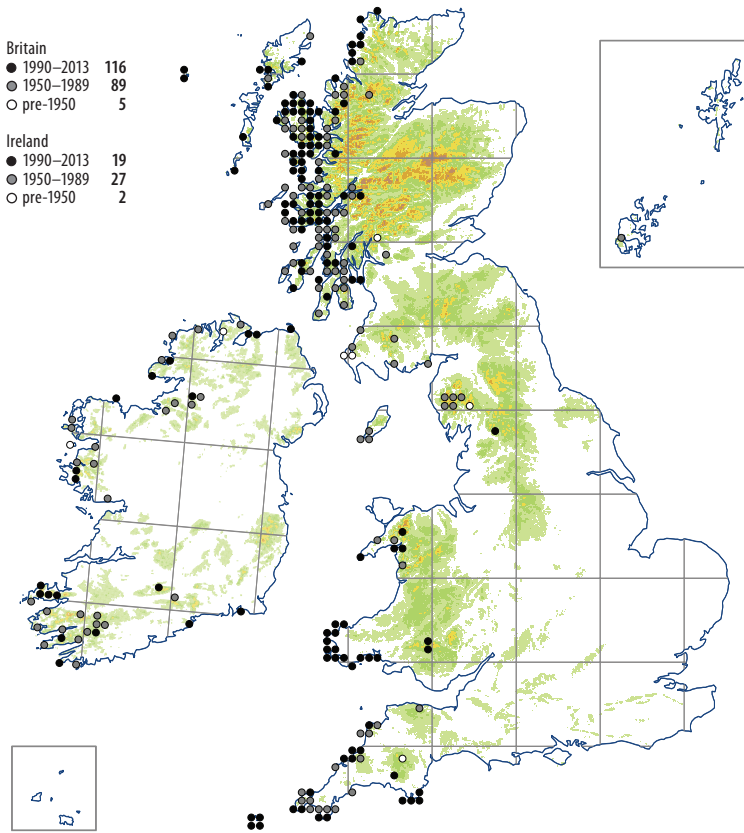


Frullania microphylla



On near vertical, seasonally moist, shaded mildly basic rocks by the sea, often growing with *Frullania teneriffae*. Observations in Pembrokeshire (Bosanquet, 2010) suggest that *F. microphylla* is usually found closer to the sea than *F. fragilifolia* when they share a site, even growing, for example, alongside *Schistidium maritimum* on boulders at the back of bays. In sheltered sea caves *F. microphylla* is found with *Lophocolea fragrans* and *Radula aquilegia*. More rarely, it grows on shaded rocks in woods, shaded vertical rock walls in low-lying wooded ravines, on blocks by lakes, and in treeless but shady, upland cliff faces and gullies. Three Welsh populations on crags in Snowdonia and the Brecon Beacons represent var. *deciduifolia*, but no other British or Irish montane populations have been referred to that variety. Altitudinal range: 0–300 m (var. *microphylla*); 450–610 m (var. *deciduifolia*).

Dioicous; female plants are frequent; capsules are fairly frequent (var. *microphylla*), January to September. Var. *deciduifolia* is characterised by its deciduous leaves, which are an additional dispersal mechanism.

Some confusion with *F. fragilifolia* is suggested by the paucity of recent inland records except for those assigned to var. *deciduifolia*. It is also likely that var. *deciduifolia* has been overlooked outside Wales.

Hyperoceanic Southern-temperate. Faeroes, France, Germany, Spain, Portugal, Azores, Madeira and the Canary Islands.

H.J.B. Birks, rev. S.D.S. Bosanquet

