



ASIAN GIANT HORNET STAKEHOLDER UPDATE #18 – MARCH 16, 2021

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VIRTUAL PRESS CONFERENCE MARCH 17

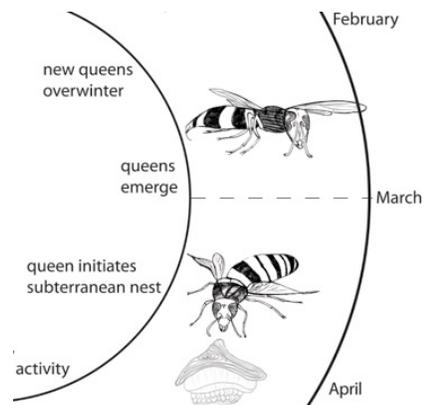
The Washington State Department of Agriculture, British Columbia Ministry of Agriculture, U.S. Department of Agriculture are holding a joint virtual press conference regarding 2021 Asian giant hornet plans. Agencies will provide information on their planned 2021 Asian giant hornet activities and/or be available for questions from the media. Read the [news release](#) for more information.

ASIAN GIANT HORNET LIFE CYCLE

In their native range, all Asian giant hornet colonies follow a specific life cycle.

Both mated and unmated queens will disperse to overwinter, finding a sheltered area or place in the soil. Males and workers will die in the winter.

As spring approaches, the overwintering queens will soon begin to emerge and attempt to found a nest. Unmated queens will not establish functioning nests.



APIARY REGISTRATION

Remember to register all honey bee hives by April 1. Beekeepers, backyard or commercial, need to register hives yearly. All money collected helps fund honey bee research projects with the Washington State University and other entities. Registered beekeepers in compliance with the law are also protected from civil liability connected to keeping honey bees.

[Apiary registration forms](#) can be submitted by mail to: WSDA, PO Box 42591, Olympia, WA 98504-2560. If you have other questions regarding registering hives, visit the [apiary registration webpage](#) or email PestProgram@agr.wa.gov.

NEW DETECTIONS – REPORT SUSPECTED SIGHTINGS



There have been no new confirmed sightings of Asian giant hornets reported to WSDA in 2021.

As spring approaches, new queens will begin to emerge and shortly thereafter initiate a new nest.

It is still important to be on the lookout: dead or alive AGH reports are helpful. Any confirmed report can provide detection points to help guide trapping efforts, and collected hornets can aid in future research. If you think you have seen an Asian giant hornet, visit WSDA's hornet webpage to report it online, via email at hornets@agr.wa.gov, or call 1-800-443-6684. Include a photo if you can safely obtain one.

'ATTACK OF THE MURDER HORNETS' DOCUMENTARY

A Discovery film crew followed WSDA for six weeks during the 2020 field season. The documentary, titled *Attack of the Murder Hornets*, launched on Discovery+ February 20. This movie focuses on efforts WSDA, beekeepers, and citizens made to work together to protect Washington from the threat of the Asian giant hornet. Check out [WSDA's press release](#) about the documentary.



UPDATE FROM CANADA

British Columbia has no additional confirmed detections of Asian giant hornet. They continue to encourage reporting and will continue to trap for Asian giant hornets during the 2021 season.

WSDA 2020 OUTREACH

WSDA worked hard behind the scenes to get information out to the public. Check out the [last page](#) of this update to see some of the things accomplished in 2020.

ADDRESSING THE EASTERN HONEY BEE'S DEFENSE

In 2020, a research article was published regarding honey bees appearing to use animal dung or other naturally-occurring substances to help protect their hives from hornet attacks. The species that performs this behavior is *Apis cerana*, also known as the Eastern honey bee. However, beekeepers in the United States and Canada house *Apis mellifera*, or the European honey bee.



(left) European honey bee | (right) Asian giant hornet
photo credit : USDA

Prior to Asian giant hornet entering a honey bee hive, they mark the hive with a pheromone to alert other hornets. Japanese researchers observed Eastern honey bees collecting and smearing plant resins on their hives in the fall (Fujiwara et al. 2016). Japanese researchers simulated hive attacks to see if the Eastern honey bees responded to various hornets. Honey bees only smeared resin during the encounter of AGH (Fujiwara et al. 2018). Some beekeepers stated the smeared material was animal dung. Matilla et al (2020) reported several experiments demonstrating that dung smearing is likely a defensive adaptation that interrupts hornet attacks.

What does this mean for honey bees in the US and Canada? Unfortunately, the researchers in Vietnam did not observe *Apis mellifera* - “our” honey bee - exhibiting those behaviors. However research would be required to conclude if humans could mimic this defense mechanism to help protect hives from AGH predation, and evaluate the following health of the colony.

Fujiwara A, Sasaki M, Washitani I (2016) A scientific note on hive entrance smearing in Japanese *Apis cerana* induced by pre-mass attack scouting by the Asian giant hornet *Vespa mandarinia*. *Apidologie*. 47: 789–791. <https://doi.org/10.1007/s13592-016-0432-z>

Fujiwara A, Sasaki M, Washitani I (2018) First report on the emergency dance of *Apis cerana japonica*, which induces odorous plant material collection in response to *Vespa mandarinia japonica* scouting. *Entomological Science*. 21: 93–96. <https://doi.org/10.1111/ens.12285>

Mattila HR, Otis GW, Nguyen LTP, Pham HD, Knight OM, Phan NT (2020) Honey bees (*Apis cerana*) use animal feces as a tool to defend colonies against group attack by giant hornets (*Vespa soror*). *PLoS ONE* 15(12): e0242668. <https://doi.org/10.1371/journal.pone.0242668>

STAY CONNECTED

WSDA is dedicated to working with the public to provide information on Asian giant hornets. WSDA continues to provide informational webinars to beekeeping associations, gardening clubs, libraries and museums, sovereign nations, and many other stakeholders. Contact hornets@agr.wa.gov if your organization is interested in a presentation to learn more about Asian giant hornets.

- View [past news releases, blogs, and Pest Program updates](#) about Asian giant hornet.
- Join the [Asian giant hornet Facebook group](#).
- Join the [Pest Program email listserv](#).
- Follow WSDA on [Facebook](#), [Instagram](#), [YouTube](#), and [Twitter](#).



Washington
State Department of
Agriculture

2020 ASIAN GIANT HORNET OUTREACH OVERVIEW



ACTUAL SIZE

ASIAN GIANT HORNET

- World's largest hornet
- Usually 1.5 - 2 inches in length
- Large orange/yellow head with prominent eyes
- Black and orange/yellow striped abdomen
- Forms large colonies that usually nest in the ground

Ceros
Trendiest
Shades
of 2020
#FE9B29

Murder Hornet
Amber

agr.wa.gov/hornets ●●●

Hornets webpage had over

317,000

views in 2020

68 Facebook posts 12/19/2019 - 01/06/21

4,632,591

 total views

205,047

views of 9
blog posts

>95

presentations

1,034,837

engagements on
Facebook

7 podcasts

>6,900

Asian giant
hornet watch
Facebook group
members

5

radio ads ran
for a total of
6 weeks

429,500

views of 17 videos
produced by WSDA

17

stakeholders
updates

- 6 virtual press conferences
- 300 media contacts
- 6 press releases, 1 joint with WISC
- 3 documentaries - TVW, PBS News Hour, Discovery Channel

Electronic billboard display on I-5 for



12 weeks with
7 rotating graphics
2,414,915 impressions

#ThatIsNotAnAsianGiantHornet campaign contrasted 9 commonly mistaken species and reached over **471,400 people** on Facebook alone Aug. 5 - Oct. 15

"Track Don't Whack" campaign reached over **70,000 people**

In May 2020, the Asian giant hornet story reached over **1 billion people**

7 Graphics
21 Publications

1,227 Public bottle traps

325 Cooperator traps

9 drop off locations for traps

ASIAN GIANT HORNET DETECTIONS

16 PUBLIC **31** TOTAL

1

ERADICATION