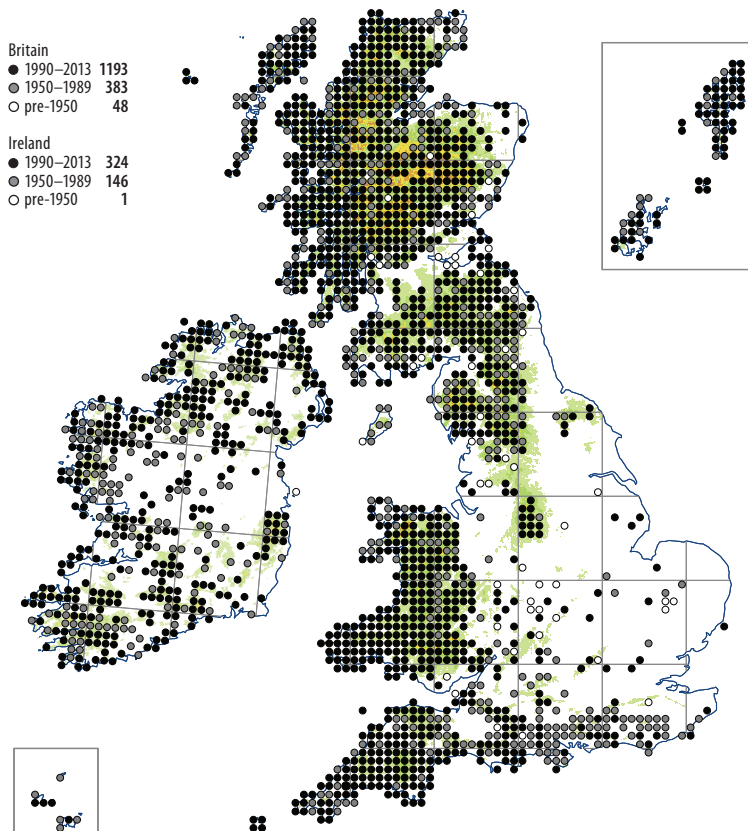


## Frullania tamarisci



Common and locally abundant in several habitats – mossy boulders in deciduous woods; shaded rocks by streams, in ravines, and by the sea; damp turf and grassland both in the lowlands and the uplands, often on basic or calcareous soils; dry, often exposed boulders in stable block litters; stone walls; trunks and lower branches of trees (particularly oak, hazel, ash, birch) and stems of heather and gorse; rotten logs; dwarf-shrub heaths; cliff faces and gullies; shaded peat and earthy banks; and short dune turf. It generally requires some shade or shelter, except in the extreme west of Scotland, and commonly favours mildly basic substrates outside the extreme west. It tends to replace *Frullania dilatata* as the principal epiphytic *Frullania* in upland areas. Altitudinal range: 0–790 m.

The wide habitat preferences of *F. tamarisci* make it difficult to pick out trends in distribution. There appears to be an overall decline in lowland England because of dereliction of calcareous grassland and losses of the ‘southern hepatic mat’ (Porley & Rose, 2001; Lansdown, 2014), but that is countered by a rather limited range expansion as an epiphyte, for example into parts of eastern England. In the Netherlands it has declined at inland sites (BLWG, 2013) and there is clear evidence for decline in northern Germany (Meinunger & Schröder, 2007).

Dioicous; fertile plants are frequent; capsules are occasional, found throughout the year.

Highly variable in appearance, with pendent red-brown plants and appressed dark red plants sometimes sharing a site and looking very different to each other. The best efforts of a number of bryologists have failed to match this morphological variation with a robust taxonomy.

Suboceanic Boreo-temperate. Found in most of Europe including Iceland and the Faeroes. Macaronesia; eastern N America. *F. tamarisci* s.l. is holarctic but includes at least eight cryptic or semi-cryptic taxa (Heinrichs *et al.*, 2010).

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