

## Colorado Insect of Interest

# Wasp Mantidfly

**Scientific Name:** *Climaciella brunnea* (Say)

**Order:** Neuroptera (Lacewings, Antlions, Snakeflies, Dobsonflies and Relatives)

**Family:** Mantispidae (Mantidflies)



**Figure 1.** Wasp mantidfly female

**Identification and Descriptive Features:** The wasp mantidfly is a strong mimic of some of the native paper wasps (*Polistes* spp.). The body is of similar size, generally of the same brown coloration with yellow band markings, and the wings are dusky. However, it is readily distinguishable by the narrow prothorax and grasping forelegs, reminiscent of a mantid.



**Figure 2.** Wasp mantidfly feeding on blow fly (right). There are two *Polistes* wasps on the upper left, the species that the wasp mantidfly mimics.

of eggs on leaves, often in long rows. The first stage larvae that hatch remain on the leaves and wait for a passing spider, to which they readily attach.

Large wolf spiders are the most common hosts for mantidfly larvae, which may feed a bit on the blood of the spider during the first instar. However, further development occurs upon the spider's eggs. When eggs are laid the mantidfly larva migrates to the eggs before the egg sac is covered with silk. They then feed on the eggs, sucking the contents with a specialized mouthpart. A single mantidfly develops within an egg sac. The entire life cycle takes a year to complete.

### **Distribution in Colorado:**

Although uncommon, the wasp mantidfly is widely distributed in the state, having been recovered from several areas of eastern Colorado as well as the West Slope counties along the Utah border. It likely can be found where ever the large wolf spider hosts of the larvae occur.

### **Life History and Habits:**

Wasp mantidfly adults emerge in late spring and fly to trees and shrubs where they feed on small insects and drink plant ooze. After mating, the females lay hundreds



**Figure 3.** Female (left) and male *Mantispa sayi*. (From pinned specimens)

**Related Species:** At least three other species of mantispids are known from Colorado.

*Dicromantispa sayi* (Banks) and *D. interrupta* (Say) occur in eastern Colorado; *Leptomantispa pulchella* (Banks) is a western Colorado species.

Two other species are thought likely to be present in western Colorado since they are known from adjacent areas of Utah (*Xeromantispa scabrosa* (Banks)) and Arizona (*Plega datylota* Rehn).



**Figure 4.** *Plega daytlota*, a mantidfly that may be present in SW Colorado. (From pinned specimen)