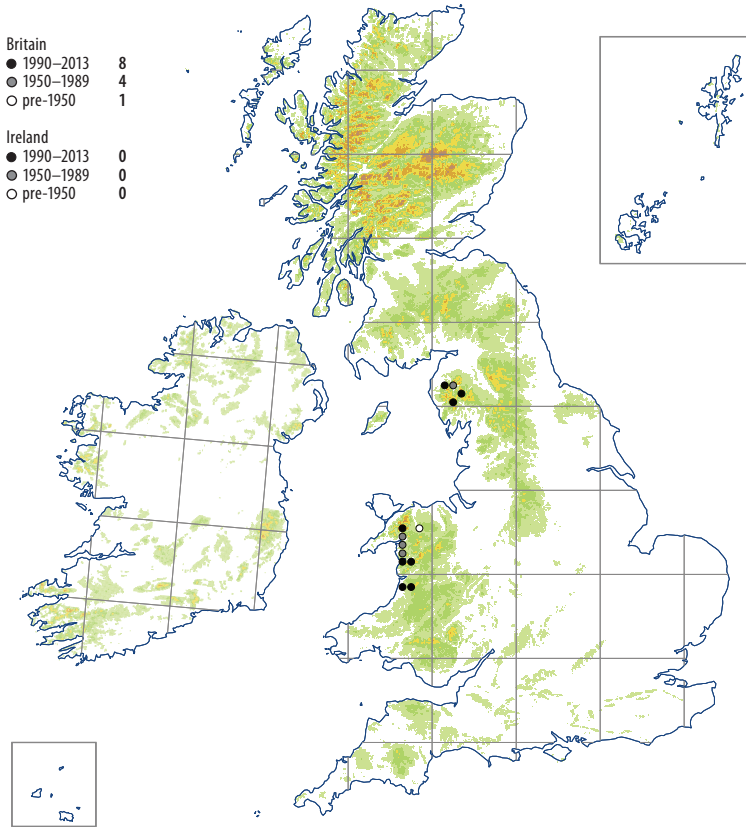


Grimmia arenaria



Flat patches of *Grimmia arenaria* are mostly found on hard acid rocks, particularly on lowland dry-stone slate walls and cap-stones of road bridges. They have also been noted on sandstone blocks in an upland quarry and on mountain block scree rich in heavy metals with *G. atrata* and *G. elongata*. This species often occurs in sheltered, shaded niches but may occasionally be in more exposed situations. Other associates noted include *G. donniana*, *Racomitrium lanuginosum* and *Oedipodium griffithianum*. Following its recent discovery in block scree in England, it has been suggested that this is its natural primary habitat in Britain (Hill, 2009b). Altitudinal range: 5–680 m.

Autoicous; capsules are common, mature in spring.

In the 1991–1994 Atlas *G. arenaria* was treated as a variety of *G. donniana*, as var. *curvula*. Opinions remain divided on the taxonomy; whilst some authorities regard it as a good species, others (most recently Maier, 2010) regard it as synonymous with *G. donniana*, with which it corresponds in costal architecture, leaf areolation and peristome characters. Loeske (1930) considered *G. arenaria* to be at the rank of form. Studies of European populations suggest that characters including seta length and curvature are influenced by growing conditions, and furthermore may vary in the same cushion.

Suboceanic Temperate. Because of taxonomic uncertainties its distribution is imprecisely known but it is apparently scattered from Scandinavia, France, Germany and Austria south to Spain, Andorra and Italy. Not known outside Europe.

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