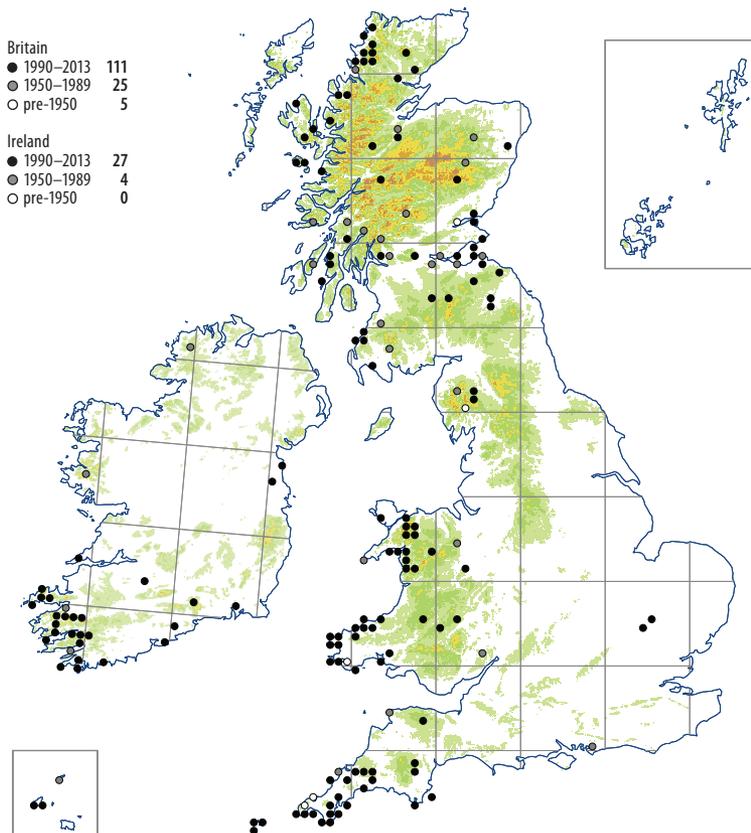


# Grimmia lisae



This species forms greenish-black readily disintegrating often extensive tufts, on acid and basic rocks, including granite, basalt, andesite, schist, slate, conglomerate, serpentine, sandstone and more rarely limestone. It occupies a broad range of habitats, on flat and inclined rock surfaces, on ledges and in crevices, predominantly facing south, west or east, in both open, exposed situations and in partial shade. In the north and west it is particularly characteristic of the tops of boulders and outcrops around lakes, sometimes periodically inundated and silt-covered, often associated with *Racomitrium aciculare*, but it also occurs on slabs and boulders in burns and by streams and rivers, where it may be associated with *Porella obtusata*, *Grimmia laevigata*, *G. ovalis*, *Pterogonium gracile*, *Racomitrium macounii* and *Schistidium agassizii*, and by estuaries. On southern coasts it is often found on dry sunny sandstone sea cliffs. Inland

it grows on outcrops by roads and tracksides, on bridges, and occasionally on walls and stonework in churchyards, remote from water; there is one record from a churchyard tarmac path. In Cambridgeshire it has been found on ledges on church walls and on the upper surface of Oolitic Limestone gravestones with *Didymodon vinealis*, *G. pulvinata*, *Syntrichia montana* and *Tortula muralis*, habitats apparently indistinguishable from those of *G. dissimulata* (Porley *et al.*, 2004). Altitudinal range: 0–740 m.

Dioicous; capsules are unknown in Britain and Ireland.

*Grimmia lisae* has been much confused with *G. trichophylla* and related species but its occurrence in Britain and Ireland was clarified by Maier (2002a, 2010). *G. retracta*, *G. subsquarrosa*, *G. robusta* and *G. britannica* (Smith, 1992) are here regarded as synonymy, but not all specimens under these names belong to *G. lisae*. Its known distribution remains incomplete.

European Southern-temperate. S and W Europe, known from many Mediterranean countries and islands, north in C Europe to Germany and Switzerland, very rare further east (Hungary and European Turkey). Macaronesia, N Africa. SW Asia. West coast of N America (Vancouver south to Mexico) and Hawaii. It is apparently confined to the Northern Hemisphere, but taxonomic problems mean that there are many uncertainties about its worldwide distribution.

