



BRIGIT

Species Information Sheet

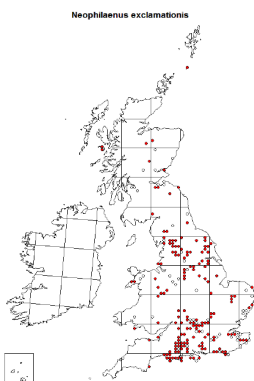
Neophilaenus exclamationis



Distribution and Identification



Adult *N. exclamationis*



Distribution of *N. exclamationis* as at May 2019

Neophilaenus exclamationis is widespread in Britain and Ireland, but is much less common than *N. lineatus*.

Adults are typically 4 – 5mm long, females being somewhat larger than males. As with all froghoppers, they have two stout spines on the outer edge of the hind tibiae, as well as several smaller spines at the tip. Nymphs are typically pale yellow in colour with distinctive dark patches on the wing buds.

Neophilaenus species can be distinguished as adults from *Philaenus spumarius* by the more parallel outer edges of the wings when viewed from above (as opposed to the more convex outline of *P. spumarius*) and their overall pattern of markings. They are much smaller than *Aphrophora* species.

N. exclamationis is easily recognised by the markings along the outer edges of the wings, consisting of a pale line along the basal two-thirds, and a distinctive pale patch towards the tip; together, these resemble an exclamation mark (hence the species' name). The rest of the wing surface is primarily a dull chestnut- to dark-brown, often with a dark streak towards the apex of the inner wing margins.



Typical froghopper (*N. lineatus*) hind tibia showing two stout spines on the outer edge and several smaller spines at the tip



Adult *N. exclamationis* showing the distinctive pale patch towards the tip of the wing

Habitat, Ecology and Lifecycle

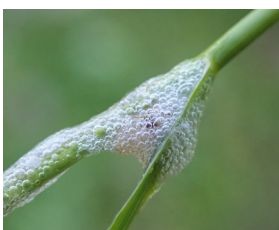
Neophilaenus exclamationis is an open grassland species, but is confined to two sorts of habitat: calcareous grasslands (both lowland and upland) and upland acid grasslands and bogs. It feeds on grasses and possibly sedges and rushes.

Females lay eggs singly or in groups inside the plant tissue in the autumn. On emergence the following spring, nymphs begin producing the characteristic spittle 'nests' which provide protection against predators and desiccation. Spittle can be seen from April to late June. The nymph moults five times within the spittle before emerging as a free-living adult. Adults can be found between June and October.

As with all froghoppers, *N. exclamationis* feeds on the liquid contents of the xylem vessels of its host plant. As such, it is a potential vector of the bacterium *Xylella fastidiosa* which has caused the death of many olive trees in southern Europe, although this disease has not been detected in the UK.



Adult *N. exclamationis*



Neophilaenus sp. spittle on grass



Neophilaenus sp. nymph

BRIGIT is a collaborative research and awareness-raising project aiming to understand and prevent the introduction of *Xylella fastidiosa* into the UK. <https://www.jic.ac.uk/brigit/>

For further information
Website: <https://www.spittlebugsurvey.co.uk/>
Contact: info@spittlebugsurvey.co.uk
Text: C. Harkin; A.J.A. Stewart
Photos: C. Harkin; T. Bantock; G. Kunz
Map: A.J.A. Stewart