

Asian Giant Hornet, *Vespa mandarinia* FAQ

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You may have seen recent news about the Asian giant hornet being found in the United States. This insect has recently been called the “murder hornet,” though that name **is not** used by scientists or beekeepers. To make sure you have the facts about this insect, the UF/IFAS Honey Bee Research and Extension Laboratory (HBREL) team has provided an overview about these hornets and addresses questions received about this novel pest and the risk to honey bees.

What is the hornet that is making the news?

There are several wasp and hornet species that can potentially pose a risk to honey bee colonies in the U.S. under certain circumstances. They include some native species, such as the baldfaced hornet and yellowjacket, and introduced species, such as the Asian giant hornet (*Vespa mandarinia*). Members of the HBREL team recently published two Featured Creatures articles on [Vespa mandarinia, Asian giant hornet](#) and the related species [Vespa velutina, the yellow-legged hornet](#). The latter hornet has spread to Europe where it can kill managed colonies of honey bees. The yellow-legged hornet is not present in the U.S. In contrast, the Asian giant hornet has been found in a small area in Washington State.

Asian giant hornet, *Vespa mandarinia*

The Asian giant hornet, *Vespa mandarinia*, is native to Japan and can be found in many other countries throughout Asia. The first colony discovered outside of Asia was found in British Columbia, Canada in September 2019. Its first known appearance in the U.S. was in fall of 2019 in Blaine, Washington. **To date, this hornet has not been found in the U.S. outside of its very limited distribution in Washington.** This hornet is typically 1.5-2 inches in length, has a large orange/yellow head with prominent eyes, black and yellow striped abdomen, and typically nests in the ground. These hornets have many prey items, including honey bees. The Asian giant hornet poses a potential threat to honey bee colonies by feeding on adult and immature honey bees as a protein source. They hunt adult honey bees at the hive entrance. They transport dead bees back to their nest where they feed them to their developing offspring. Many times, beekeepers will see the aftermath of the attack, and not the hornet itself. Managed honey bees in the U.S. pollinate many of the nation’s crops, thus playing a significant role in our agriculture and economy. **Note: Any human interaction with any stinging insect can result in a medical consequence. This is not unique to human interactions with Asian giant hornets.** Please visit our Featured Creatures publication on Asian giant hornets for more information on this topic:

http://entnemdept.ufl.edu/creatures/MISC/BEES/Vespa_mandarinia.html.



Figure 1. Adult *Vespa mandarinia*. Photo credit: Allan Smith-Pardo, Invasive Hornets, USDA APHIS PPQ



Figure 2. Adult *Vespa mandarinia*. Photo credit: Allan Smith-Pardo, Invasive Hornets, USDA APHIS PPQ

Yellow-legged hornet, *Vespa velutina*

The yellow-legged hornet, *Vespa velutina*, is native to Southeast Asia and has been found as an invasive species in many countries throughout Europe. It was first discovered in France in 2004. Although it has potential to be highly invasive, **the yellow-legged hornet has not been found anywhere in North America**. Reports from Europe have shown that the yellow-legged hornet has the potential to weaken up to 30% of honey bee colonies, with up to 5% of honey bee colonies being destroyed. Please visit our Featured Creatures publication on yellow-legged hornets for more information on this topic:

http://entnemdept.ufl.edu/creatures/MISC/BEES/Vespa_velutina.html.



Figure 3. Adult *Vespa velutina* (Lepeletier). Photo credit: Oliver Keller and Krystal Ashman, University of Florida



Figure 4. Adult *Vespa velutina* (Lepeletier). Photo credit: Oliver Keller and Krystal Ashman, University of Florida

How did *V. mandarinia* end up in the U.S.?

How the Asian giant hornet arrived in North America is unknown.

What is the likelihood that it will “wipe out” the honey bee population in the U.S.?

Regular monitoring and trapping efforts in Washington are currently underway in an effort to minimize the spread of the Asian giant hornet. It is likely that this hornet can be a threat to individual colonies, but unlikely that it would have a significant impact at the apiary level (an apiary is a collection of honey bee colonies). The Florida Department of Agriculture and Consumer Services has been working with other state’s Departments of Agriculture and the USDA to monitor for Asian giant hornets.

Can honey beekeepers protect their hives?

We do not currently recommend that beekeepers work to protect their hives from Asian giant hornets, given they have not been found in Florida. Concerned beekeepers in the area where the hornet is present in Washington can exclude this hornet from their hives using ½ inch screens placed on colony entrances.

Are there any ecological impacts from the Asian giant hornet?

This is currently unknown.

What should people do if they suspect they saw the Asian giant hornet in Florida?

Report your concerns to DPIHelpline@FDACS.gov with the location, photos, and description of what was seen. If you are not in Florida, contact [your state’s department of agriculture](#) and provide photos or samples *only if it is safe to collect*. We *do not recommend* approaching a nest of any social insect to collect samples. Please keep in mind that there are many insects that might be misidentified as Asian giant hornets. These include:

[European hornet, *Vespa crabro*](#)



Figure 5. European hornet, *Vespa crabro*. Photo credit: Steve Jacobs, PSU Entomology

Cicada Killer, Giant Ground Hornet



Figure 6. Adult *Sphecius hogardii* (Latreille), a cicada wasp. Photo credit: Division of Plant Industry



Figure 7. Adult *Sphecius speciosus* (Drury), a cicada killer wasp. Photo credit: Division of Plant Industry

Yellowjackets and hornets



Figure 8. Adult *Vespa squamosa* (Brury), a southern yellowjacket. Photo credit; Lyle J. Buss, University of Florida



Figure 9. Adult baldfaced hornet, *Dolichovespula maculate* (Linnaeus). Photo credit: James L. Castner, University of Florida

In Summary

- The Asian giant hornet has NOT been found in Florida, or anywhere in the U.S. outside of Washington.
- The Florida Department of Agriculture and Consumer Services is monitoring the situation, as it has for years.
- Hornets are generally not interested in humans, pets or large animals. They hunt insects for food, are not attracted by pollen or nectar, and only attack when threatened or if their nest is disturbed. ([Invasive Species Council of BC](#))
- The European hornet took 180 years to move from Pennsylvania to Florida. Eastern and Southern yellowjackets have always been in Florida and still cause some honey bee losses every year.
- The Asian giant hornet is a forest species and it is unlikely to migrate across the Great Basin, the Rockies, and the Great Plains on its own.
- If you have an insect that you would like identified, you can submit photo or specimen samples to the [Florida Department of Agriculture and Consumer Services](#)

General Recommendations

- If you notice a hornet/wasp nest on your property, and are concerned it will lead to a negative human or pet interaction, contact a licensed pest control operator.
- Any individual allergic to stings should avoid contact with any stinging insect.

Additional Resources

USDA New Pest Response Guidelines for the Asian giant hornet:

[https://cms.agr.wa.gov/WSDAKentico/Documents/PP/PestProgram/Vespa_mandarinia_NPRG_10Feb2020-\(002\).pdf](https://cms.agr.wa.gov/WSDAKentico/Documents/PP/PestProgram/Vespa_mandarinia_NPRG_10Feb2020-(002).pdf)

European Hornet, *Vespa crabro*: <https://www.insectidentification.org/insect-description.asp?identification=European-Hornet>

For more information, please contact honeybee@ifas.ufl.edu