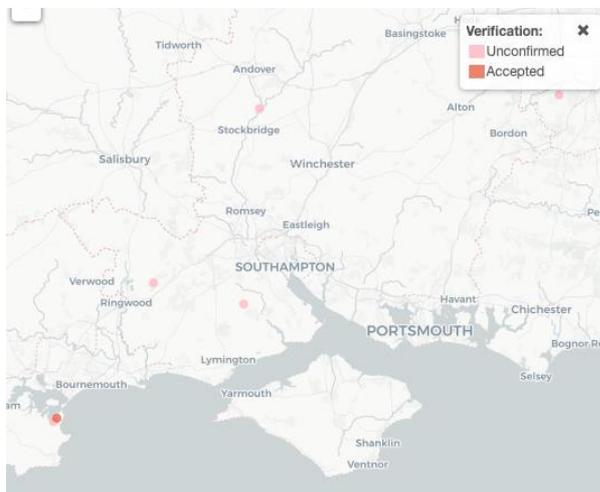


Broken-banded Wasp Hoverfly

Chrysotoxum octomaculatum



The Broken-banded Wasp Hoverfly is one of eight British species of hoverflies in the genus *Chrysotoxum*, which are large, attractive social-wasp mimics with long antennae. *Chrysotoxum octomaculatum* is one of five boldly patterned species that are difficult to differentiate. All have a bulbous, mainly yellow abdomen (the *chryso* part of the genus name means 'golden') with black crossbands, a black thorax with broad yellow thoracic stripes and a yellow scutellum with a black central spot. This species is very similar to *C. verralli*, from which it was only 'split' in 1940. The abdomen pattern of *C. octomaculatum* differs slightly from *C. verralli*, in that the black stripe on the front of at least one of tergites 3–5 is interrupted with yellow before the lateral margin (hence 'Broken-banded'). Females also have short yellow hairs on most of the yellow part of the scutellum. The third antennal segment is shorter than the combined length of segments 1 and 2 (vs. roughly the same length in *C. verralli*). Close examination is essential and independent verification is recommended to confirm the identification.



Broken-banded Wasp Hoverfly distribution across Britain and Ireland.

The data used to create this map has been provided under OGB license from the National Biodiversity Network (NBN) and accessed from the Society's online database. Map data © [OpenStreetMap](#)

Lifecycle

Very little is known about this elusive hoverfly. Adults have been recorded from May to September, with peaks in June and August. Females have been watched flying low over bare ground and short vegetation and males hovering 3–5 metres up in trees and bushes, settling above 2 metres. In Britain, females have been observed visiting the flowers of buttercups *Ranunculus* sp., *Rhododendron ponticum* and Broom *Cytisus scoparius* and resting on Lesser Pond-sedge *Carex acutiformis*. Across its whole range, other plants visited include heathers *Calluna vulgaris* and *Erica* sp. Spurge *Euphorbia* sp., Bedstraws *Galium* sp., Cat's-ears *Hypochaeris* sp., Rose *Rosa rugosa* and white umbellifers. On hot days, adults have been seen visiting forest stream margins to drink. Breeding information and larvae remain unknown, but the genus *Chrysotoxum* is thought to be associated with ants or ant-tended root aphids, and the

niche of *C. octomaculatum* is likely to be similar.

Habitat

In Britain, the Broken-banded Wasp Hoverfly appears to mainly inhabit heathland, perhaps particularly edge habitats or damper areas. Two recent Dorset records were in heathland dominated by Heather, Bell Heather *Erica cinerea*, gorse *Ulex* sp. and a little bramble *Rutus fruticosus*, with scattered Birch *Betula* sp. and Sessile Oak *Quercus petraea* trees. One observation was within 11 metres of two wood ant-hills and within 130 metres of a small pond. One Surrey encounter was in a dampish hollow with Lesser Pond-sedge that was scrubbing over. Outside GB, it is known from other habitats, including dry, open scrub woodland, dune scrub and open, mature woodland (both deciduous and coniferous).



(left) Habitat at Crichton's Heath, Arne, Dorset – location of one 2010 record; (right) close up of the abdomen of *octomaculatum*, showing that the black bands are interrupted before the lateral margin (key for identification).

Distribution

This rare, declining hoverfly is apparently now restricted to two small areas in southern England. Recorded from just two hectads this century, in east Dorset and Surrey, there is no record from the New Forest (Hampshire) since the 1960s. The most recent records come from three heaths in Purbeck (Dorset) in August 2010 and June 2015.

GB status and rarity: Endangered.

Protection under the law

The Broken-banded Wasp Hoverfly is included in Section 41 (England) of the National Environment and Rural Communities Act (2006) as a species “of principal importance for the purpose of conserving biodiversity”.

Survey method

Surveying adult hoverflies on heathland can be tricky, particularly where nectaring sites other than heathers are few. Good locations (as at both 2010 sites) often line bare-ground footpaths adjacent to a raised heathery bank that includes flowering plants. On warm, sunny days during June and August, scan for hoverflies flying low above vegetation or alighting on flowers, then use a net to confirm their identity. Upon finding the species, it would be useful to take a basic physical description, including details of vegetation, bare ground and the proximity of anthills and water bodies.

Reasons for decline

Uncertainty around this hoverfly's status are exacerbated by its split from *C. verralli* in 1940; *C. octomaculatum* may always have been a very localised species. Accordingly, explaining its disappearance (or rarity) is speculative at best. The drying-out of formerly damp heathland has been suggested, as has scrub encroachment and differences in management causing habitat changes.

Habitat management

With this hoverfly's ecological requirements little understood, it is hard to stipulate management techniques. Suggestions have included: maintaining a pattern of traditional heath management including rotational treatment of heather; removing invasive scrub while retaining sufficient scrub to maintain micro-climates; and possibly maintaining or creating heathland-edge vegetation.

Sources and further information

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