

Scarce brown sedge

(Ironoquia dubia)



The Scarce brown sedge is a freshwater species and is one of Britain's rarest caddisflies. This caddisfly has a strong association with leaf litter, in running and still waters with larvae building their cases from the surrounding leaf litter. The case is long, narrow and strongly curved. The larvae have a conspicuous pale middle stripe and numerous gill filaments. The adults have anterior wing 10-12mm in length.

Due to its rarity and decline in numbers the insect has been made a Priority Species on the UK Biodiversity Action Plan (BAP).

Life cycle

This caddisfly has a short flight period from the middle of September to the first week in October. During which, adults do not move away from their breeding site. They lay eggs in damp dead leaves at the bottom of the stream which will have dried out over the summer. Larvae leave the water in spring before the stream dries out over the summer and pass the summer in damp leaves at the margins. They actually pupate amongst the damp leaves in September and emerge as adults in Autumn. This behavior is unique to this caddis amongst UK species.

Distribution map

This caddisfly has been recorded in Suffolk, Windsor Forest and in south east Berkshire and in an adjoining part of north east Hampshire. There are no recent records of this species and therefore no known current sites.



Fig. 1 Distribution of confirmed records in UK (adapted from NBN Gateway)

Habitat

In England, this species breeds in streams that dry up or considerably diminish over summer. They live amongst leaf litter so riparian deciduous trees are important to this species as well as deep slow pools where this matter can collect.

Threats and causes of decline

There are a number of factors impacting the habitat that may be contributing to the decline of this insect; pollution, unsympathetic dredging, ditching and engineering works and the removal of marginal vegetation and trees.

Habitat management

This species relies upon good water quality therefore the most important management is the maintenance and improvement of water quality. Additional management considerations should include:

- **Maintain marginal and riparian vegetation and trees:** any work that is likely to damage bankside vegetation, should be carried out only on one bank or one side of the river and preferably on only short stretches;
- **Maintain undisturbed channel and marginal dead leaves and debris:** any work that is likely to damage channel and marginal dead leaves and debris should be done in wet phases to avoid disturbing larvae, pupae and egg-laying. Work should be carried out only on one bank or one side of the river and preferably on only short stretches;
- **If maintenance and engineering works are necessary, including dredging:** plan them sympathetically to avoid habitat loss (especially side channels) and excessive riverbed disturbance, any habitat loss should be mitigated by habitat enhancements and creation;

Environmental stewardship options

There are a number of options relevant to the protection of this species including:

HLS options

HB14 Management of ditches of very high environmental value

ELS options

EJ9 12 m buffer strips for watercourses on cultivated land

EJ11 Maintenance of watercourse fencing

References

Wallace, I (2011) Species dossier: *Ironoquia dubia*, Scarce brown sedge. Buglife. Available at www.buglife.org.uk



Buglife – The Invertebrate Conservation Trust
First Floor, 90 Bridge Street, Peterborough, PE1 1DY

Telephone: 01733201210 Email: info@buglife.org.uk

www.buglife.org.uk



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