

Wisconsin Apiary Program

Pest Alert

Northern Giant Hornet



Photo credit: Washington State Department of Agriculture

Status: Not currently found in Wisconsin

Where has it been detected?

In September 2019, a northern giant hornet (NGH) colony, native to Asia, was detected and destroyed in British Columbia, Canada. An NGH adult was later detected in Blaine, Washington in December 2019; one colony was detected and destroyed in Washington in 2020; and three additional colonies were detected and destroyed in that same state in 2021. NGH is on track to being declared eradicated from both countries by the end of 2024, once three years pass without additional confirmed detections. NGH has not been detected in Wisconsin or anywhere else in North America.

What do beekeepers need to know?

NGH does not generally attack people or pets, unless provoked or their nest is threatened. They can, however, attack and destroy honey bee hives. A group of 30 hornets can destroy an entire hive of 30,000 bees in less than four hours. The hornets enter a slaughter phase where they kill bees by decapitating them. They then defend the hive as their own, taking the brood to feed their own young. They also attack other insects but are not known to destroy entire populations of those insects.

If NGH is accidentally introduced into Wisconsin, this hornet will have negative impacts on the honey bee industry, environment, economy, and public health.

What does it look like?

NGH is the world's largest hornet. There are several subspecies of this hornet. They all have a wingspan of about three inches and a body length of about two inches. They have a large, yellow-orange head and a black and yellow striped abdomen (see image on page 2). This hornet can fly up to 25 mph and up to 60 miles a day. Once established, they tend to fly about one mile from their nest, which is usually in the ground.

The only insect in Wisconsin that is likely to be mistaken for NGH is the cicada killer wasp - a solitary wasp that can grow almost as large as the NGH. As the name

implies, this native wasp feeds on cicadas and is relatively harmless to humans. There are many other smaller species of native hornets and wasps (see page 2) that serve beneficial purposes as predators of garden pests and other unwanted insects. If they are not infringing on human activities, it is best to leave these insects alone, as they are not expected to survive Wisconsin winters.

How can I protect myself?

Use extreme caution near NGH. The stinger of an NGH is longer than that of a honey bee yet the venom is more toxic than any local bee, hornet, or wasp. Typical beekeeping protective clothing is not sufficient to protect you from stings. If you find a colony, do not attempt to remove or eradicate it, but report it to the Wisconsin Department of Agriculture, Trade and Consumer Protection (DATCP) immediately. Anyone who is allergic to bee, hornet or wasp venom should never approach an NGH.

What should I do if I think I see one?

If you see an insect that looks like NGH, do the following:

- Do **not** approach the insect. Many insects look very similar to each other (see page 2), but caution is still necessary. Watch from a safe distance.
- Take a picture if you can do so safely. Email pictures to datcppesthotline@wi.gov.
- If you find a dead insect which you believe may be NGH, place the dead insect in a small container with alcohol and contact DATCP for more details.

You can help find and report any invasive pest by doing any of the following:

- Call the toll-free pest hotline at (866) 440-7523
- Email datcppesthotline@wi.gov

A clear photo or two of your sighting, the exact location, and your contact information are needed to verify NGH reports.

Comparing NGH to Other Hornets, Wasps, and Bees

Images courtesy of Washington State Department of Agriculture

4 cm



Vespa mandarinia
Northern giant hornet



Sphecius speciosus
Eastern cicada killer wasp
Photo credit: Whitney Cranshaw,
Colorado State University, Bugwood.org



Dolichovespula maculata
Bald-faced hornet



Vespa crabro
European hornet



Apis mellifera
European honey bee

