

Yellow-legged hornet response

Vespa velutina

May 2026



Overview

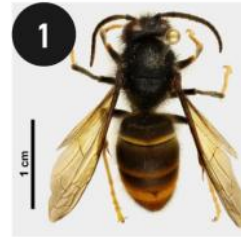
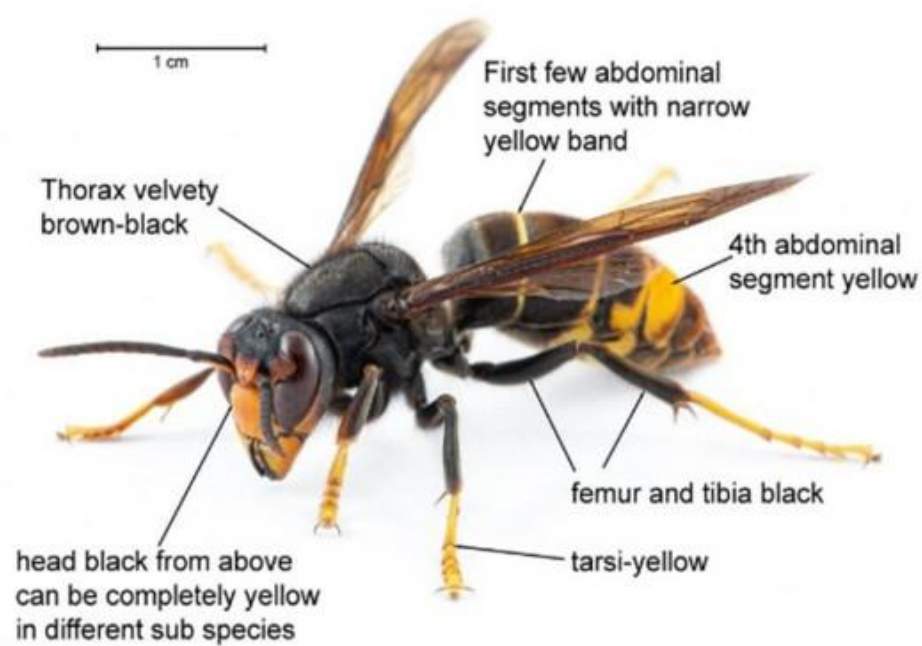


- Response started early November 2025.
- Only found in Auckland's North Shore.
- Public are reporting suspected hornet or nest sightings.
- DNA testing shows single queen origin.



Identification

The yellow-legged hornet has not been detected in New Zealand before



2

3

4

From left to right:

1. Yellow-legged hornet
2. German wasp
3. Asian paper wasp
4. Australian paper wasp



Risk to New Zealand

- Potential impact on honeybee and wild bee populations.
- Feeds mainly on bees, wasps, and flies - may compete with native insects and birds for food.
- Can impact ripe fruit - grapes
- Painful sting.
- Invasive pest species in parts of Europe and southern USA.

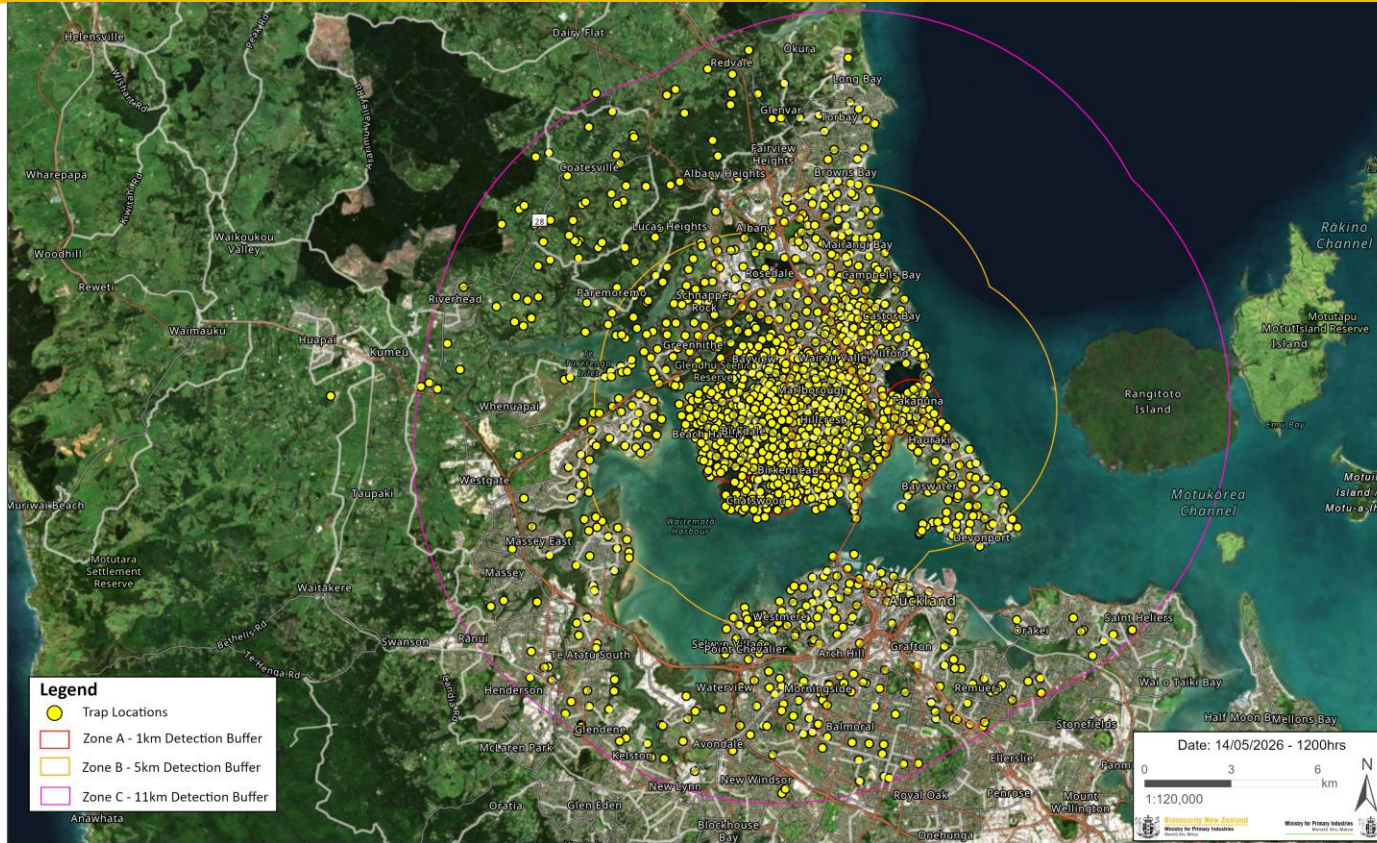


Current Situation

- **4646** Confirmed hornet specimens
- **77** queens, **63** of these associated with nests
- **3479** workers found associated with nests
- **1090** males
- **132** Nests
- **Over 17,500** public enquiries
- A nest has not been detected in the field since 25 March, and a hornet has not been detected in a trap since 2 April.



Trap Locations



Field Operations



1. Hornet on protective hornet gloves
2. First use of 22m pole
3. Arborist descending after nest removal



Identification - Nests



A queen yellow-legged hornet develops an **embryo nest**.
Photo credit: John de Carteret – Jersey



A more developed yellow-legged hornet **primary nest**.



A **small secondary nest** after removal from Glenfield to the lab for dissection.

Larvae Identification



Technology – Radio Trackers

- Radio trackers now a core tool for locating yellow-legged hornet nests
- Small transmitters are attached to worker hornets and tracked back to nests
- Nests are typically located within a few hours once a hornet is tagged
- Particularly effective for finding secondary nests high in trees

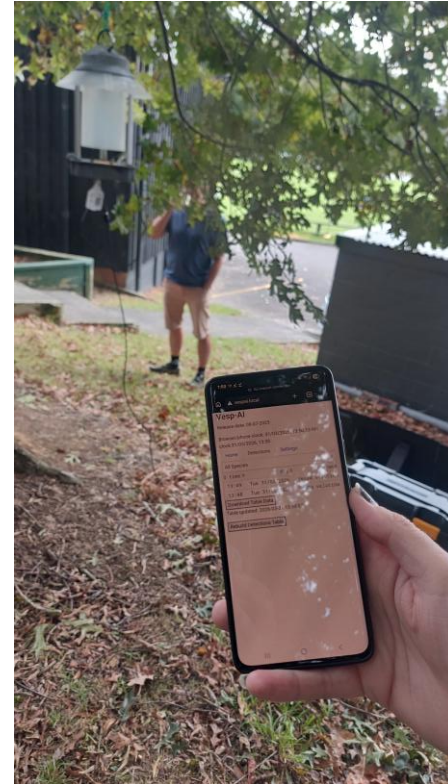


Technology - VespAI

- The University of Exeter in the UK, have developed software that can identify and photograph yellow legged hornets at feeding stations.
- The software is deployed via a small computer (Raspberry Pi) and connected to a Camera in 3D printed feeding station.
- The first Vespa Ai camera has been assembled at FHQ for testing before deployment.



Photographs showing a picture of Vespa Velutina in the VespAI, leading to detection on the app



Nest Detection Technology using Thermal Drone



Various Nest Locations



Vespex[®] Overview

- **Vespex[®]** is a protein-based bait containing fipronil, used to eliminate entire wasp and hornet colonies without locating nests.
- Worker hornets collect bait and return it to the nest, sharing it among nest-mates and the queen.
- We are using as a “**safety net**” or “mop-up” in the event that undetected nests remain within the affected area
- Bait is placed in bait stations in areas where we have gaps in our current surveillance.



Vespex Deployment Location Map

Total Grids
5208
Zone C

Total Grids
3264
Zone B

Total Grids
1662
Zone A

Zone C Deployed

Zone B Deployed

Zone A Deployed



Zone C Completed

Zone B Completed

Zone A Completed



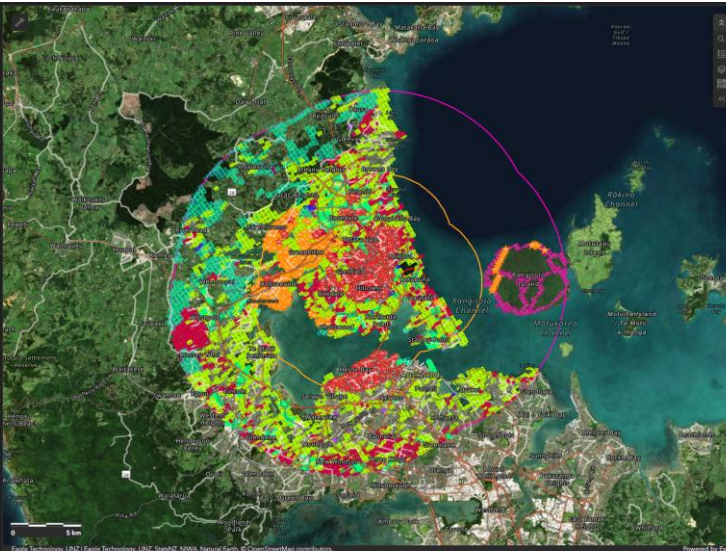
Zone A Redeployed

Zone A Redeployed & Completed

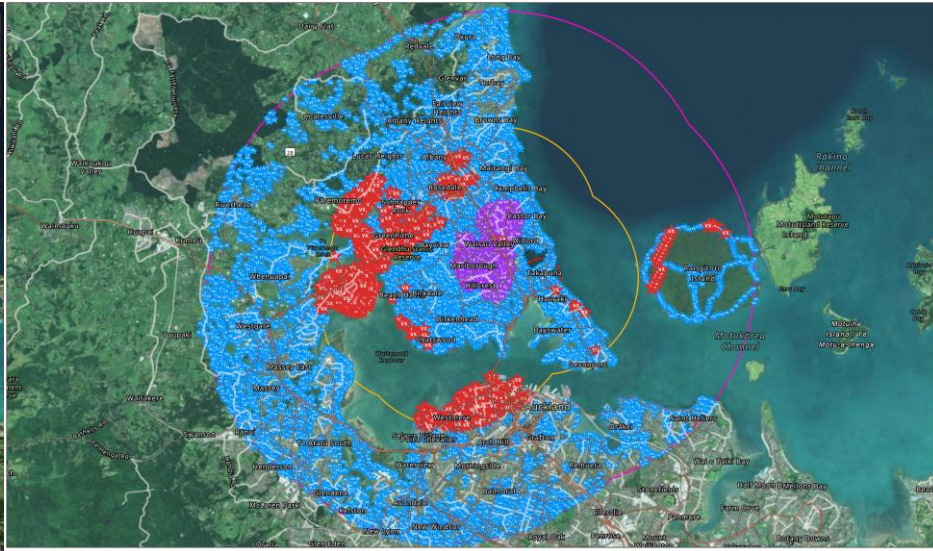


Vespex Stations Due for Collection

- VX4F264 - Date Deployed: 17/4/26, 8:52 am Rangitoto island
- VX-8E34C - Date Deployed: 17/4/26, 10:26 am Rangitoto island
- VX4F26A - Date Deployed: 17/4/26, 10:58 am Rangitoto island
- VX-0B9CA - Date Deployed: 17/4/26, 11:16 am Rangitoto island
- VX-C33E8 - Date Deployed: 17/4/26, 12:07 pm Rangitoto island
- VX-0691D - Date Deployed: 17/4/26, 12:16 pm Rangitoto island
- VX44AS5 - Date Deployed: 22/4/26, 2:09 pm East point continental reserve
- VX-02A6B - Date Deployed: 24/4/26, 3:22 pm Duc Reactions Line
- VX-0F1D8 - Date Deployed: 24/4/26, 3:23 pm



Vespex Stations	Vespex Stations	Vespex Stations	Vespex Stations	Vespex Stations	Vespex Stations
102	492	48	8359	1403	9762
Deployed Today	Due for Collection	Collected Today	Total Collected	Currently Active	Total Deployed



Yellow-legged Hornet Auckland 2025 Vespex Deployment

Date: 13/05/2026
Produced by: Response GIS

Legend

- Zone A - 1km Detection Buffer
- Zone B - 5km Detection Buffer
- Zone C - 11km Detection Buffer
- Completed Vespex Station
- Active Vespex Station
- Redeployed Vespex Station

Scale: 0 5 10 km
1:120,000



Vespex Deployment



Continued Public Engagement

- **Nationwide campaign** - with strong focus on the North Shore, then wider Auckland and Northland
- **Roadside signs** around the North Shore
- Digital **billboards** and signs in key North Shore locations
- Print and Online **advertising**
- All digital advertising has generated over **140,000** active website users to date
- **Meetings with bee industry organisations**
- **Map on MPI website** showing zones and hornet detections



If you see a
yellow-legged hornet nest
report it to
Biosecurity New Zealand
report.mpi.govt.nz
0800 80 99 66

Don't attempt to control it yourself.



Information Sheets

Keep an eye out for yellow-legged hornets

Background

Yellow-legged hornets (*Vespa velutina*) have recently been sighted in the Auckland region.

This non-native pest hornet is not known to be present in New Zealand. Biosecurity New Zealand wants to hear from anyone who has seen this insect, to help us confirm there are no others in the area.

The threat

The yellow-legged hornet (Figure 1) has not been detected in New Zealand before, although it is found widely across Southeast Asia and has been introduced to Europe and USA. This hornet feeds both on insects (including honeybees) as well as tree sap and fruit.

What does the hornet look like?

The yellow-legged hornet is large, (2 cm to 3 cm long) with a black head and a yellow face, black thorax, and legs with black femur and tibia and yellow tarsi. Between the first and second abdominal segment is a narrow yellow band, and the fourth abdominal segment is yellow, with the remainder being black or dark brown. The wings are a smoky brown colour and not transparent like other common wasps.

Figure 1. Yellow-legged hornet.



Any potential finds of the yellow-legged hornet or its nest should be photographed, and reported online at report.mpi.govt.nz or to the Biosecurity New Zealand exotic pest and disease hotline 0800 80 99 66

- Hornets school activity sheet
- How to make a homemade hornet trap – Fact sheet
- Yellow-legged hornets – Fact sheet
- Help find yellow-legged hornets – Flyer
- Look out for hornets – Pamphlet (also translated into Simplified Chinese, Hindi, Korean).

Next Steps and Longer Term

- Goal continues to be eradication
- Trapping and nest tracing continues
- Vespex bait deployment continues
- UK experts and TAG supporting field operations with planning for next season's Operational Plan and Long Term Surveillance
- Ongoing public engagement
- Beekeepers engaged in surveillance and planning underway with Apiculture NZ, NZ Beekeeping Inc and NZ Bee Health



Nest pre and post treatment



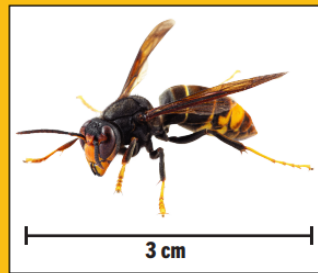
Biosecurity New Zealand

Ministry for Primary Industries
Manatū Ahu Matua

Look out for yellow-legged hornets

Report a suspected finding to
Biosecurity New Zealand

report.mpi.govt.nz | 0800 80 99 66



Biosecurity New Zealand

Ministry for Primary Industries
Manatū Ahu Matua

Te Kāwanatanga o Aotearoa
New Zealand Government

