## **Hoverfly Report 2023**

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Two hoverfly species showed a considerable increase in frequency in 2023 compared to previous years.

The first species to have increased was *Volucella zonaria*. This large and spectacular hoverfly is a hornet mimic, and predator and scavenger in the nests of social wasps, including the European Hornet. It was known in the UK from only two specimens and regarded as a rare vagrant until about 1940. In the 1940s it began to become established in London. By 2000 it was quite frequent in the London area, especially in the outer suburbs, and records to the south of London, particularly Kent, suggested that this species was spreading. By 2011 the species showed a spread northwards to the Humber, with one record just north of the Humber. Since then it has seen a further and rapid range expansion northwards. In 2023 it was a not infrequent visitor in the Scarborough area particularly to urban areas such as Scarborough and Filey, where it was recorded feeding on nectar-rich garden plants such as Buddleia.

Care needs to be taken in identification of *V. zonaria* as another hornet mimic, *V. inanis*, also appears to be spreading northwards in a similar fashion. Although not yet as plentiful in the Scarborough area as *V. zonaria*, *V. inanis* has been recorded. Most individuals can easily be identified in the field, but a few specimens are somewhat trickier, showing some intermediate characters between the two species. In this case it is important to check the colour of the second sternite, a segment on the underside of the abdomen near to the thorax – black in *V. zonaria* and pale yellow/gold in *V. inanis*. This is often visible on a photograph of the hoverfly taken from the side or below.



Volucella zonaria on Creeping Thistle at Filey Dams 28 July 2023 Photo Joan Childs

The second species to experience a range expansion was *Rhingia rostrata*. *R.rostrata* is closely related to the much commoner *R. campestris*. These two species have a long and rather un-hoverfly-like rostrum enclosing the proboscis which allows them to probe for nectar and pollen in deeper flowers which other hoverflies cannot reach. In other words, they have a long, pointed 'snout'. Both species have an orange-red abdomen but *R. campestris* is the darker of the two species. This species has a dark band around the outer edge of the abdomen (where the upper tergites join the lower

sternites). *R. rostrata*, on the other hand, has a vivid, bright orange abdomen, almost glowing like a belisha beacon and lacks the dark edge around the margin of the abdomen. Both species of *Rhingia* favour woodland rides and glades and can be seen flying alongside each other. Both have two flight periods, one in May/June and a second, larger flight period in the autumn. In 1987 *R. rostrata* was considered a rare species and listed as Vulnerable. In 2000, it was mostly confined to South Wales and South East England. By 2011 it had become much more frequent in Southern England and the Welsh Borders, and underwent a rapid expansion into the East Midlands but still with no records north of the Humber. In 2023, good numbers of *R. rostrata* were found flying with *R. campestris* in a number of forests in the Scarborough area such as Dalby Forest and Harwood Dale Forest. The larvae of *Rhingia* are associated with dung. *R. rostrata* larvae seem to primarily develop in deer or badger dung with eggs being laid on foliage close by. The increase may be linked to climate change and an increase in the mammal species in whose dung the larvae develop.



Rhingia rostrata, Sand Dale, Dalby Forest 21 August 2023 Photo Joan Childs



Rhingia campestris, Sand Dale, Dalby Forest, for comparison May 2018 Photo Joan Childs

Dalby Forest is one of the top sites for hoverflies in the area, including *Sericomyia superbiens*, a North and Western species for which our area is on the edge of range, other than an outlier population in East Anglia.



Sericomyia superbiens on Devil's Bit Scabious, Sand Dale, Dalby Forest 21 August 2023 Photo Joan Childs

Another member of this genus, *S. silentis* is particularly frequent in Dalby Forest, especially Sand Dale and Deepdale.



Sericomyia silentis on Grass of Parnassus, Sand Dale, Dalby Forest 21 August 2023 Photo Joan Childs

Resident populations of hoverflies were boosted by an influx from Europe later in the summer. Vast numbers of *Episyrphus balteatus* could be found, particularly on the flowers of Compositae and Umbelliferae, and were particularly numerous in coastal locations. Other migratory species such as *Scaeva pyrastri* were also found in inflated numbers.



*Episyrphus balteatus* on yellow Compositae, Wykeham Lakes 18 July 2023 Photo Joan Childs



*Scaeva pyrastri* on Umbelliferae, Broadhead Farm 13 July 2023 Photo Joan Childs

*Portevinia maculata* could reliably be found in any sizeable stand of Wild Garlic *Allium ursinum*, where the larvae develop in the bulbs below ground.



Portevinia maculata, Forge Valley 14 May 2023 Photo Joan Childs