

Tarantula Hawk Wasp

Spider wasp,

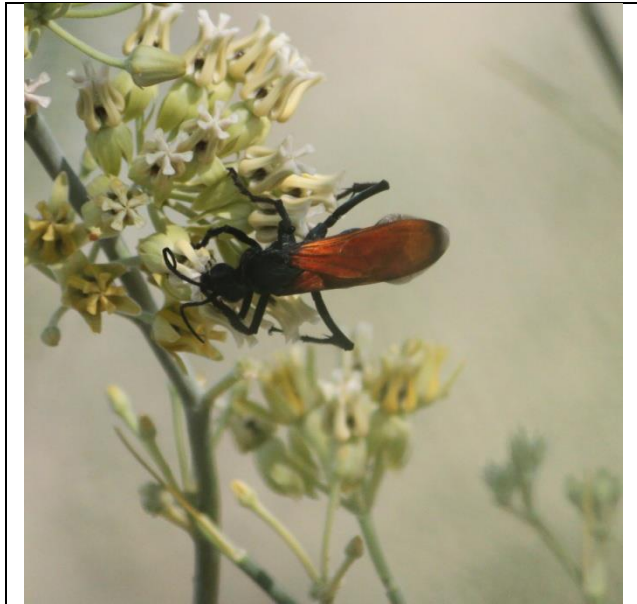
Pepsis & Hemipepsis

Pepsis ferrosa & thisbe are common species in U.S. Southwest

**indistinguishable in the field, so both names listed here*

Family: Pompilidae

Description: This large wasp grows up to 2-inches in length. The body color ranges from blue to black. Wing color in our area is golden or rust, but in others can range from blue-black to mahogany, which dissuades predators through a process called **aposematic coloring**. Hooked claws at the end of the legs allow them to attach to plants and their prey, tarantula spiders. Females have a stinger up to 7 mm long. Some species have orange antenna.



Lifecycle: Adult males will stake out territory on a raised area. This is called “hill-topping.” He will defend that space and solicit passing females. After mating, the female will seek out a tarantula. They tend to hunt females which are larger than males and live in burrows. The wasp will provoke the tarantula to rise up in self-defense at which point its abdomen is exposed. Another tactic is to flip the tarantula over, also exposing the abdomen. The wasp will attach and sting the abdomen causing almost immediate paralysis. She will then drag the spider to a previously prepared burrow and lay a single egg in the abdomen of a paralyzed tarantula. The larvae will hatch and feed on the tissue of the tarantula, avoiding the vital organs in order to keep the food source alive. When the larvae matures, it will emerge from the spider as a fully formed adult and continue the lifecycle.

Cultural information/Uses/Human Interaction: These wasps are generally non-aggressive, except when hunting.

*The sting is extremely painful and rated near the top of the *Schmidt Sting Pain Index*, second only to the bullet ant. It's described by Schmidt as “blinding, fierce [and] shockingly electric.” It's excruciating and lasts for about 3 minutes.

Researcher quote from Richard Conniff: “... immediate, excruciating pain that simply shuts down one's ability to do anything, except perhaps, scream. Mental discipline simply does not work in these situations.”

Distribution/Range: Several species exist from southern North America down through Argentina.

Habitat: Reside in ranges that are inhabited by tarantula, which includes dry, warm climates. They also inhabit rainforests and are most active in summer, but are less active during hottest times of the day.

Plants: Prefers desert milkweed and mesquite. It can be attracted to fermented fruit which can cause intoxication and interfere with flight.

Disease/Pathology: X

Status: 250 species have been recorded throughout their range.

Resources:

University of Texas, El Paso

Iowa State Department of Entomology

Oh Sting Where Is Thy Death, Richard Conniff

Archives of Insect Biochemistry and Physiology, J. O. Schmidt, M.S. Blum, and W.L. Overal