Asian hornet

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Welcome to the SDBKA Asian Hornet Team (AHT) website

The asian hornet is the insect world's top predator. It is beginning to establish itself in Kent and elsewhere in UK, mainly in the south. It arrived into France from China in 2004 and has spread quickly in all directions across Europe, causing major environmental damage and some fatalities, and decimating honey bee colonies. Its impact on the insect food chain is huge - honey bees are only a part. Consequently it impacts the whole of the environment and agriculture, and ultimately our economy and society. Asian Hornets will affect us all in some way.

An individual is docile however, it can be dangerous to people, farm animals and pets, because it will aggressively defend its nest in a mass attack, if provoked.

Stay more than 10m away from a nest

There was a huge upsurge in sightings and nests last year in UK and the first sightings in 2024 were a month earlier than in 2023.

Defra has classified it as an Invasive Non-Native Species and Defra's Contingency Plan requires Bee Keeping Associations to establish Asian Hornet Teams (AHTs) to help organise a bottom-up, community defence for 2024, with AHTs, beekeepers and everyone in our communities collaborating closely.

Asian Hornets have been found in Somerset and Hampshire, we need to be prepared for them in Wiltshire as there is new evidence that they have arrived.

Please read the information below and act.

Monitor.....Identify.....Report

Your community needs you

aht-coordinator@sdbka.org

News 2024

- 27 April. Probable AH queen sighting in Orcheston, Wilts. Awaiting NBU advice
- 8 March. AH queen found in Ash, Kent
- 20/21 March AH found in Preston and East Romford, London.

In the news:

- Southern Water buzzes into action to catch Asian Hornet Queens in Kent and East Sussex - Southern Water workers have turned their hand to pest control at wastewater treatment site across Kent and East Sussex to tackle an influx of Asian Hornet. (Kent and Sussex). https://www.southernwater.co.uk/latest-news-and-stories/southern-water-buzzes-into-action-to-catch-asian-hornet-queens-in-kent-and-east-sussex/
- Bishop Stortford Beekeepers' plea to public to report sightings of destructive Asian hornet.(Herts and Essex) https://www.bishopsstortfordindependent.co.uk/news/beekeepers-plea-to-public-to-report-sightings-of-destructiv-9361550/
- This AI early warning system could limit Asian hornet invasions. https://theconversation.com/this-ai-early-warning-system-could-limit-asian-hornet-invasions-226285
- The voracious Asian hornet – the invertebrate symbol of our dark times. (interesting angle from the Guardian...) https://www.theguardian.com/environment/2024/apr/05/asian-yellow-legged-hornet-invertebrate-symbol-of-our-dark-times
- What is France's new national plan to fight against Asian hornets? The hornets represent a triple threat: to the beekeeping industry, to the environment and to public health, said the French minister for biodiversity. https://www.connexionfrance.com/news/what-is-frances-new-national-plan-to-fight-against-asian-hornets/652982?fbclid=IwAR0vMDkkRgrHxS5R19njKnz_b6xbIltuPnzwfuK9oG66jpyf3YjeP7YI7sA

Quick Facts

- A single Yellow-Legged Asian hornet queen arrived in France in 2004, an accidental import from China
- The insect has since invaded many parts of Western Europe
- They were first discovered in the UK in 2016
- Between 2016 and 2022 there were 23 confirmed sightings in the UK, including 13 nests = 1-2 nests/year
- In 2023, 72 nests were found in 56 locations – more than three times the previous six years combined
- A voracious predator which poses a significant threat to honey bees and all native insects – it has no natural predators in the UK
- An average nest can consume over 11kg of insects in one year = about 1 million insects
- It has already altered the biodiversity in France
- Their habit of hovering outside the hive stops the bees from collecting nectar and pollen to feed themselves
- Can now be found in 12 European countries
- Some make their way to the UK by flying across the Channel – other routes include via ferries, containers and vehicles
- We need eyes on the ground everywhere – in towns and cities, parks and woodland areas.... ports, marinas, garden centres, orchards, vineyards, parks, timber yards, fruit and veg wholesalers, transport hubs and gardens need to be extra vigilant.
- Yellow-Legged Asian hornets have been found on ferries, sailing boats, and in imported goods such as wood, soil and other horticulture products.
- Sightings should be reported as soon as possible, complete with an image if possible, via the Asian Hornet Watch app - available on the app stores for Android and iPhone
- The National Bee Unit (NBU) will then follow up reports and destroy their nests
- A single hornet is unlikely to cause injury if left alone
- They can become very aggressive if their nest is disturbed – keep a distance of at least 10 metres away
- The first confirmed sighting in 2024 was on 11th March, found in a potting shed at Ash, near Canterbury in Kent
- Asian hornets have a stinger up to 3.5mm long, and they can use it multiple times
- Primary nests are roughly 5 -10 cm in diameter. These can often be found in sheds, garages, porches, bird boxes, hedgerows and brambles, even vehicle engines – generally at a height of less than 10m
- Secondary nests are 60-80 cm across and built close to primary nests, usually within a distance of 100m.

These are usually found in the tops of trees, but those built lower down are a danger to those who might accidentally disturb them; for example those in hedges, bramble patches, utility boxes etc. They can be very difficult to spot when concealed by vegetation.

- One nest can produce 350+ queens, some of which will begin new colonies the following year.
- Asian hornets present one of the biggest threats to UK honey bees and other pollinators in a generation
- Not to be confused with "Vespa mandarinia", the Asian giant hornet, aka 'murder hornet'. This, to date, has never been found in Europe.
- All our efforts are currently working towards eradication

Identification

Most bees or wasp-like insects that you see will be familiar to you. However the asian hornet is quite different.

The asian hornet's distinguishing features are:

- It is almost completely black and can be quite shiny.
- It has one big yellow band low down its body (thorax, 4th segment)
- It has bright yellow legs
- It tends to fly in a straight line.
- It has a very loud and low frequency buzz.

Below left is our native European Hornet, which is reddy-brown with a wasp-like yellow body.

Below also is our Giant Wood Wasp or Horntail, which is a harmless sawfly that looks fairly similar to the Asian Hornet. It can be up to 4 cm long and it has a loud, low frequency buzz.

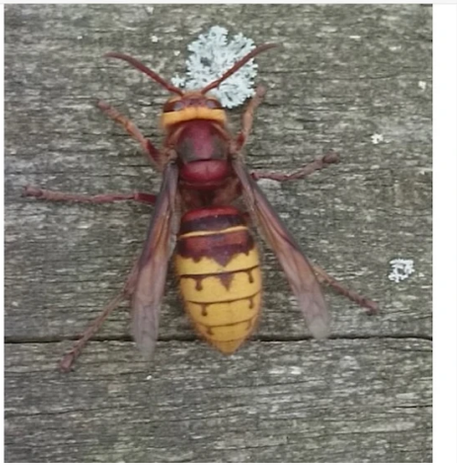
Its long ovipositor tail is used to lay eggs.

All the rest below are Asian Hornets. See more photos of similar species.

This Defra/APHA video is an excellent introduction - please watch it!!

https://www.youtube.com/watch?v=l1mLgrvoHzA

Courtesy of The Angling Trust



European Hornet

Giant wood wasp

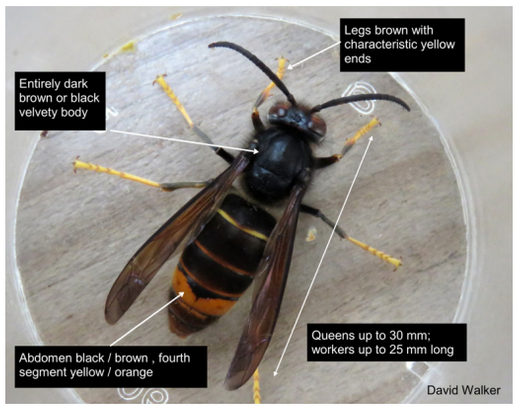
Giant horntail ©Dr Malcolm Storey, Wildlife Trusts

Giant wood wasp

Nature Spot, (c) Carole Lunn

Giant wood wasp

Licensed by Google



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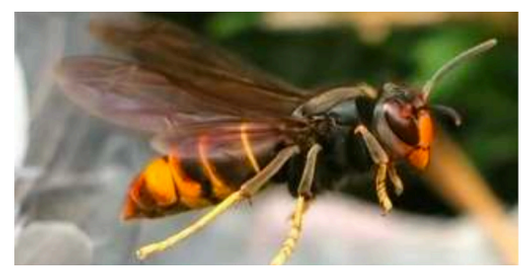

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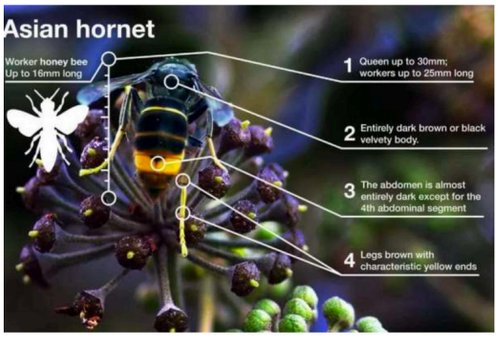

Credit: Non-Native Species Secretariat, Animal Plant and Health Agency

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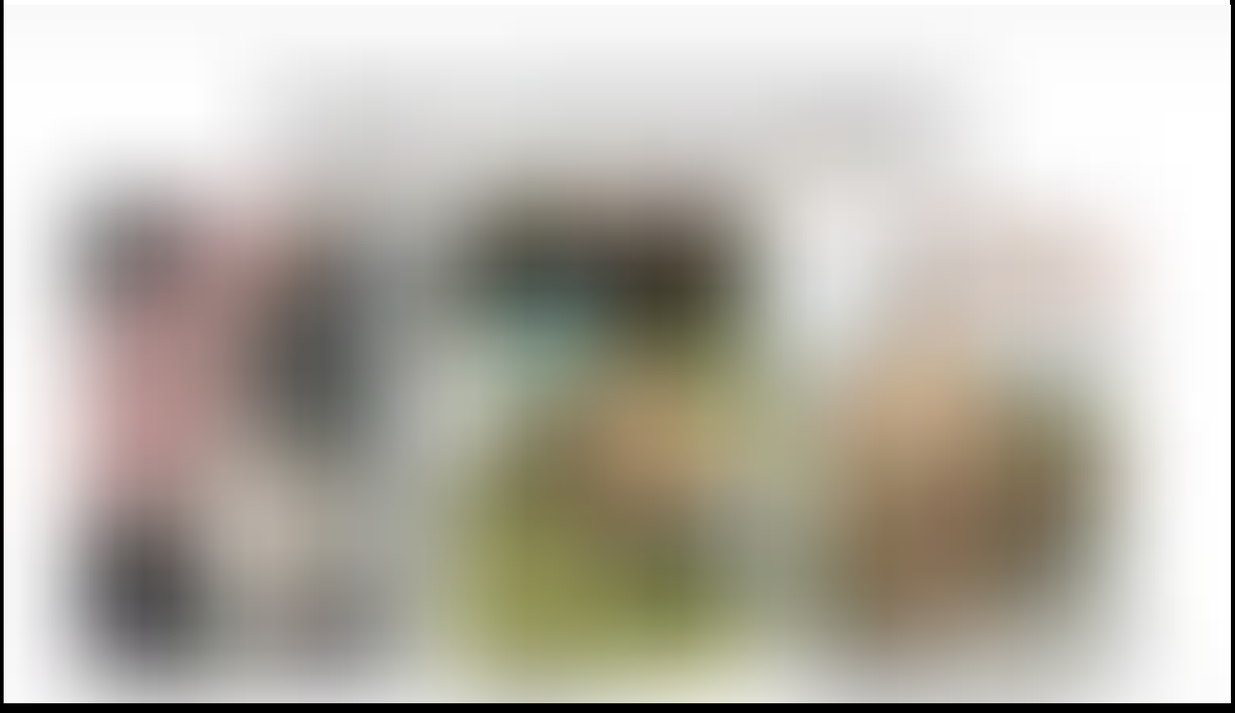
Nests

A fertile queen survives the winter hibernation and immediately looks for sugar to give her energy. She will then search for a good location to build a small primary nest in which she will eventually raise up to 100 worker hornets. This may take her 2 months. The primary nest is small, just like a small wasp nest, and likely to be low down in a shed, stable, garage or a loft - anywhere that a wasp nest might happen.

Around May, most of these workers will move to a new location within about 700m and build a much larger secondary nest, either high in the trees or down low in dense hedges or brambles. When it is ready, the queen will move to the secondary nest and continue laying, until the nest has around 6,000 worker hornets. All workers are non-fertile females. However, the queen will also create virgin queens and drones (males) that will eventually mate to produce some 350 fertilised queens that can each potentially create a new colony the following year. No other wasp/bee insect in the UK builds nests like the secondary nests, so there can be no confusion.

Below are pictures of small primary nests and big secondary nests, so you can recognise them and report them. Secondary nests can be much larger than those shown here. *Photos courtesy of BBKA.*



Report it

1. You can report sightings or a nest using the 'Asian Hornet Watch' app, which is available to download from Apple or Android Screenshots of the iPhone app below show what you can do.
2. Members of the public can also report sightings by email to alertnonnative@ceh.ac.uk with a photo. Or report it online at https://risc.brc.ac.uk/alert.php?species=asian_hornet
3. In addition, please **report it to your local AHT** by email at aht-coordinator@sdbka.org. Take a picture, share it by email saying where and when you took the picture and giving a mobile number so that the AHT can contact you.

- Further details on the appearance of an Asian hornet can be found on the Bee Base guide or the non-native species identification guide.
- This APHA Video shows an asian hornet in Portugal preparing a dead bee to take back to its nest.

What you can do

Anyone can help. Anyone can contribute. Anyone can join.

Watch & Monitor

Using a bait station can attract any asian hornet within 700m or so.

Identify

Identify it, if you can, **before** you report it

Report

Report it using the Apple app, the Android app or online as shown above

Assess your risks

Is your family or work place aware and prepared?

Find out more

Collaborate & Join

Collaborate with others in your community, at school or at work. Join our AHT volunteers who are taking the lead in several areas and groups

More information

The Asian Hornet, *Vespa velutina*, is a native species of Asia which was inadvertently introduced to South France in 2004. It has spread rapidly since then and is now widespread in France, Spain, Portugal and Belgium, and is moving into Italy. There were over 500,000 reported nests in France in 2023. There were more than 300 nests in Jersey.

Before 2023, only one or two nests were found each year in UK . In 2023, there were 151 confirmed sightings with 72 nests found and destroyed, mostly in Kent, but with 2 in the New Forest and 2 more near Plymouth. This is of great concern, since a single secondary nest in September can produce around 350 queens that disperse, potentially flying up to 50 miles, before they hibernate and the winter survivors emerge the next year to create a new nest with thousands of workers and up to 350 more queens to start the cycle again. Hence the rapid invasion. We have to destroy at least 98% of all Asian Hornet nests that exist just to maintain the status quo today. It's unlikely this will happen. The government view is that 2024 is probably the last chance we have to eradicate the asian hornet in UK. Most others believe that the asian hornet is probably already established and that we need to develop ways to minimise its presence and impact, but without causing more problems ourselves.

The Asian Hornet is a voracious predator of other insects, feeding on the protein in their thorax, and is a danger to our native insects. An Asian Hornet colony will typically consume 12 - 25 kg of insects in a year, so even a single colony can have a severe impact on the local insect population, and hence to flowers, birds and the whole local ecosystem. Colonies of honey bees are a particularly attractive food source to a mature Asian Hornet colony in late summer or autumn, when evidence from France indicates that honey bees are more than 50% of the hornets' prey. Colonies can be rapidly destroyed by this predation. Even when their predation is unsuccessful, whether on honey bees or bumble bees etc, the pressure and intimidation discourages bees from foraging and the overall hive's health to decline such that they are less likely to survive the winter.

March 2024. An Asian Hornet queen has already been found in Kent, more than one month earlier than 2023.
This spring is perhaps our last opportunity to prevent Asian Hornet becoming established in the UK.

We have to collaborate across the country to manage the situation. SDBKA is running community presentations and workshops to raise awareness and understanding as fast as possible. Ask for one for your community. Email: aht-coordinator@sdbka.org

CONTACT US

Name

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