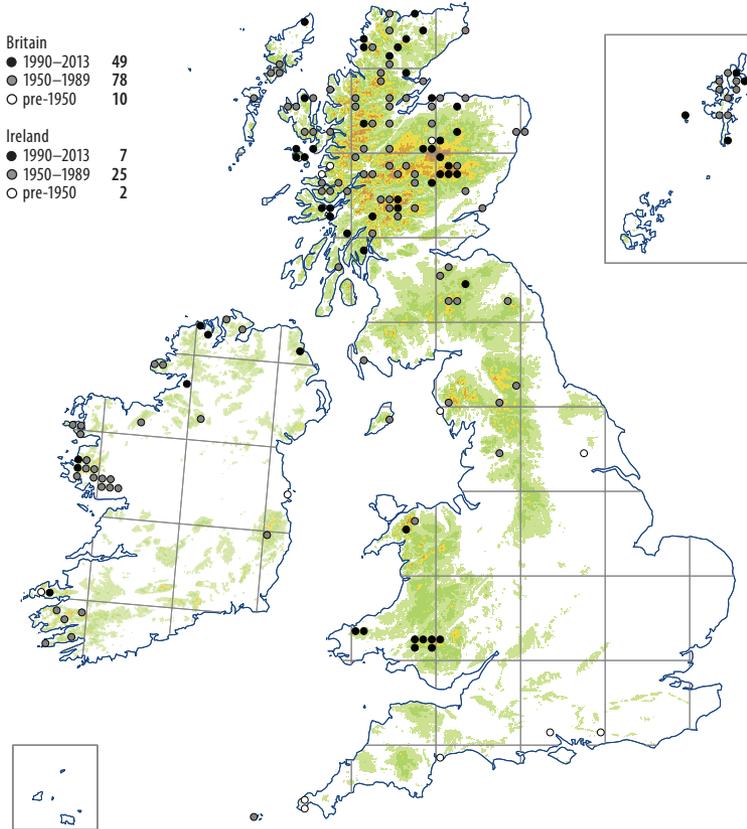


Haplomitrium hookeri



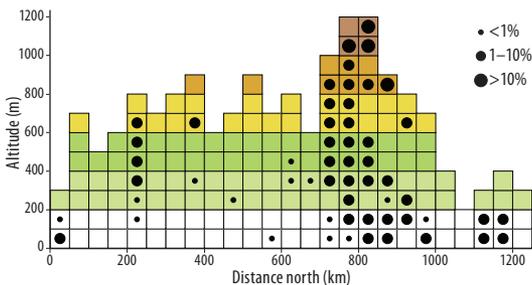
At low altitudes, the only European member of the Calobryales occurs in small quantities on slightly basic sandy or gravelly substrates. Suitable niches are found in a range of habitats including lake, stream and river margins, tracks (especially near fords), flushes on heaths, the floors of old quarries, dune slacks, and detritus in the vicinity of dams. Frequent associates include *Blasia pusilla*, *Fossombronia incurva*, *Pellia epiphylla*, *Riccardia incurvata*, *Scapania* spp., *Anomobryum julaceum* and *Pohlia* spp. At higher altitudes in the Scottish Highlands it is restricted to bryophyte-rich turf ledges and slopes, mainly with a north or east aspect, in corries. Altitudinal range: 0–900 m.

There is little discernible change in the abundance of *Haplomitrium*, with as many new colonies discovered as old ones not revisited. However, five colonies near the south

coast between Cornwall and Sussex were last seen between 100 and 200 years ago, whilst one on the Isles of Scilly was noted as “a minute specimen” in 1967 but has never been refound (Paton & Holyoak, 2005).

Dioicous. Male and female plants and sporophytes are frequent in the summer months. In northern Britain the aerial parts often die back during the winter and an extensive system of underground axes acts as the organ of perennation (Grubb, 1970). The underground axes of *Haplomitrium*, like the tissues of liverworts in some other ancient lineages, are colonised by fungal endophytes belonging to the Glomeromycota, the most ancient lineage of mycorrhizal fungi (Carafa *et al.*, 2003; Ligron *et al.*, 2007).

Conscious searching is needed to locate *Haplomitrium*, and it is likely to be slightly under-recorded.



European Boreal-montane. Widely distributed in Europe from the Alps and Tatra Mountains north to Svalbard and east to European Russia. Siberia, China, Japan, Himalaya; scattered localities in N America from Greenland and New England to Alaska.

J.G. Duckett, rev. S.D.S. Bosanquet