

Beneficial Species Profile



Photo credit: Photo by Whitney Cranshaw, Colorado State University, Bugwood.org

Common Name: Aphid wasp

Scientific Name: *Pemphredon spp.*

Order and Family: Order Hymenoptera and family Crabronidae

Size and Appearance:

	Length (mm)	Appearance
Egg	Unknown	Unknown
Larva/Nymph	8.3±1.9 mm	Yellow or white or orange Smooth body
Adult	6.35 mm	Black
Pupa (if applicable) (Prepupa)	1 cm	Green/orange with ridges

Type of feeder (Chewing, sucking, etc.): Pemphredon wasps are hunting wasps that use aphids as their prey to feed their larvae. The female wasp chews and excavates chambers in the stem of pithy plants. She builds these cells one on top of another. Once the cells are built, the female wasp grabs and paralyzes (through a sting) aphids and returns them to the chamber nest. The female wasp continues to do this until there is enough food (approximately 24 aphids) in the cell. She then lays an egg on the aphids and seals the pith with the chewed stem she created from making the cell to protect the egg.

Host/s: Pithy plants such ash, elder, sumac, rose and cane berries. Aphids are captured and paralyzed as a food source.

Description of Benefits (predator, parasitoid, pollinator, etc.): As a predator of aphids on these plants, they are considered beneficial parasitoids, but the chambers or reed galls they create to rear their young can be aesthetically damaging. Other insects have been found in the chambers including parasites and other hunting wasps that may utilize the chambers the female Pemphredon wasps create for rearing their own young (kleptoparasites).

References:

Astapenková, A., Heneberg, P., & Bogusch, P. (2017). Larvae and Nests of Aculeate Hymenoptera (Hymenoptera: Aculeata) Nesting in Reed Galls Induced by *Lipara* spp. (Diptera: Chloropidae) with a Review of Species Recorded. Part II. *Plos One*, *12*(1). doi: 10.1371/journal.pone.0169592

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