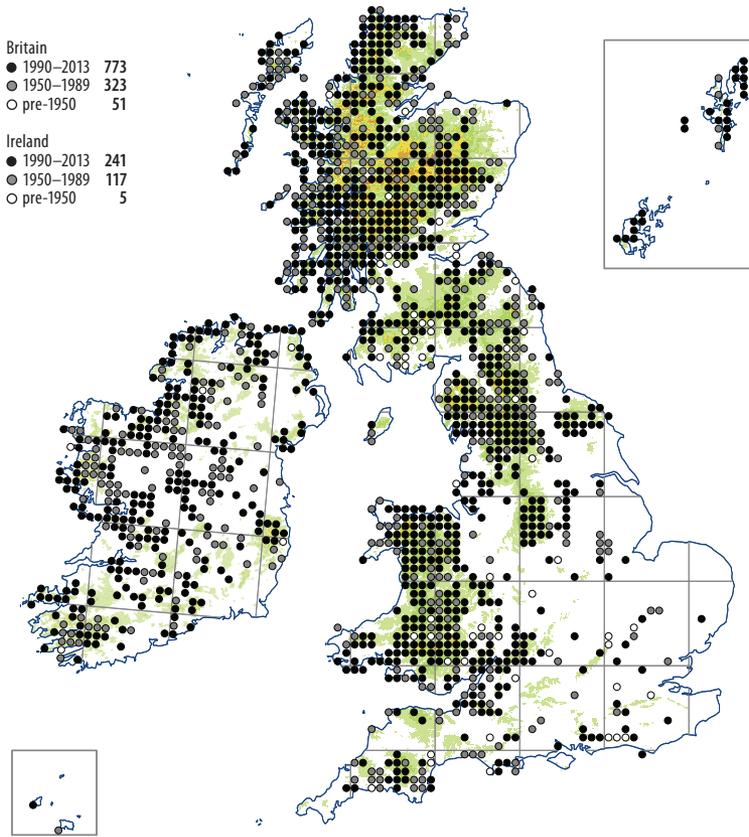


Tortella tortuosa



A locally abundant and conspicuous species, often forming mounds among sheltered base-rich rocks. Although most plentiful on upland limestone, for example on Carboniferous Limestone in the Pennines, it is not a strong calcicole and may also occur on siliceous and other non-calcareous rocks with only slight base enrichment. Habitats include wooded cliffs and boulders, rock ledges and crevices in ravines and gullies, exposed crags and cliffs, limestone pavements, recesses in scree and block litter on mountain and moorland slopes, and old sheltered dry-stone walls. Exceptionally it may become established on tree trunks in limestone valleys. It has many associates on calcareous rocks, including *Ctenidium molluscum*, *Fissidens dubius*, *Homalothecium sericeum*, *Neckera complanata* and in moister niches *Scapania aspera*. In western Scotland it grows in machair, and in southern and eastern England it is

a rare component of grassland on moist, often north-facing banks on chalk and limestone hills. It colonises a number of man-made habitats, such as mortared walls, concrete wall-cappings and other concrete structures, and even roof tiles. It is rare and sparse on these substrates in the drier regions of the south and east, but more frequent in northern and western areas. Altitudinal range: 0–1080 m.

This distinctive species is well recorded. There have been few significant losses except on grassland sites in S and E England.

Dioicous; capsules are rare, mature in summer.

Some older records doubtless include *Tortella bambergi*, whose taxonomy has only recently been clarified (Bosanquet, 2006a). However *T. tortuosa* is often present at the same localities as *T. bambergi* and there are probably very few errors on the map.

Circumpolar Boreo-temperate. Almost throughout Europe, including Iceland and Svalbard in the north, and the Mediterranean hills and mountains in the south. Macaronesia (Madeira), N Africa. Cyprus, Turkey and the Near East. Widespread in northern and temperate zones of Asia and America. S America (Peru).

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