

Yellow-legged hornet, *Vespa velutina*

Keith Delaplane, William Hudson, Allison Johnson
Department of Entomology, UGA

On Tuesday, August 15, 2023, Georgia Commissioner of Agriculture Tyler Harper will announce the first detection of the **yellow-legged hornet** (YLH), *Vespa velutina*, in North America. This factsheet will give you the basic discussion points.

1. The specimen was reported by a beekeeper August 9th from near the port of Savannah.
2. This hornet is not to be confused with the Asian (now “Northern”) giant hornet discovered in the Northwestern USA in 2020 and which has so far not been found outside that region.
3. Like all stinging wasps and bees, YLH poses a sting risk to persons and pets, especially for persons who suffer from allergic anaphylaxis. Even so, in its native China YLH was responsible for only 54 human deaths in two years¹. The US averages 72 deaths per year from all stinging insects². This is not a major health threat to Georgians.
4. YLH is primarily a threat to Georgia’s beekeeping industry. The hornet is a voracious predator of honey bees. Even if it fails to kill a colony, its threatening behavior at hive entrances can intimidate bees from foraging and cause the colony to decline.
5. Georgia consistently ranks within the top 20 states for honey production and the top 2-3 for production of package bees and queens.
6. The annual contribution of honey bees and other biotic pollinators to Georgia’s ag economy is over \$480 million³.
7. UGA scientists and GDA are consulting with colleagues in Washington state and Europe to draw on their experience and formulate a plan for eradication, surveillance, and management.
8. YLH has been present in western Europe since 2004. UGA scientists are cooperating with colleagues in Europe to fast-track a response for Georgia.
9. As information becomes available, Georgians will have the chance to report suspect specimens to websites maintained by GDA and the Center for Invasive Species and Ecosystem Health at UGA Tifton Campus.
10. The accompanying graphic shows key diagnostic characters for the yellow-legged hornet and some native lookalikes.
11. Beekeeper-oriented information will be soon available at <https://bees.caes.uga.edu>.

¹ Xie C, Xu S, Ding F, et al. PLoS One. 2013;8:e83164

² National Center for Health Statistics, National Vital Statistics System, Mortality Data, 2011–2021. <https://wonder.cdc.gov/Deaths-by-Underlying-Cause.html>

³ Pless et al. 2021. J. Agric. Appl. Econ. 53: 322

4 Identifying Characteristics of the Yellow-legged Hornet (YLH)

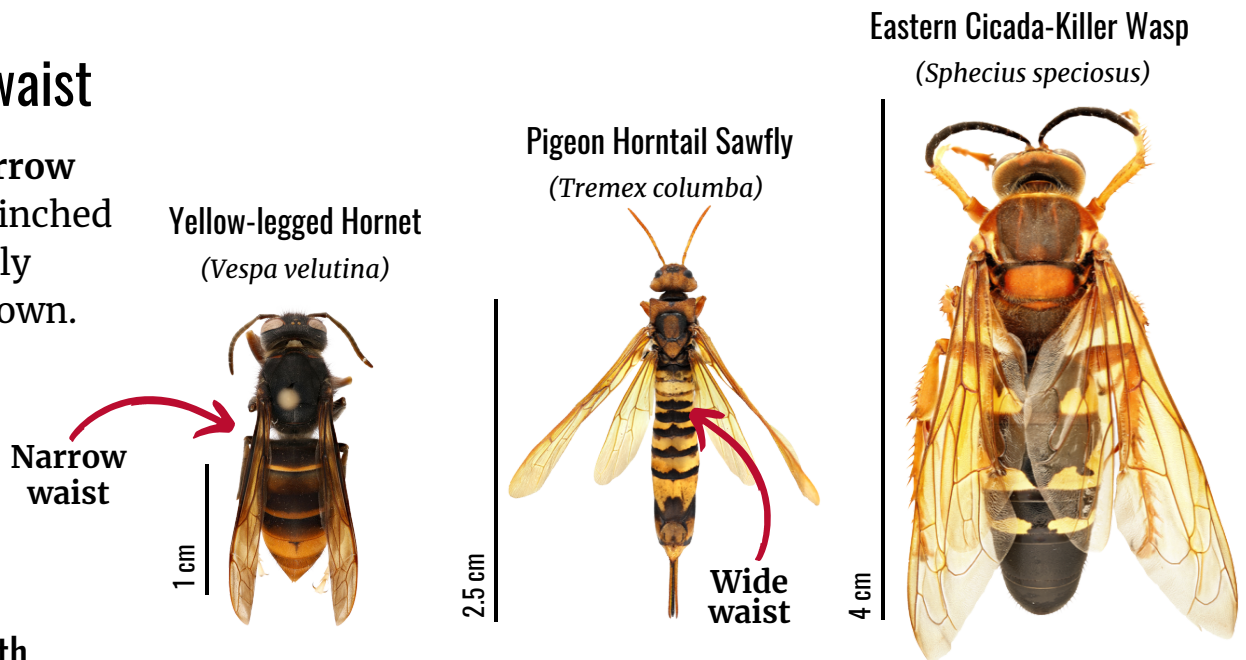
(Vespa velutina)

1. Size

Adults are about 2 cm long. Comparison of common look-alikes found in Georgia are shown.

2. Narrow waist

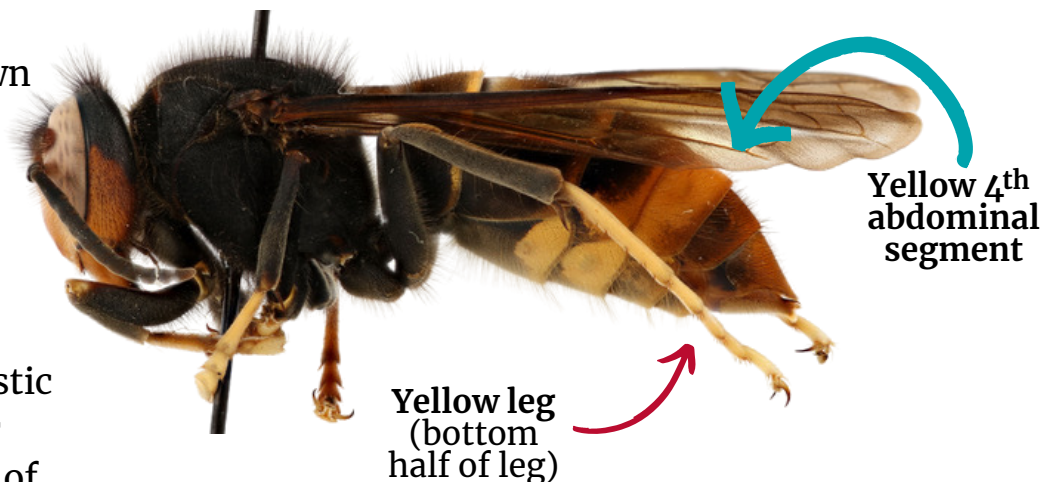
Look for a **narrow waist**, more cinched than the sawfly look-alike shown.



3. Yellow 4th abdominal segment

Look for a **strong yellow stripe** on the **fourth abdominal segment** shown here with arrow.

Yellow-legged Hornet (side-view)
(Vespa velutina)



4. Yellow legs (bottom half)

The namesake characteristic of YLH is the **yellow color** found on the **bottom half** of the insect's legs.

