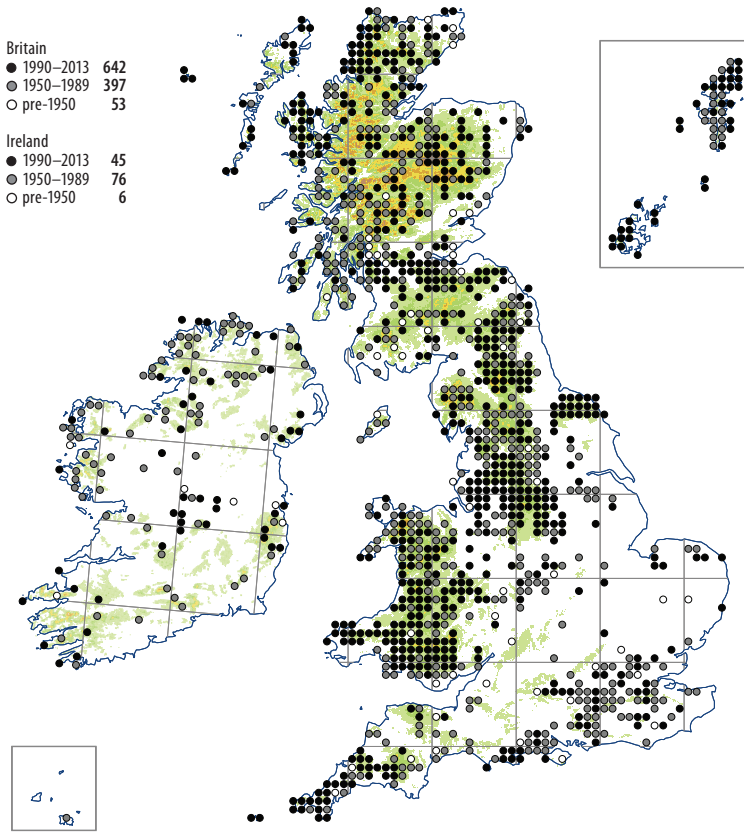


Gymnocolea inflata



On a wide range of substrates, including peat, rock, sand and clay, always where strongly acid and generally where well illuminated, often where few other plants except *Calluna*, *Campylopus* spp. and *Pohlia nutans* can survive. Its most characteristic habitat is wet heath, where it is sometimes abundant on thin peat at the edge of temporary pools, with *Sphagnum* species such as *S. compactum* and *S. tenellum* as well as the associates mentioned above; but it also grows on eroding blanket peat, rocky banks and intermittently irrigated rocks. Relatively shaded colonies on rock outcrops in open oak woodland tend to be composed of atypically small plants. Very tolerant of pollution, it often occurs near large cities and on toxic waste from copper mining and other extractive industries. Altitudinal range: 0–1125 m.

A decline in *Gymnocolea* has paralleled that of other species of acid moors and is much greater at low altitudes and in polluted areas than in upland and unpolluted regions. This decline may reflect habitat loss (as heaths have become overgrown, ploughed, afforested or built over), reductions in acid rain or both. It may have declined in the Netherlands, though this requires confirmation (BLWG, 2013) and it has declined greatly because of habitat loss in NW Germany (Meinunger & Schröder, 2007).

Dioicous. Female plants are common and dispersed by caducous perianths. Male plants are occasional; they lack a specialised means of dispersal. Sporophytes are rather rare, January to June and October.

Circumpolar Boreo-temperate. Throughout N and C Europe; widespread elsewhere, including Macaronesia, Russia, Japan, and N America south to Georgia.

M.O. Hill, rev. S.D.S. Bosanquet

