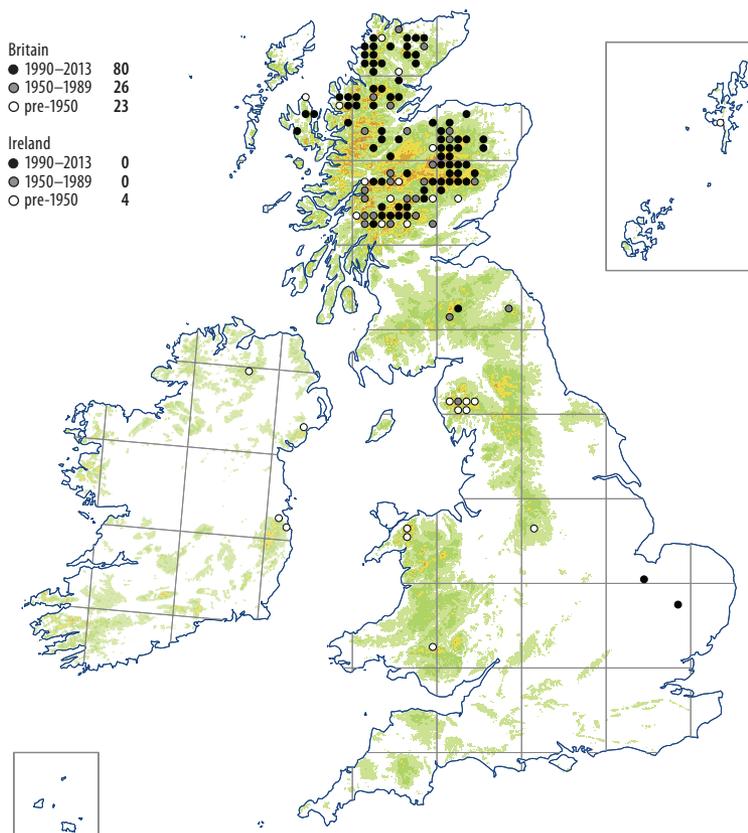


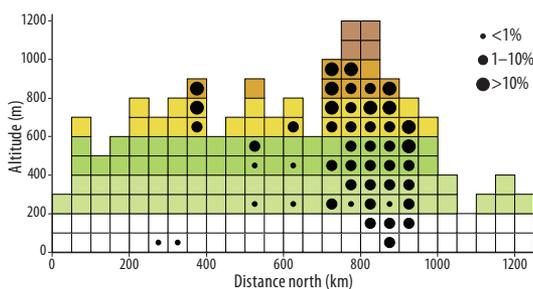
Pterigynandrum filiforme



In the mountains this is a plant of open, base-rich rocks in dry places on rocks and crags, often in exposed sites where competition is reduced. Here it grows with common species like *Andreaea rupestris*, *Hypnum cupressiforme*, *Isoetecium myosuroides*, *Racomitrium heterostichum* and *R. lanuginosum* but also with more distinguished company such as *Racomitrium himalayicum* and *Schistidium trichodon*. At lower altitudes in the hills, it occurs in the community of bryophytes on rocks on the margin of lochs with *Grimmia funalis*, *G. hartmanii*, *Orthotrichum rupestre*, *Racomitrium aciculare*, *Sciuro-hypnum plumosum* and, rarely, *Bryum muehlenbeckii*, *Grimmia anomala* and *Pseudoleskea patens*. In continental Europe it is a common epiphyte, and it occurs in this habitat in the north-east of Scotland, on hazel, ash and aspen, sometimes in considerable abundance. In eastern England it has recently been recorded from an alien

species of maple (Fisk, 2005) and on apple trees in orchards. Altitudinal range: 0–1040 m.

The recent records from East Anglia are likely to have originated from wind-borne spores from continental Europe, facilitated by reductions in SO₂ pollution. With these exceptions, *Pterigynandrum filiforme* has not been recorded for over 50 years in England and for much longer in Wales and Ireland. The reasons for this decline are unclear, especially in the three sites in N Wales, which were on rocks in the cwms of central Snowdonia. The colony in S Wales was epiphytic in an ordinary valley near Brecon and may have been a casual appearance. Air pollution may have been a factor in the Lake District, where some of the records were also from trees, but the lack of modern records there may be due to under-recording in recent years.



Dioicous; capsules are rare. Gemmae occur on the stems, and deciduous branchlets are sometime present, especially on epiphytic plants.

Circumpolar Boreal-montane. Widespread in Europe ranging from Iceland, Svalbard and Arctic Russia south to the mountains of the Mediterranean region, where it is frequent; Urals, Caucasus, Madeira, Canary Islands, N Africa, Turkey, Cyprus, C Asia, Kashmir, India, and across N Asia to Japan. N America south to Mexico, Costa Rica.

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