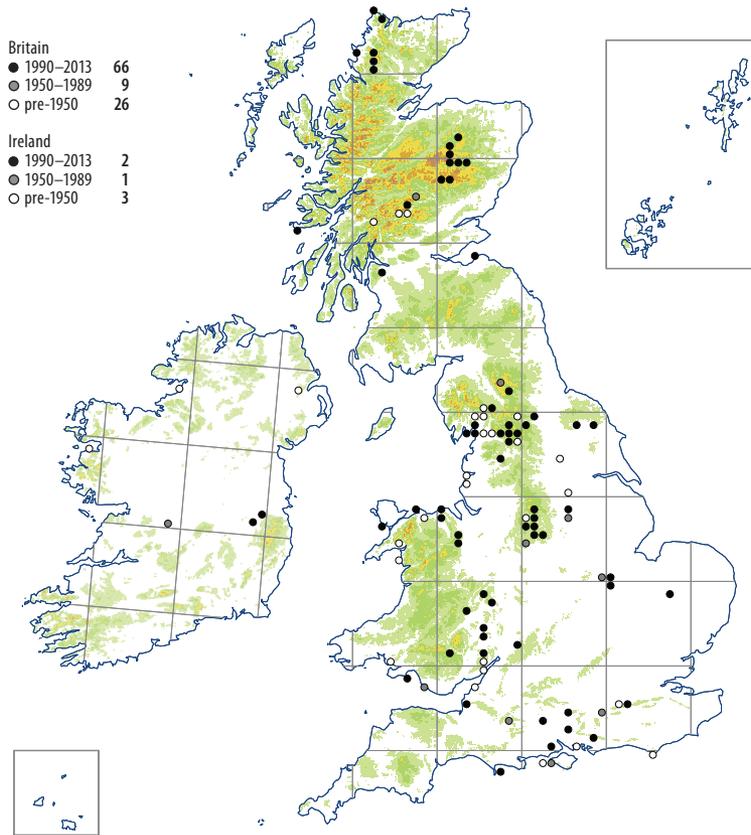


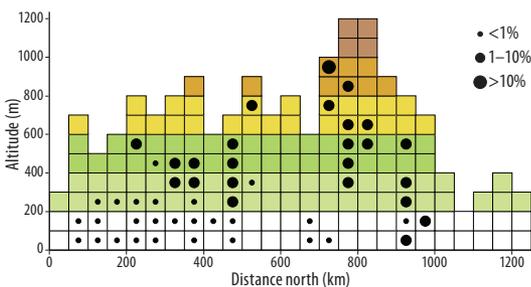
Ditrichum flexicaule



Typically found on thin soil over chalk and limestone and other base-rich rocks, including basalt, growing on boulders, scree, derelict walls and rubble, associated with a wide range of other calcicolous bryophytes such as *Ctenidium molluscum*, *Hypnum cupressiforme* var. *lacunosum* and *Tortella tortuosa*. In Scotland it is typical of the upper exposed surface of Cambrian and Dalradian Limestone boulders and, where it may be locally abundant. It is also known from calcareous sand in coastal dune systems, and in thin turf in calcareous grassland and long-disused pits and quarries. Its habitats are similar to those of *Ditrichum gracile*, but it tends to be restricted to better-drained sites. Overall its distribution neatly matches that of upland limestones, with outliers on the chalk and some dune systems Altitudinal range: 5–1215 m.

Diocious; capsules are very rare, known only from old reports which may refer either to *D. gracile* or *D. flexicaule*. Attenuate innovations are often produced and may serve as a means of vegetative propagation.

It was not consistently separated from *D. gracile* until Frisvoll (1985) recognised the presence of the latter in Europe, although many old records of var. *densum* (Bruch & Schimp.) Braithw. refer to *D. flexicaule* s.s. Smith (1993) revised the distribution of the two species in Britain and Ireland, and only confirmed records are mapped. However the separation of the two species can be difficult and there is a need for further investigation into their distinctness, using molecular techniques. *D. flexicaule* s.s. is much the less common of the two taxa in Britain and Ireland, but its known distribution remains incomplete and there may be some inconsistencies in recording.



Circumpolar Wide-temperate. Europe north to Svalbard and south to the mountains of the Mediterranean region. Madeira, N Africa. Near East, Iran. Widespread in the Northern Hemisphere, extending to the high Arctic, but many records refer to *D. flexicaule* s.l. and the precise distribution is uncertain.

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