

## Please tell us if you find one of the bugs on our survey

Records should contain information about: **What** you saw; **When** you saw it; **Where** you saw it (grid reference and habitat); and **Who** you are. You can record on-line at: <http://www.nbis.org.uk/Hymenoptera2012Survey>. Or you can send us an email at [nbis@norfolk.gov.uk](mailto:nbis@norfolk.gov.uk) or get in touch by phone 01603 224458 or post at NBIS, Room 301, County Hall, Norwich, NR1 2SG.

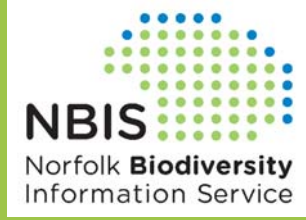
Species	Date	Place name	Grid reference	Habitat

If possible, please send in a picture with your records.

Your details (name and contact details eg. email address)

Norfolk Biodiversity Information Service (NBIS) operates a not-for-profit service, recording, managing and interpreting wildlife information for the conservation and enhancement of biodiversity in Norfolk.

Read more about our work at [www.nbis.org.uk](http://www.nbis.org.uk) or sign up for our electronic newsletter at [nbis@norfolk.gov.uk](mailto:nbis@norfolk.gov.uk)



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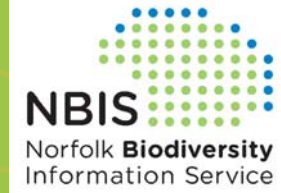
### Images

**Top:** Wool carder bee (*Anthidium manicatum*). Photo credit: Flickr user [dnnya17](https://www.flickr.com/photos/dnnya17/). Creative Commons licence, some rights reserved. <http://lic.kr/p/9RjoPs>  
**Middle:** European hornet (*Vespa crabro*). Photo credit: Flickr user [crunchy\\_with\\_ketchup](https://www.flickr.com/photos/crunchy_with_ketchup/). Creative Commons licence, some rights reserved. <http://lic.kr/p/BLmujC>  
**Bottom:** Hoverfly (*Leucozona lucorum*). Photo credit: Nick Owens.

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NBIS carder bee, hornet and hoverfly survey - can you help spot them?



## NBIS carder bee, hoverfly and hornet survey

Two of the insects in our NBIS survey, the European hornet, *Vespa crabro* and the wool carder bee, *Anthidium manicatum*, belong to the hymenoptera, a large insect order which also includes wasps, ants, bees, ichneumons and saw-flies. Our third survey species, the hoverfly *Leucozona lucorum*, is a member of the diptera (flies).

They all have a fascinating biology and are probably quite widespread in Norfolk although we don't know for sure, as we don't have many records on the NBIS database.

We do hope that you'll take time to read through this leaflet which gives more background about these species and let us know if you spot any of them. They all play an important role in the natural fabric of our countryside and your records will contribute to our overall knowledge of Norfolk's biodiversity so that we can help safeguard and enhance it.

### Did you know?

- The insects described in this leaflet are not naturally aggressive;
- They are beneficial to gardeners, assisting with pollination;
- There is a national society dedicated to studying and recording bees, wasps and ants (aculeate hymenoptera) in Britain and Ireland—[www.bwars.com](http://www.bwars.com)
- Find out more about diptera at [www.dipteristsforum.org.uk/](http://www.dipteristsforum.org.uk/)

Photo credit: R. Chandler



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## European hornet (*Vespa crabro*)

**Description:** A spectacular large yellow and brown social wasp up to 35mm in length (queens can be up to 50mm long). Although often viewed with trepidation, hornets are rarely aggressive and will sting only if provoked. Adult hornets feed on sugary foods such as nectar and fruits. They feed their larvae on paralysed insects.

**Where to look:** Woodlands, parks and gardens from May to November. Unlike wasps, hornets fly after dark and are attracted to lights. You may see them on warm nights.

## Wool carder bee (*Anthidium manicatum*)

**Description:** A striking black and yellow species easily recognised by the golden spots on either side of the abdomen with a wingspan of 20mm and body length of up to 13mm (females) and 17mm (males). Males patrol a territory of flowers (eg. woundworts, deadnettle, foxgloves and toadflax), darting at other insect intruders that stray close, even grappling them to the ground. Females are allowed access to the territory where they can feed on the flowers. Females "card" the down from hairy plants such as lamb's ears to use as a nest lining material.

**Where to look:** gardens, fields and meadows between May and September.

## *Leucozona lucorum*

**Description:** A striking and distinctive hoverfly with a white band across the body and black wing patches and body length of 12 – 15mm. The scutellum (the triangular plate on the top of the insect, near where the wings attach) is orangey brown (not black). Hoverflies have a swift, darting flight in addition to their remarkable hovering ability. The adults feed on nectar and pollen. If you can, please send us a picture of the *Leucozona lucorum* you spotted.

**Where to look:** Dappled sunshine in woodland rides and edges, gardens, roadside verges and hedgerows, often near plants of red campion (*Silene dioica*) and stitchwort (*Stellaria holostea*) from May to August.