

Threatened bryophytes

Octodiceras fontanum

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Status

This is a Nationally Scarce species without an IUCN designation. Notwithstanding its status, it has been included within the Threatened Bryophyte Database project (Hodgetts, 2003).

Description

Octodiceras fontanum ('Fountain Pocket Moss') has complanate shoots bearing distichous leaves with a similar structure to those of *Fissidens* species. In this species, however, the sheathing lamina is only a quarter to a third the length of the leaf as a whole, rather than around half the length of the leaf as in *Fissidens*. The plant is aquatic and grows in submerged patches of a dull green colour, the individual shoots being branched, flaccid and up to 3 cm long (see Figure 1). The leaves are distant, unbordered



Figure 1. *Octodiceras fontanum*, Staffordshire, 2004. Photo: Martin Godfrey.

and narrow linear-lanceolate with a nerve that disappears below the apex. When dry, the shoot shrivels somewhat and becomes very brittle. *O. fontanum* is autoicous, and capsules are unknown in Britain; as they are immersed and reported as falling easily it is probably worth looking for them.

Ecology

O. fontanum is aquatic and is described as growing on a variety of substrates, including wood, stones, concrete and other man-made structures. It has even been recorded as an epiphyte on sponges (Sowter, 1972). It grows in both rivers and canals and can tolerate a little pollution. Although a freshwater plant, in America it is said to grow in coastal estuaries (Pursell, 2001). In the experience of the author the plant grows sporadically, but sometimes abundantly, on man-made structures such as bridge footings and below canal locks just beneath the water surface and in conditions that introduce a little oxygen and carbon dioxide into the water (see Figure 2).

Current status and distribution

The species is listed as European Temperate by Hill & Preston (1998) and as Sub-Mediterranean by Duell (1984). It is distributed quite widely in Europe from Portugal, Spain and the Balearics to Southern Sweden. It also occurs in Madeira, North America, Mexico, Chile, Australia and New Zealand.



Figure 2. Typical *Octodicerias fontanum* habitat in the Midlands: Staffordshire and Worcestershire Canal, Staffordshire. Photo: Martin Godfrey.

It has a scattered distribution in the British Isles, with few records from Wales or Ireland and none from Scotland (see Figure 3), perhaps supporting the Sub-Mediterranean categorisation of Duell. It seems to have become extinct in some of its more southern stations, perhaps due to increased pollution, but seems to be holding its own in the canals of the Midlands.

Conservation

It is suspected that the main threats to this moss are increasing pollution and eutrophication. Under these circumstances it seems to be

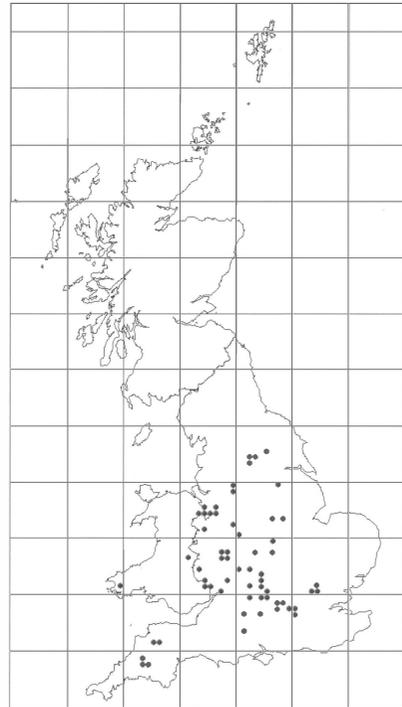


Figure 3. Distribution of *Octodicerias fontanum* in Britain.

successfully out-competed by *Cladophora* and other filamentous algae (J.W. Eaton, pers. comm.).

References

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