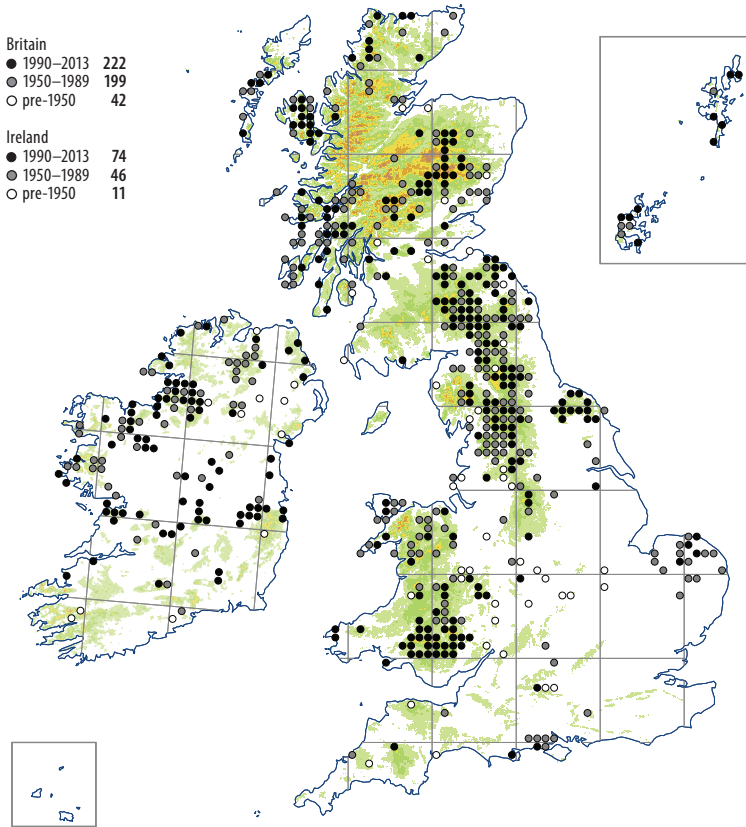


Philonotis calcarea



A large, handsome plant when well grown, found in open or lightly shaded sites kept continually moist by a flow of calcareous water. Habitats include calcareous springs and flushes, tufa, marshes, machair and dune slacks, wet cliffs (especially limestone), dripping rocks in ravines and tufa. More unusual habitats include lock pounds, gates on canals and railway ballast (with *Campylopus atrovirens* and *Hymenostylium recurvirostrum*). It is a common and characteristic component of highly calcareous lowland fens in Ireland and N Wales, usually growing with *Bryum pseudotriquetrum*, *Campylium stellatum*, *Cratoneuron filicinum*, *Palustriella* spp. and *Scorpidium* spp. Typical associates in calcareous upland flushes are *Carex panicea*, *C. pulicaris*, *Pellia endiviifolia*, *Campylium stellatum*, *Ctenidium molluscum*, *Fissidens adianthoides*, *Palustriella commutata* and *Scorpidium cossonii*. Altitudinal range: 0–750 m.

Like *Philonotis fontana*, it has been eliminated by drainage and eutrophication from many parts of SE and C England.

Dioicous; capsules are rare, mature in summer. There is normally no specialised method of vegetative dispersal, but deciduous branchlets have been found on a Warwickshire plant, which continued to produce them when subsequently cultivated in a greenhouse (Field, 1988).

European Boreo-temperate. Widespread in Europe north to the Faeroes, N Scandinavia and Arctic Russia, east to the Urals. Macaronesia, N Africa. SW Asia, Georgia to Kyrgyzstan and Kazakhstan, S Siberia.

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