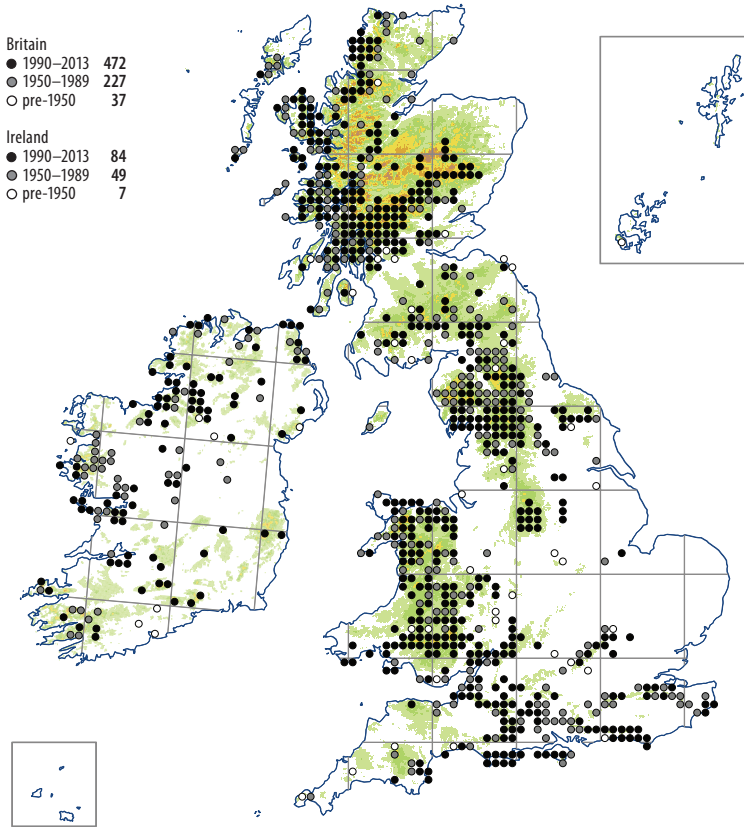


Neckera crisa



One of the most reliable indicators of base-rich habitats. It grows on shaded or sheltered, dry or periodically irrigated rock faces, sometimes in exposed places but then typically in a small falcate-leaved form. Habitats include the sides of grikes in limestone pavement, shaded walls, boulders and cliffs, thin, species-rich calcareous turf, lowland *Dryas* heath in northern Scotland, and moist, tall-herb communities on montane cliff ledges. It is particularly frequent on limestone, but also grows over chalk, calcareous schists, shales, sandstones and basic igneous rocks. Although shade-tolerant it is often replaced by *Thamnobryum alopecurum* on deeply shaded rocks. As an epiphyte, it occurs on the trunks and bases of trees, almost exclusively in habitats where it occurs nearby on rocks or the ground. Some of the most characteristic of its numerous associates include *Marchesinia mackaii*, *Scapania aspera*,

Tenidium molluscum, *Fissidens dubius*, *Homalothecium sericeum*, *Neckera complanata*, *Tortella tortuosa* and, in the north and west, *Frullania tamarisci*, *Breutelia chryscoma*, *Hylocomium splendens*, *Loeskeobryum brevirostre* and *Rhytidiadelphus triquetrus*. Altitudinal range: 0–850 m.

Diocious; capsules are usually absent in southern England, occasional in the north and west, mature in winter and spring.

Loss and neglect of chalk turf has led to the decline of *N. crisa* in SE England, where it is often a member of the 'southern hepatic mat' community (Porley & Rose, 2001).

European Temperate. W and C Europe north to Iceland and N Norway, the Baltic States and adjacent parts of Russia, east to Crimea and Caucasus, becoming restricted to mountains in the Mediterranean region. Macaronesia (Canary Islands, Madeira). Turkey, Armenia, Azerbaijan, Iran.

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