

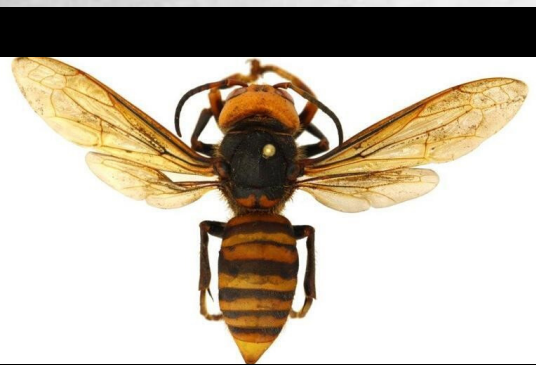
# Let's Get the Straight Facts about Asian Giant Hornet

Asian Giant Hornet (aka the Murder Hornet aka *Vespa mandarinia*) has been all over the news lately. Many people, suddenly aware of it, believe they have seen one. While not impossible, the odds, at this point in time are very slim. Most AGH reports, once investigated, turn out to be a case of mistaken identity where a native insect that looks somewhat similar to AGH has been confused with the potential pest of concern.

**What is it?** AGH is one of the largest species of hornets in the world. It is a social wasp (builds a nest containing up to several hundred individuals) and is related to our locally encountered yellowjackets and paper wasps which may behave similarly.

**Where is it found?** Many are found in Asia, where it is native and a natural part of the ecosystem. It is routinely observed in Japan and Korea, but also lives in parts of China, Russia, Taiwan, Laos, Cambodia, Thailand, Myanmar, Vietnam, Nepal, India and Sri Lanka. Even though recent attention may lead one to believe many have been encountered in North America, to date only a total of 4 reports have been confirmed – all just last year in 2019: this includes a single specimen in White Rock and one nest (which was destroyed) in Nanaimo, British Columbia, Canada (in Sept) and two individual hornets in Blaine, Washington, USA (in Dec).

**What does it look like?** It is large (1.5-2 inches long). Bright yellow, smooth head with large black eyes. Thorax solid black with two yellow crescents. Abdomen with alternating rings of solid black and solid yellow (no spots or blotches of color can be seen within the color bands).



Photos courtesy of Washington State Dept of Agriculture, Bugwood.org

**What is its typical behavior?** Solitary queens hibernate in protected areas throughout the winter. During April/May they come out to feed (usually on carbohydrates like tree sap) and to locate a nest site. They prefer to nest in low mountain foothills and lowland forests usually in abandoned rodent burrows, often associated with rotting pine roots. Nests are underground – if you think you are seeing them in a nest in a tree, on a building, etc. you are not seeing AGH. A queen rears the original batch of workers who, by July take over nest construction, brood-rearing, food collection and colony defense. Foraging is mostly done by individual hornets until late summer/early fall when they begin hunting in “packs” to attack honey bee hives which, once subdued, are a good food source for new AGH queens and males that are being produced. AGH are typically not very aggressive unless they feel threatened. This might occur if you are near the entrance to their nest or near a bee hive they are attacking or have conquered – while they are in their bee-slaughter “frenzy”.

**What is the danger associated with AGH?** If feeling threatened, they can use their large stinger to administer a powerful venom. The sting is very painful and may cause skin necrosis. Each hornet can sting multiple times and they will work together to fight a perceived enemy. Multiple stings can lead to organ failure. Mass hornet attacks are very rare (even in countries where they are native), but can occur and in extreme cases they can cripple or kill their victims.

**What is being done to deal with AGH?** Remember that, at this point in time, less than a half dozen AGH reports have ever been confirmed in North America (only 2 in the US). However, most Dept of Ag offices, Extension offices and similar organizations are fielding calls and evaluating photographs and specimens from people who believe they may have encountered AGH to determine whether or not they've mistaken a native insect for AGH or uncovered evidence of a potential newly-discovered AGH population. Trapping programs to possibly attract and detect AGH are being set up in some locations where people are concerned and resources for a trapping program are available.

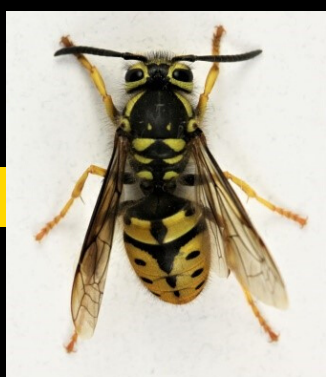


**What can you mistake for an AGH?** A number of native insects can grow large enough (1.5- 2 inches) and appear similar enough to the untrained eye to be confused with AGH.

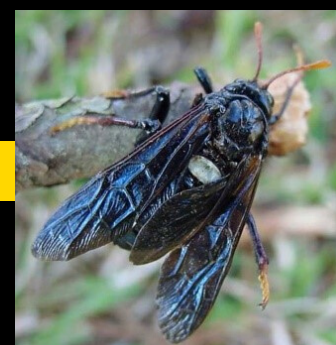
## Native Species Include:



**Western Cicada Killer Wasp:** Red-orange head (not yellow). Yellow blotches on abdomen (not solid bands) contain red spots. Photos By ISDA



**Native Yellowjackets:** Black markings on yellow face. Abdomen black with yellow spots or vice versa (not solid bands) Photos By ISDA



### Bald-faced Hornet

Johnny N. Dell, Bugwood.org

### Hornet Wasp

Whitney Granshaw, Colorado State Univ, Bugwood.org

### Sawfly Wasp

Herbert A. "Joe" Passe III, Texas A&M Forest Service, Bugwood.org

**What can you do to help?** Be on the lookout. Review the information in this fact sheet multiple times to understand what physical and behavioral characteristics would indicate you are seeing AGH and, maybe more importantly, some of the physical and behavioral characteristics that would rule out AGH and point towards it being something native that is part of our local ecosystem. If you are convinced you are seeing an AGH, if possible (without making it feel threatened) attempt to obtain a clear photo (especially head and abdomen) to submit to ISDA (along with date and location) for verification and possible follow-up. If you see multiple individuals around an opening in the ground do not provoke them (a good plan when dealing with any ground-nesting hornets). Leaving and reporting the location to ISDA would be the prudent thing to do - especially if you know or suspect you may be allergic to bee/wasp venom.

If you believe you have encountered AGH in Idaho and have been able to obtain a clear photo (or a dead specimen) please contact the Idaho State Department of Agriculture (phone 208-332-8620 or e-mail [info@ISDA.IDAHO.GOV](mailto:info@ISDA.IDAHO.GOV)) for instructions on how to submit the photo or specimen for evaluation.