BEEKEEPING MODULES

Yellow Legged Hornet

These presentations are funded by the Scottish Government as part of Scotland's Honey Bee Health Strategy

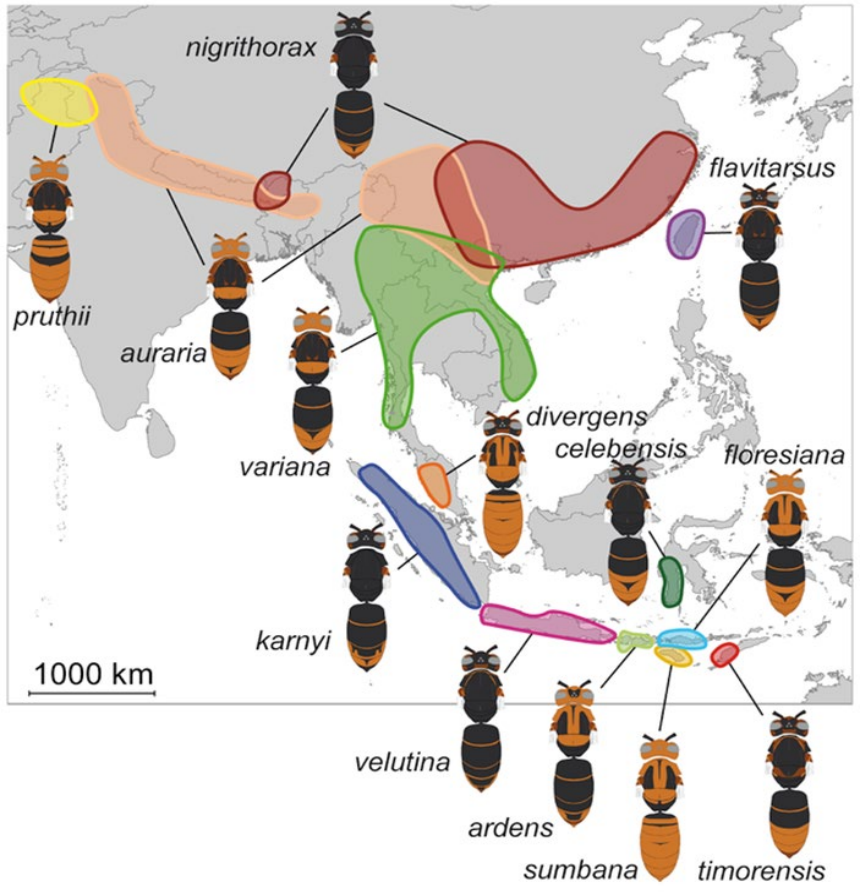
Why has the name changed?

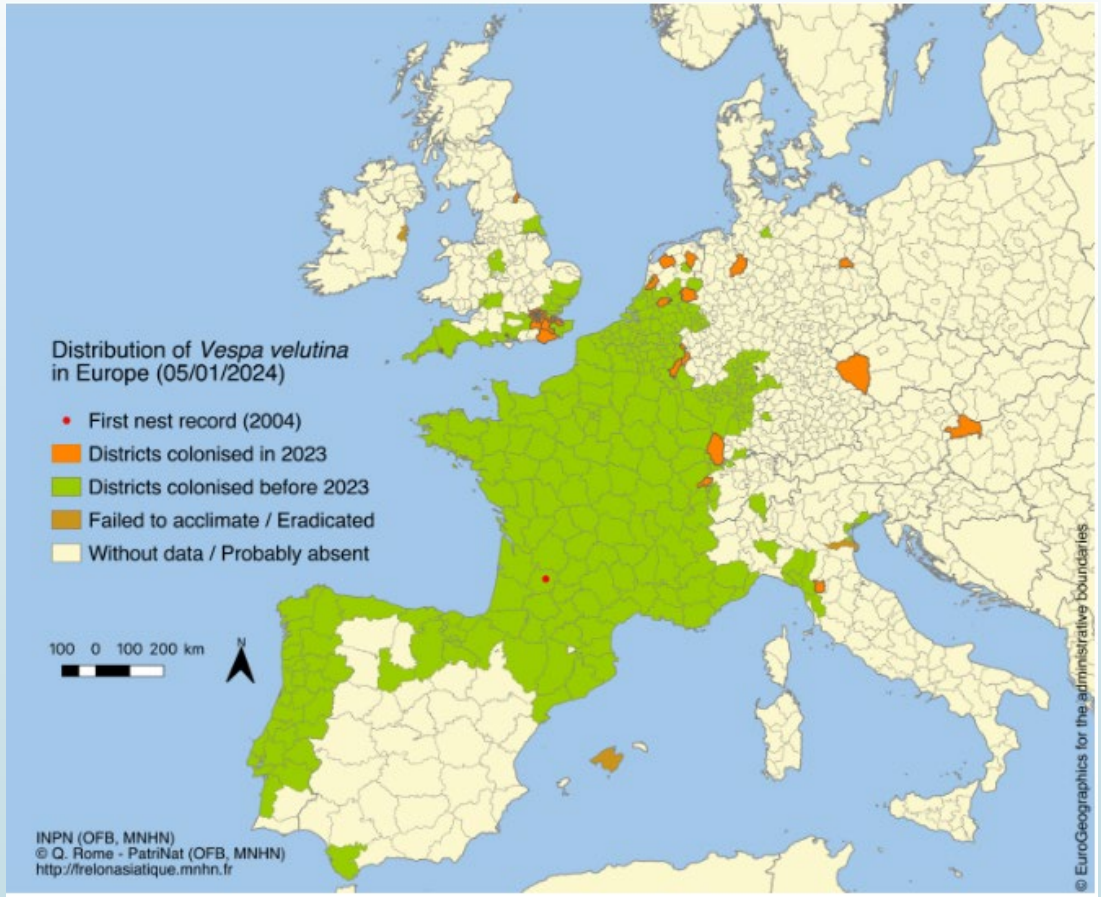
- Following feedback from external stakeholders, the Defra Bee Health Programme Board opted to adopt the term **"yellow-legged hornet"** as it is considered a more descriptive and accurate name for the species.

- Scottish Government also adopted this change to help **avoid confusion** and improve communication across all related sectors and the public. It is hoped this will also reduce the number of erroneous reports.

How Did It Get Here?

- From Shanghai region of China – a major worldwide shipping port
- First spotted in France in 2004 near garden centre – spread rapidly! ~100km/ year
- This sub-species has also spread to south Korea and Japan





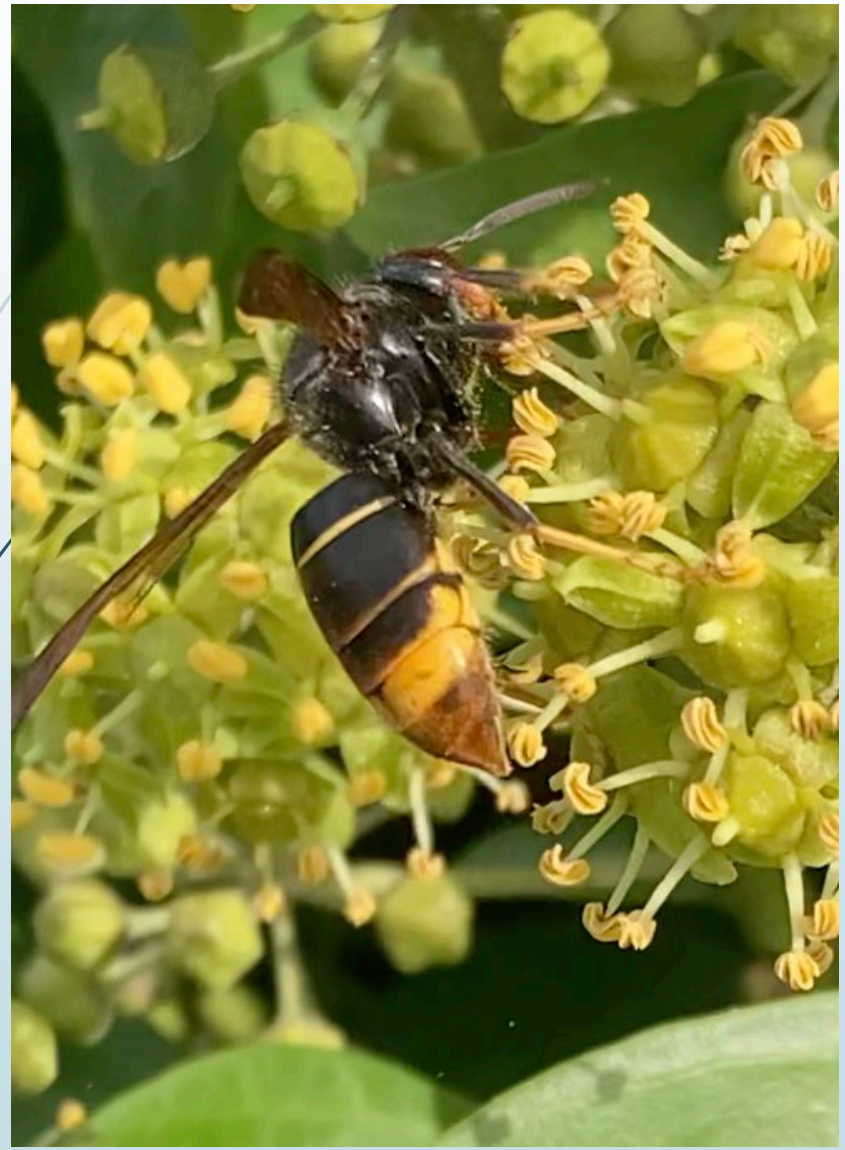
Impact outside native range

- Major predator of bees and insects
- Predation affects European honeybee behaviour – reduced foraging/ no honey crop
- Large numbers of hunting hornets can lead to colony collapse
- Impacts on other pollinators
- **Risk to humans – nest defense**

Click link to see hornets hawking bees in France:

https://youtu.be/4MGJ7KhlgL0

What Is A Non-Native Species?



These are species which has adverse impacts on wildlife and the environment

These species cannot be:-

- Brought into Scotland
- Kept
- Bred
- Transported
- Placed on the market
- Used or exchanged
- Allowed to reproduce
- Be grown or cultivated
- Released into the environment (except under specific exemptions).

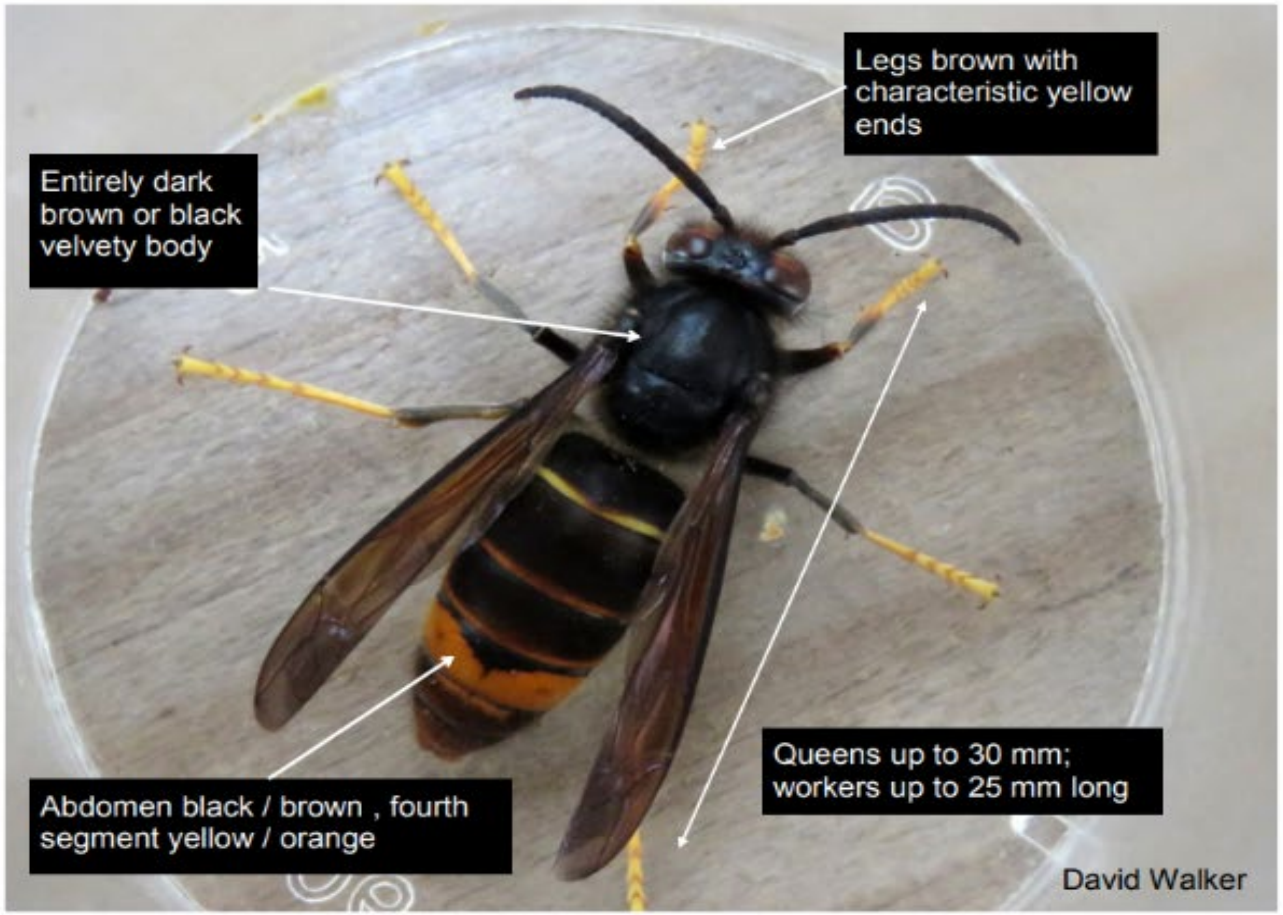
Is this the perfect invasive pest?

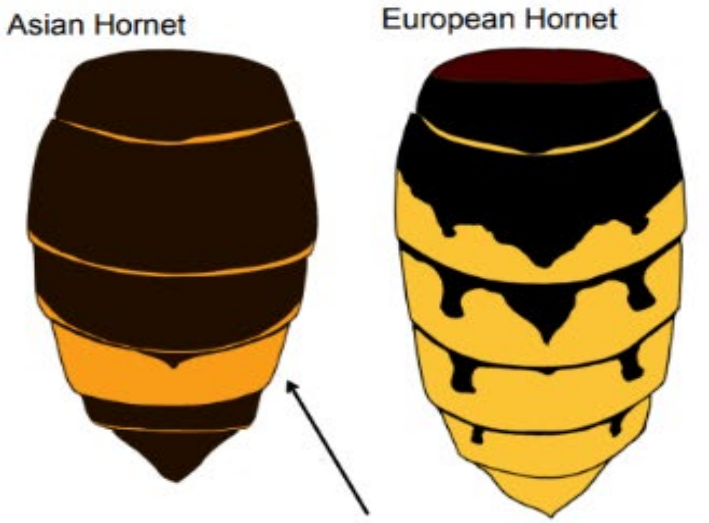
- **From a major port:** lots of opportunity
- **Multiple mating:** single queen can start a new population
- **Strong fliers:** long distance dispersal
- **Hitch hiking:** large numbers of queens each year (100s) overwinter in nooks and crannies
- **Rapid population spread**

1 mated queen = 1 new colony = multiple colonies = expanding population = national problem

Yellow-Legged Hornet - Identification

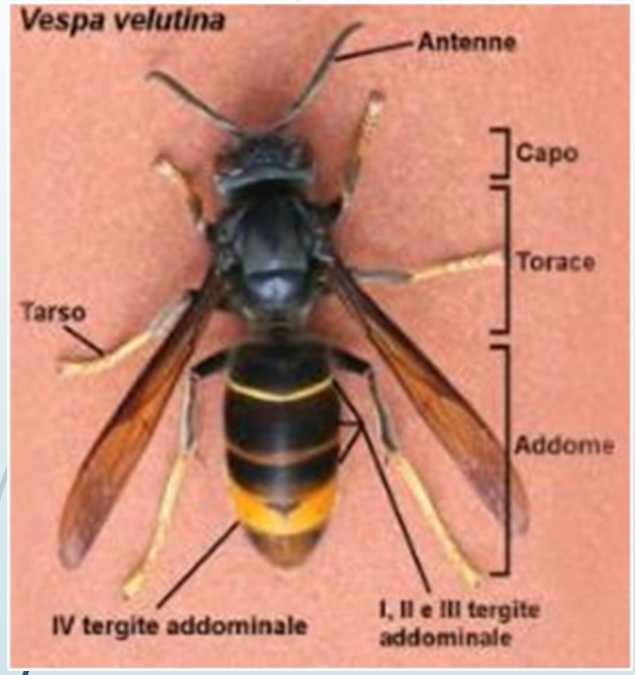
Key ID Features





Asian Hornet abdomen is almost entirely dark except for 4th abdominal segment.

Identification - confusers



European hornet

Median wasp

Horse fly

Giant wood wasp

Life cycle with estimated monthly timings for UK

1. Emergence of founder queens from hibernation
Feb - Mar

2. 'Primary' nest made by founder queen
Apr-May

3. First brood of worker hornets emerge
Apr-May

4. 'Secondary' nest construction & colony growth
May-Sept

5. Mature active nest (several thousand individuals)
Sept-Oct

6. Emergence of sexual adults
Aug-Nov

7. Mating – numerous mated queens, each capable of founding new colony
Sept-Nov

8. Death of colony – mated queens enter hibernation
Nov-Dec

Nest Identification - Spring

Image: John De Carteret

- Over-wintered queens become active and start foraging
- Build a primary nest typically in a lowdown sheltered spot and begin the production of a new colony
- Nest is brown in colour, similar to a wasp nest
- Only fly during the day

Nest Identification - Summer

Image: Pixabay

- The queens build a larger secondary nest which is typically but not always in an elevated position
- A single colony can produce up to 6000 individuals in one season.
- Each Yellow-legged hornet can kill 30-50 honey bees a day
- Can be spotted ‘hawking’ honey bees outside their hive

Nest Identification - Autumn

Image: Claude Alleva on Pixabay

- Nests high up in trees more likely to be seen when the leaves start to fall
- Can be seen foraging on flowering ivy and fallen fruit
- Mated queens leave the nest to find a suitable place to over-winter and leave the workers and males to die

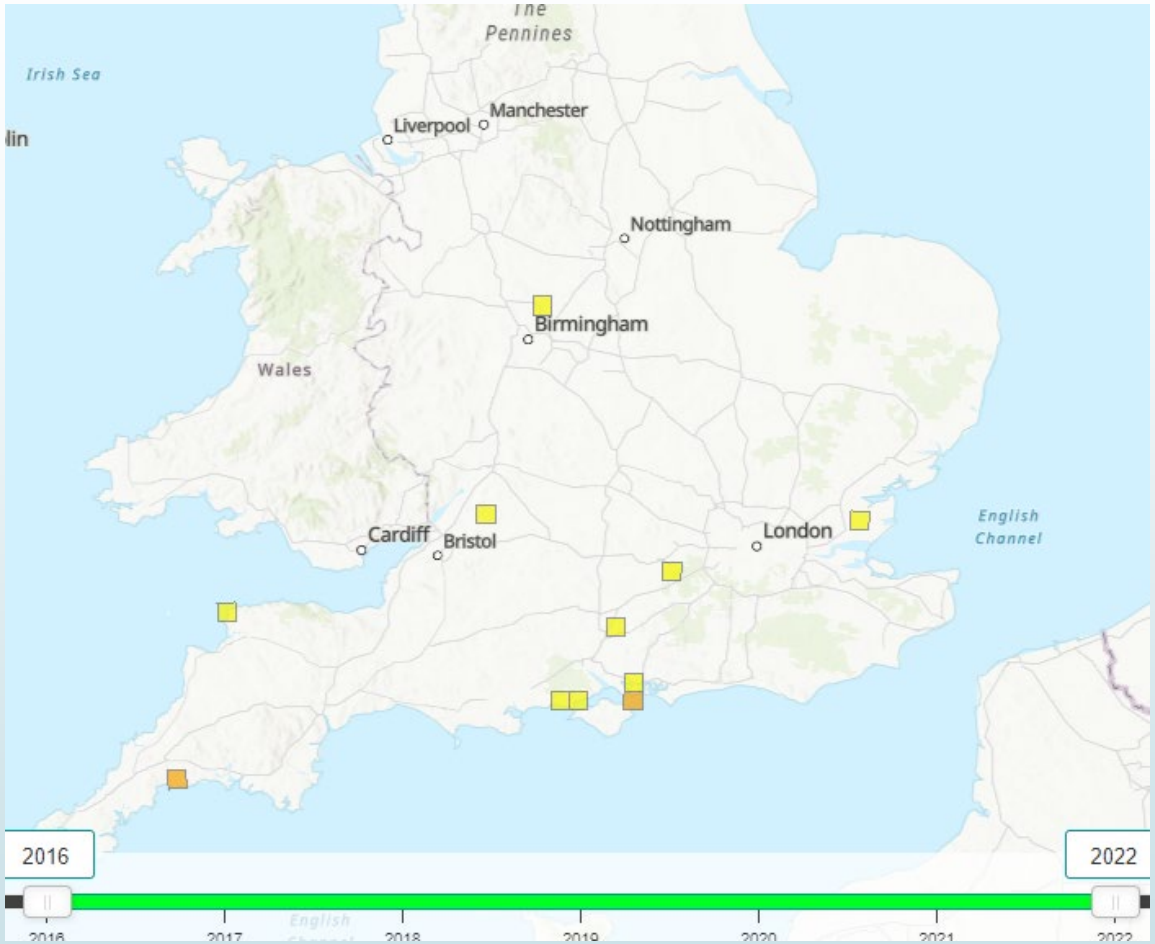
Do not approach or disturb a nest.

Image: Didier Aires on Pixabay

Yellow-Legged Hornets can be extremely aggressive if they feel they are being threatened. Stings are painful and can cause an allergic reaction in some people.

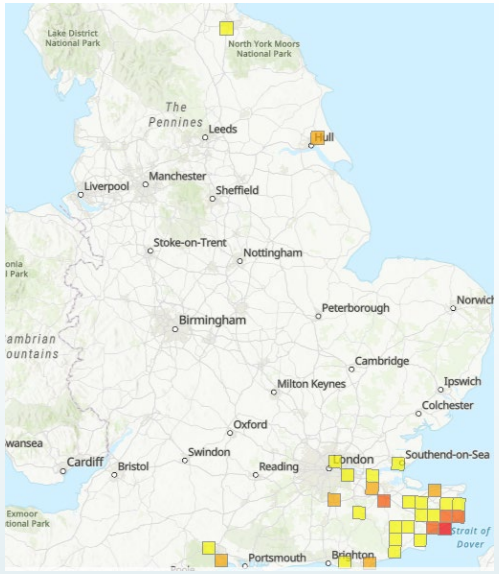
Situation in UK

- **UK 2016 to end 2022:**
- 21 confirmed sightings
- 12 nests destroyed
- First hornet found in 2016
- Single hornet found in Scotland in March 2017 – not confirmed



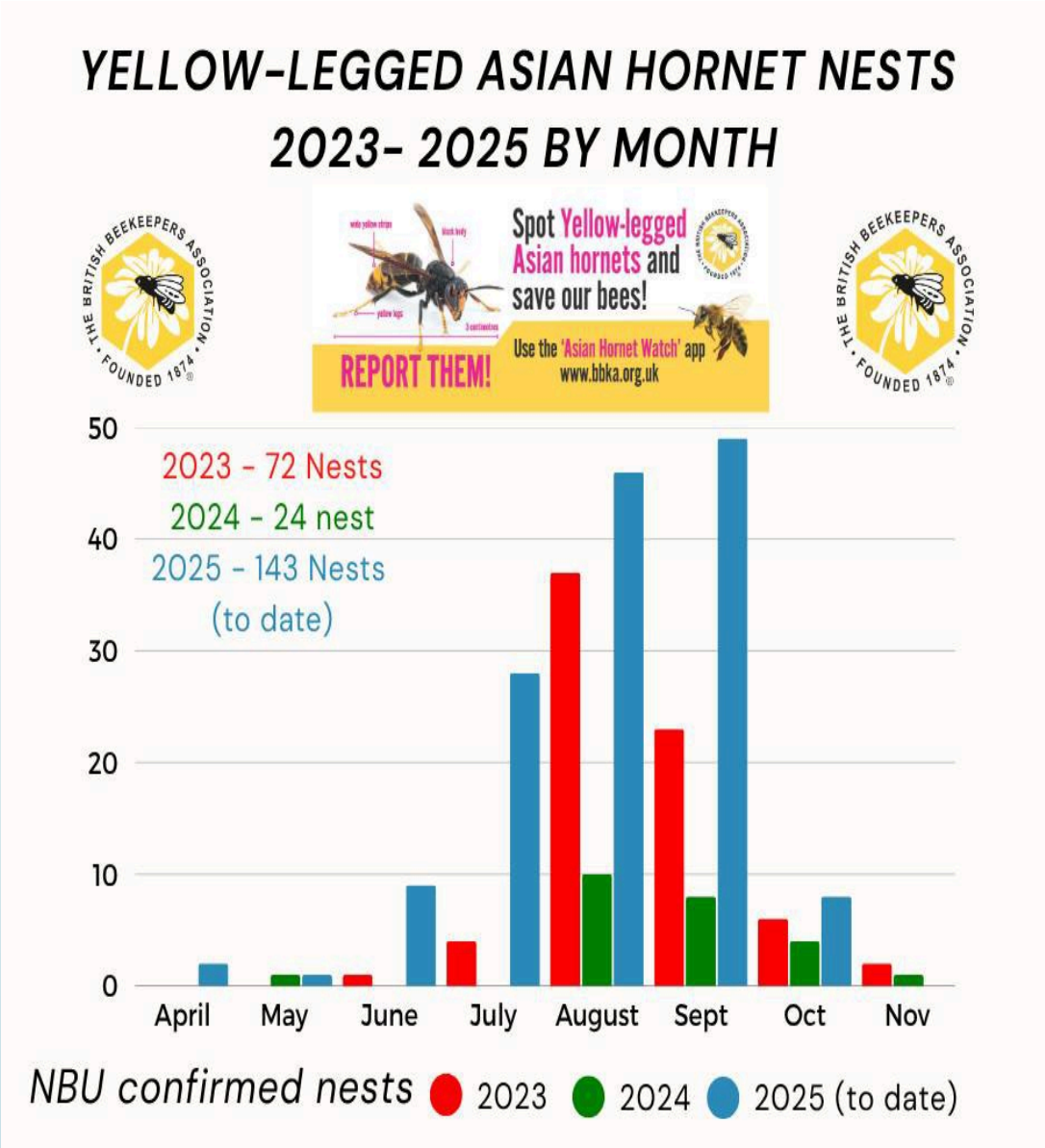
Then in 2023…

- 72 nests in 56 locations
- 1st individual confirmed 5th April (Newcastle)
- 1st nest found 28th June (Kent)
- Most northerly nest at Yarm, near Middlesburgh
- Many findings notable round major ports/transport routes
- Individual at Newcastle second cauliflower report



2025

- 161 YLH nests have been recorded in the UK in 2025 (incl. an ‘unconfirmed’ nest in Hythe, Southampton).
- 119 in Kent, 20 in East Sussex, 4 in Surrey, 2 in Sussex, 3 in West Sussex, 3 in Greater London, 2 in Hampshire, 2 in Essex, 3 in Dorset, 1 in North Yorkshire, 1 in Isles of Scilly and 1 in Cheshire.
- At time of writing there are confirmed sightings in Wrexham, County Cork and in the Dundonald area of Belfast



Where/when you might see them

Yellow-Legged Hornets adapt their dietary preferences as the season progresses.

- Summer: protein-rich foods such as insects, roadkill, fish, bee-hives.
- Autumn: carbohydrate-rich: flowering plants such as ivy, fallen fruits, compost heaps

Legislation

The Wildlife and Countryside Act 1981 (as amended) (sections 14 to 14P)

- Principal legislation dealing with non-native species in Scotland. Covers a range of issues from keeping or releasing a non-native animal out with its native range

Scotland's response

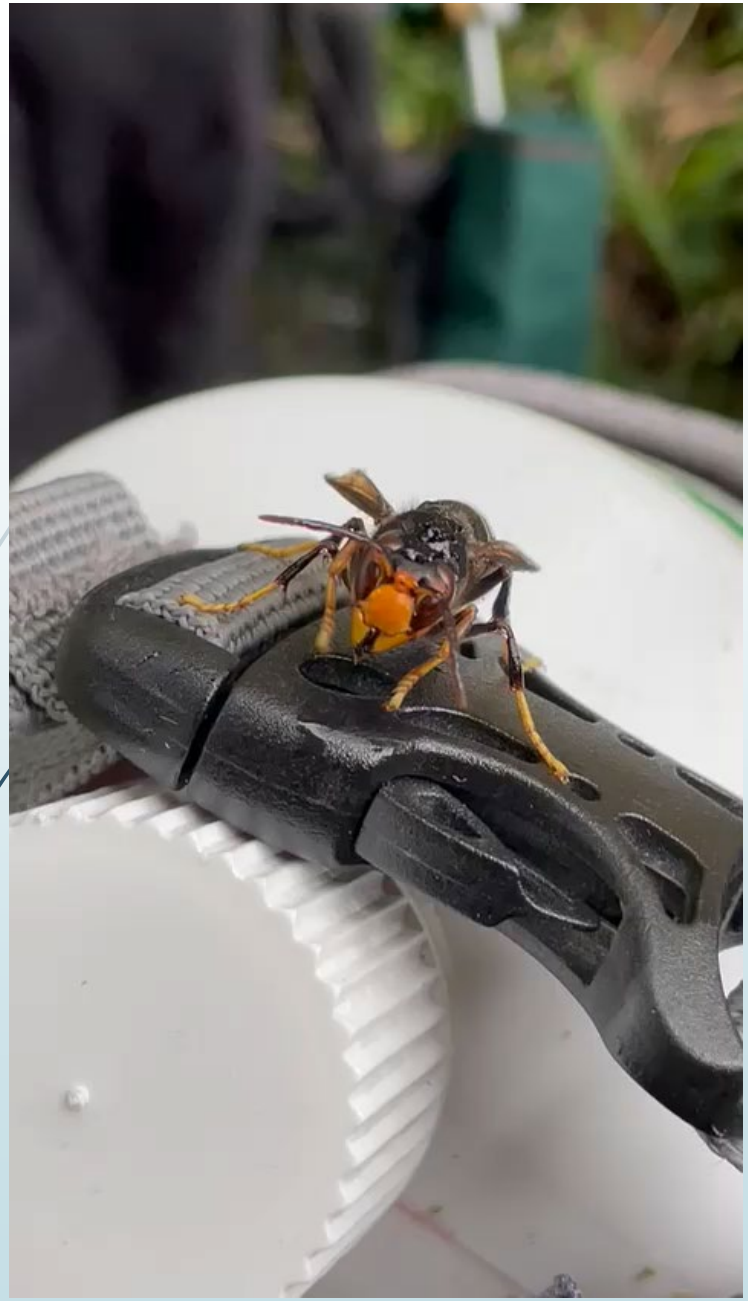
- Contingency plan published and contingency exercises carried out.
- Contingency boxes fully stocked
- Bee inspectors been travelling to Jersey to gain experience in Track & Trace since 2019
- All inspectors regularly go to England to provide assistance to the English response and upskill our inspectors

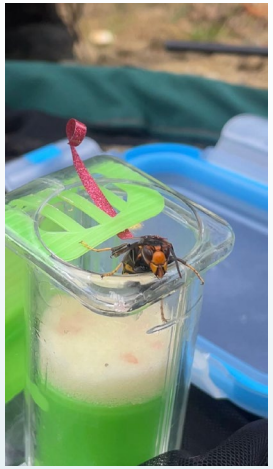
Scottish Government
Riaghaltas na h-Alba

Pest-Specific Contingency Plan

Yellow-Legged Asian Hornet
(*Vespa velutina nigrithorax*)

Courtesy The Animal and Plant Health Agency (APHA), Crown Copyright





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Scottish Government Yellow-Legged Hornet Contingency Plan

Pest-Specific Contingency Plan

Yellow-Legged Asian Hornet
(*Vespa velutina nigrithorax*)

Courtesy The Animal and Plant Health Agency (APHA), Crown Copyright

- Contingency Plan sets out how Scottish Government will triage, assess and manage any credible sightings and/or incursions of the Yellow-legged hornet.

- Available on Scottish Government website – search for Yellow-Legged Hornet Contingency Plan.

Non-Native Species Secretariat

- The GB Non-Native Species Secretariat (NNSS) has responsibility for helping to coordinate the approach to invasive non-native species in Great Britain.

- The NNSS is responsible to a Programme Board which represents the relevant governments and agencies of England, Scotland and Wales.

Reporting Suspect Sightings

Suspected sightings can be reported directly to the NNSS via:
The Asian Hornet Watch app

Alternatively:

An online reporting form via the NNSS website.

Email: alertnonnative@ceh.ac.uk.

- **Only credible sightings will be investigated by SG Bee Health Inspectors.**
- Sightings are considered credible if there is a clear photograph of a Yellow-legged hornet included taken from the location of the sighting, or if there is strong supporting evidence such as information on the characteristics and behaviour of the insect.
- **Photographs of nests or downloaded pictures from the internet do not constitute "credible sighting" and will not be investigated further.**

How You Can Help

- **Familiarise** yourself with the differences between Yellow-Legged Hornets and other Bee, Hornet and Wasp species.
- **Understand** Yellow-legged hornets' life cycle and preferred food at different times of season so you know where to be vigilant.
- **Don't use traps** to monitor for yellow legged hornet
- **Targeted observations:** requires a bit more skill but can be just as successful as trapping and is more environmentally friendly
- **Do NOT approach or attempt to trap** a Yellow-legged hornet or nest.
- **Report** suspect sightings of Yellow-legged hornet and/or nest.

YLH Resources

- Yellow-legged hornet 2025 rolling update » APHA - National Bee Unit - BeeBase
- Asian Hornet » NNSS (nonnativespecies.org)
- Scottish Government Yellow Legged Asian Hornet Contingency Plan
- An online reporting form via the NNSS website.
- Email: alertnonnative@ceh.ac.uk.

Resources Available: Scottish Government and SRUC

Contact: Bees_Mailbox@gov.scot

Scottish Government Honey Bee Health Strategy 2022-2032

Scottish Government Honey Bee Implementation Plan

SRUC Bee Podcasts

Resources Available – Others

BeeBase – Information for Scottish Beekeepers

Scottish Beekeepers Association

Bee Farmers Association

Honey bee health: guidance - gov.scot

Scottish Government
Riaghaltas na h-Alba

SRUC

BEEKEEPING GOVERNMENT TRAINING MODULES

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Thanks to the Scottish inspection team for some of the pictures and videos.

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