

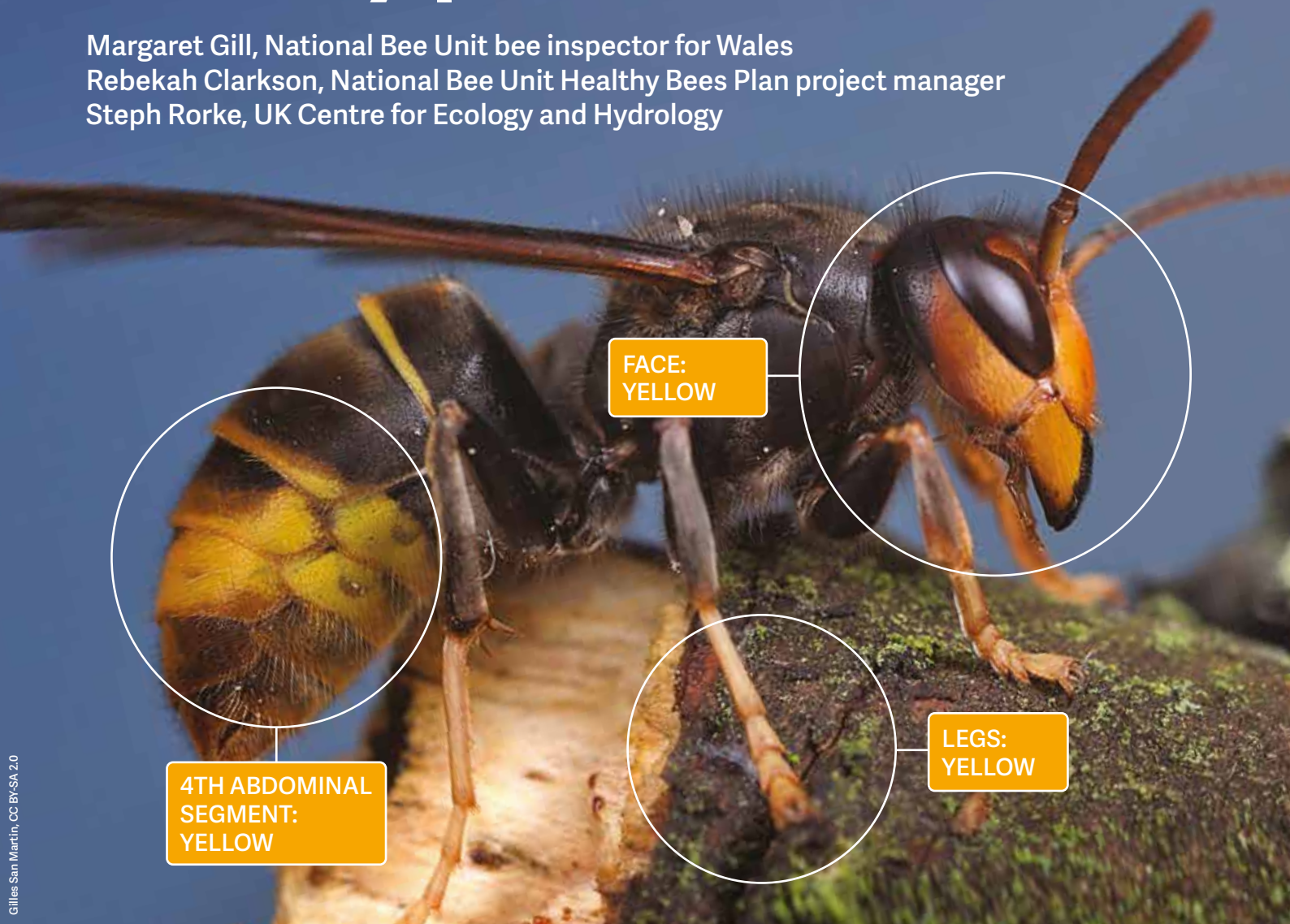
Over 9000 reports in 2020 but only two were confirmed as Asian hornets

# Asian hornet identity parade

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During the 2020 lockdowns, there were 9,592 reported sightings of insects believed to be *Vespa velutina* (Asian hornet or yellow-legged hornet). That was a 43% increase in reports on the previous year, but only two of the 2020 sightings were confirmed as Asian hornets. Both sightings were near the same location in Gosport, Hampshire, where a nest was located, then destroyed on the 8 September 2020. Lots of other insects were being confused with *Vespa velutina*. This feature aims to inform beekeepers and the general public of what to look for and the most commonly misidentified insects.

The Asian hornet, an invasive non-native species originating in Asia, is a resilient insect that poses a serious threat to our native pollinators. It arrived with imports into southern France in 2004 and, from what is believed to have been one viable queen, *Vespa velutina* has colonised France, parts of Spain, Portugal, Italy, Germany, Netherlands, Belgium and the Channel Islands. And it is still spreading.

2020 saw only two confirmed reports but more are expected later this year

Each year the race is on to find any UK nests of the Asian hornet before the end of the season when new unmated queens emerge. Most genuine sightings are in September and October, so the BBKA Asian Hornet Week, 6–13 September 2021, aims to raise awareness of Asian hornets and to encourage reports of suspected sightings.

Thousands of reported sightings are triaged by the UK Centre for Ecology and Hydrology (UKCEH) to decide which reports require further investigation. Clear images are investigated by the Animal and Plant Health Agency's (APHA) National Bee Unit (NBU) inspectors and some sightings are sent to the local BBKA and other volunteer Asian hornet teams to investigate.



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Clear photographs enable well-informed decisions and can eliminate misidentified insects. The graph on page 25 shows the nature and frequency of common misidentifications by month. Many of the UK's native insects have similar features to the Asian hornet, but by honing identification skills to look for key features, correct identification becomes easier.



### Reporting a suspected Asian hornet sighting

If you suspect you have seen an Asian hornet, report it using an iPhone or Android app (the Asian Hornet Watch app) or report a sighting here: [tinyurl.com/BC-AsianHornet](https://tinyurl.com/BC-AsianHornet) Please include photographs if safe to take one.

## Asian hornet compared with commonly confused insects



**Asian hornet**  
*Vespa velutina*

**Size**  
Queen: up to 30mm  
Worker: up to 25mm  
Drone: up to 24mm

**Thorax**  
Dark and velvety

**Abdomen**  
Dark brown with a yellow-orange band on the 4th segment

**Head**  
Dark when seen from above, orange from the front

**Wings**  
Dark smoky-brown

**Flight**  
Never active at night

**Range**  
Widespread in Asia. Spreading across mainland Europe. Found and destroyed in GB since 2016

**Habitat**  
Thrives where food is plentiful, eg near apiaries. A generalist insect predator, also scavenges

**Nests**  
Often found high in trees, also close to the ground

**When seen**  
Queens: February–April,  
Workers August–October



THE MOST COMMONLY CONFUSED

**European hornet**  
*Vespa crabro*

**Size**  
Queen: up to 35mm  
Worker: 25mm

**Abdomen**  
Predominantly yellow with reddish-brown stripes

**Thorax**  
Reddish-brown

**Head**  
Yellow with large C-shaped eyes

**Wings**  
Reddish-brown

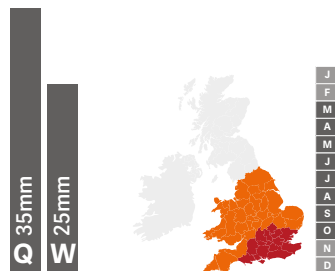
**Flight**  
Loud low buzzing noise  
Can be seen flying at night

**Range**  
Mainly in the south east of England but extending into the south west, Wales and as far north as Yorkshire

**Habitat**  
Lowland woodlands. Also seen in agricultural and garden habitats

**Nests**  
Papery nests in hollow trees, attics and wall cavities, usually over two metres above ground

**When seen**  
Throughout the year



COMMONLY CONFUSED

**Hornet mimic hoverfly**  
*Volucella zonaria*

**Size**  
25mm

**Abdomen**  
Yellow and black striped

**Eyes**  
Large, dark and iridescent

**Thorax**  
Reddish-brown

**Legs**  
Reddish-brown

**Face**  
Yellow

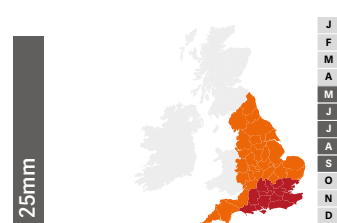
**Range**  
Widespread in the south and east of England but also north and west.

**Habitat**  
Urban areas

**When seen**  
May to September, especially July and August feeding on nectar

**This harmless hoverfly mimics the colourings and markings of hornets and wasps as a defence mechanism to keep predators like birds away. Females even lay their eggs in wasp and hornet nests where their larvae can be found.**

**First found in the UK in the late 1930s or early 1940s**



COMMONLY CONFUSED

**Giant woodwasp**  
*Urocerus gigas*

**Size**  
Queen: 45mm  
Males: 28mm

**Abdomen**  
Females: black and yellow bands  
Males: orange-red brown (smaller)

**Eyes**  
Yellow

**Antennae**  
Yellow

**Wings**  
Clouded and slightly yellow-brown

**Legs**  
Females: yellow

**Face**  
Females: black

**Ovipositor**  
Females: long and sting-like  
Males: absent

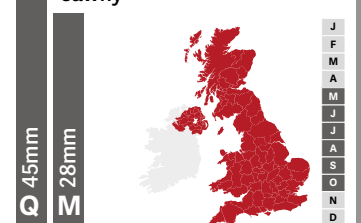
**Flight**  
Often mistaken for a hornet

**Range**  
Throughout the UK

**Habitat**  
In or near coniferous woodland. Urban areas, agricultural land

**When seen**  
May–October

**Giant woodwasp is a large sawfly**

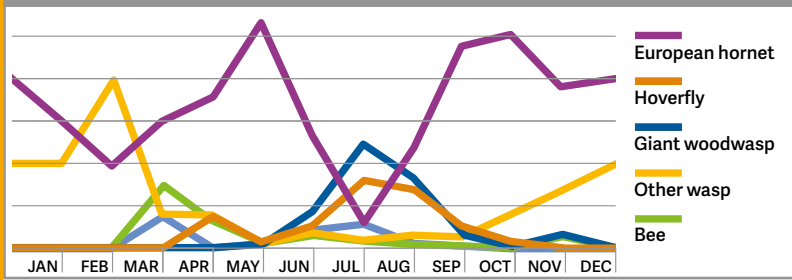


Photos by: Steven Falk (www.stevenfalk.co.uk) except: Ichneumonidae stramenor by Martin Cooper www.flickr.com/photos/m-a-r-t-i-n/2677858554. Asian hornet images by David Walker



ASIAN HORNET

Five major misidentifications



COMMONLY CONFUSED

**Dark giant horsefly**  
*Tabanus sudeticus*

**Size**  
25mm

**Abdomen**  
Broad and pointed with light and dark bands black through to brown with contrasting light-brown, yellow and cream areas

**Eyes**  
Large, dark and iridescent

**Thorax**  
Dark to light-brown

**Legs**  
Dark to light-brown

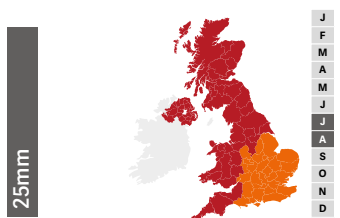
**Flight**  
Deep humming sound which abruptly stops before it settles on a feeding host

**Range**  
Throughout the UK but most common in west and north

**Habitat**  
Boggy areas, which it needs to reproduce. Most rural habitats

**When seen**  
July and August

**Commonly feeds on the blood of cattle, deer and horses but is also known to feed on people**



**Hornet clearwing moth**  
*Sesia apiformis*

**Size**  
30–45mm  
Wingspan 33–50mm

**Body**  
Predominantly yellow body with black and dark-brown bands of varying widths – mimics hornet markings

**Legs**  
Yellow

**Face**  
Yellow

**Wings**  
Clear with orange and brown edges

**Range**  
Southern UK, rarely north of the Midlands

**Habitat**  
Trees in the open – parks, golf courses and hedgerows. Poplar trees are needed for reproduction. Adults emerge in June and July and can be seen low down on trunks in the morning

**When seen**  
June and July



**Median wasp**  
*Dolichovespula media*

**Size**  
Queens up to 22mm  
Workers up to 15mm (smaller than hornets)

**Abdomen**  
From yellow and black to very dark and almost black individuals with minimal yellow banding

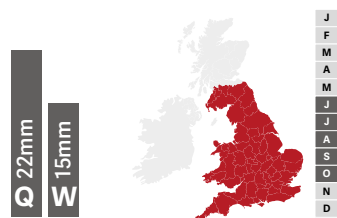
**Nest**  
Built of chewed up wood pulp; in buildings and cavities, also hanging from trees and bushes

**Range**  
Mostly in the south and east England but has spread to Wales and southern Scotland

**Habitat**  
Mostly lowland habitats such as woodland, farmland, towns and parks

**When seen**  
June to October

**Although a close relative of other UK social wasp species, it was first seen in the UK in c1980**



**Cockchafer beetle**  
*Melolontha melolontha*

**Size**  
30mm

**Body**  
Black

**Legs**  
Chestnut brown

**Underside**  
Fine white hairs

**Antennae**  
Feathered

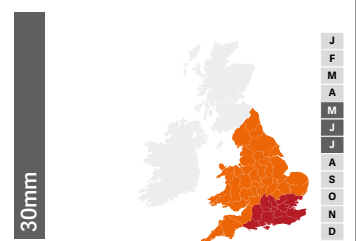
**Habitat**  
Broadleaf woodland margins, especially near farmland, grassland or gardens

**Flight**  
Noisy ungainly flight, typically at dusk when they fly to feeding sites, sometimes forming large aggregations

**Range**  
Throughout England and Wales but most common in the south

**When seen**  
May–July

**Adult beetles emerge between May and July and live for about six weeks while they reproduce**





ASIAN HORNET

## The Giant Asian hornet

The insects in this article are the most commonly but not the only insects misidentified as the Asian hornet. The Giant Asian hornet (*Vespa mandarinia*) a larger insect, emotively dubbed by the media as Murder Hornet, was discovered in North America in 2020. It is not believed to be in Europe. The pattern on its abdomen is similar to our native hornet and when surfing the internet it's easy to confuse the two. The NBU is grateful to the army of naturalists and beekeepers who spend time correcting *Vespa mandarinia* images incorrectly labelled as *Vespa velutina* posted on news websites.

## More commonly confused insects



### Drone hoverfly *Eristalis tenax*

**Size**

About 20mm

**Abdomen**

Stocky. Black and orange or dark-yellow banded

**Eyes**

Large and dark

**Thorax**

Brown and hairy

**Face**

Brown and hairy

**Flight**

Males: territorial and perform hovering displays to attract mates, also dart after other males intruding on their territory

**Range**

Widespread throughout the UK, less common in NE Scotland

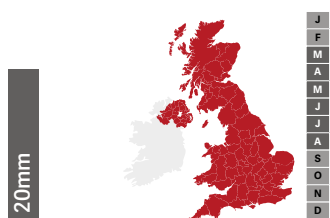
**Habitat**

Commonly seen hovering near hedgerows and bushes on warm days

**When seen**

Year-round, but especially spring and summer

Mimic male (drone) honey bees



### Giant alder sawfly *Cimbex conatus*

**Size**

30mm

**Abdomen**

Broad with yellow and brown striped markings

**Thorax**

Reddish-brown with darker brown areas

**Legs**

Reddish-brown with darker brown areas

**Head**

Reddish-brown with darker brown areas

**Wings**

Smoky-brown opaque, resembling wings of hornets

**Range**

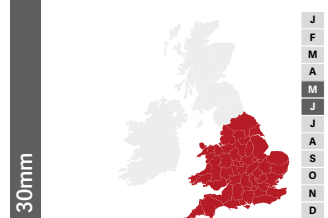
South and east. As far north as Yorkshire and west to Cornwall

**Habitat**

Anywhere there are alders – their larvae feed on the trees

**When seen**

May and June



### Ichneumon wasp *Ichneumon stramentor*

**Size**

13–18mm

**Abdomen**

Female: long tapered abdomen which is yellow at the front and black at the end with a yellow spot

**Thorax**

Predominantly black with a yellow spot

**Legs**

Predominantly black with a yellow spot

**Antennae**

Predominantly black  
Females (only): Predominantly black with yellow spot

**Range**

Common throughout the UK

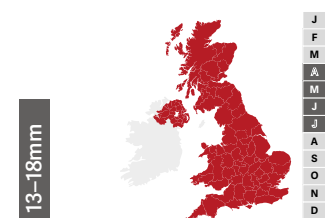
**Habitat**

Especially but not exclusively meadow, hedgerow, woodland

**When seen**

April–July

One of a group of insects that parasitise butterfly and moth caterpillars.



### Broad-bodied chaser dragonfly *Libellula depressa*

**Size**

39–48mm

**Abdomen**

Broad and flat.

Females: golden-brown

abdomen with pale edges

Males: blue abdomen with

yellow edges

**Wings**

Large and transparent. Dark-brown wing bases at right angles to body when perched on foliage

**Flight**

Swift across water to catch insects

Females: may hover over water dipping their abdomen in to lay eggs

**Range**

Throughout southern and central England and South Wales

**Habitat**

Rural or urban, often found near ponds and small lakes

**When seen**

May–July

