

# Common Locoweed-Feeding Insects

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## *What is that insect feeding on my locoweed?*

A variety of insects are associated with both white and woolly locoweed. Many of these insects are incidental, only visiting the plants to collect nectar or to find a protected place to stay for awhile. I receive many calls from people who want to know the identification of insects found “feeding” on their locoweed. The following are pictures and basic descriptions of the most important insects attacking locoweeds in New Mexico.

**Four-lined locoweed weevil** (*Cleonidius trivittatus*) is the most important insect to attack woolly locoweed. The adults (fig. 1a) are grayish to brownish and about 1/2 to 1 inch long with 4 dark stripes down their backs. They feed on the leaves and stems of locoweed; however, the immature larvae cause most of the damage. Larvae (fig. 1b) are 1/8 to 3/4 inch long, legless, cream colored, “C” shaped with a brown head and jaws. They can be found feeding on the outside or inside of the root of woolly locoweed. Weevil larvae construct a chamber inside the root or in the soil adjacent to the root in which they pupate (fig. 1c). Adults lay individual, bright yellow eggs (fig. 1d) in the late fall through early spring, that are commonly covered with chewed locoweed leaves. Feeding by two weevil larvae killed most sizes of woolly locoweed in our research plots.

**Locoweed root-borer moth** (*Walshia miscolorella*) commonly attacks both white and woolly locoweed. Adult moths (fig. 2a) are small, only about 1/2 inch long, “cigar-shaped” with long, narrow wings that have bands of white, black, dark brown, yellowish brown and reddish brown. Moths can be seen flying around the plants at dusk or when the plants are disturbed. The larvae (fig. 2b) have six legs near the head and several pairs of short, stubby legs (called prolegs) toward the rear of the caterpillar. They are white with a light-brown head. A dark spot is usually visible just beyond the middle of the abdomen when looking down on the top of the caterpillar. We have recorded as many as 25 larvae feeding on one plant, resulting in serious damage to woolly locoweed. Unfortunately, white locoweed branches just above the crown, and the caterpillars will kill individual branches. However, they rarely kill a whole plant.

**Locoweed stem-boring fly** (*Delia [Hylemya] lunini*) feeds on both white and woolly locoweed. The adults (fig. 3) are small (1/4 to 3/8 inch long) flies that have yellow heads and yellow stripes on the sides. The larvae or maggots are pure white with no apparent head or legs. The maggots bore into the leaflet and flower stalks, feeding inside of them as they expand. Occasionally, we find plants where almost every stalk is attacked; however, little damage other than a small decrease in seed production results.

**Sitona weevil** (*Sitona californicus*) is found feeding on woolly locoweed. Adults (fig. 4a) are usually solid tan or gray and are about 3/8 inch long with a distinctive “snout.” They feed at night on the leaflets and newly developing stems. The larvae, which look just like little four-lined locoweed weevil larvae, feed on the outside of the tap root and lateral roots. Sitona weevils feed much further down on the roots than the other weevil and commonly spiral around the root as they feed (fig. 4b). These weevils are commonly associated with plants attacked

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by the four-lined locoweed weevil, and they have not been found feeding on any other plants.

**Lycaenids** (Lycaenidae) are small butterflies. As caterpillars, they feed on both white and woolly locoweed. We have recorded the Melissa blue (*Lycaeides melissa melissa*) feeding on white and woolly locoweed, and the Acmon blue (*Icaricia acmon*) feeding on woolly locoweed. While other species of Lycaenids have been recorded feeding on locoweeds, these are the only ones we have found. The adults (fig. 5a) are small (wingspan less than 1½ inches), blue butterflies with a series of small orange spots on the back of the hind wings. The larvae (fig. 5b) are green, ranging from 1/4 to 3/4 inch long and very difficult to see while feeding on locoweed leaves. Larvae chew small holes in the upper surface of the leaves, insert their heads, and consume the tissues that they can reach between the leaf surfaces. This results in plants with characteristic white spots (fig. 5b), many times 5 or 10 per leaflet. These insects feed on a variety of other closely related plant species.

**Mealybugs** (Coccoidea) are small, sucking insects that feed on the roots and crown of white and woolly locoweed. Mealybugs (fig. 6) are small (1/16 to 3/8 inch), oval shaped, and covered with a fine, whitish “powder” or wax. The insects can be found feeding individually or in large numbers (greater than 100/plant), especially on plants damaged by other insects. Many species of mealybugs are attended by ants, which protect the mealybugs and help move them from plant to plant. The ants use the mealybugs’ honeydew as a food source. We know very little about the mealybugs attacking locoweed in New Mexico.

**Seed weevils** (Bruchidae) are small, gray, oval or egg-shaped beetles, that feed on the seed pods of white and purple locoweed. The adults are about 1/8 inch long (about the size of a locoweed seed—see fig. 7a) with wing coverings that seem to be “short,” not completely covering the abdomen. They lay eggs on developing locoweed seed pods. Seed pods that are attacked have a characteristic hole near the base of each pod (fig. 7b). The weevil larvae feed inside the pod, many times destroying all seeds in a pod. Unfortunately, densities are rarely high enough to eliminate seed production.

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Figure 1a

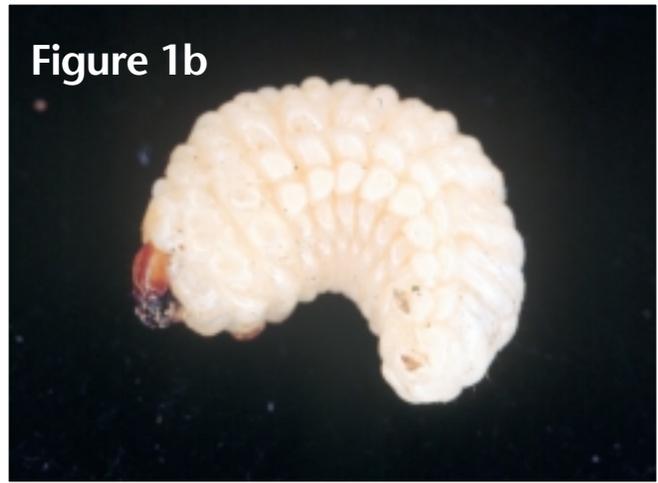


Figure 1b



Figure 1c

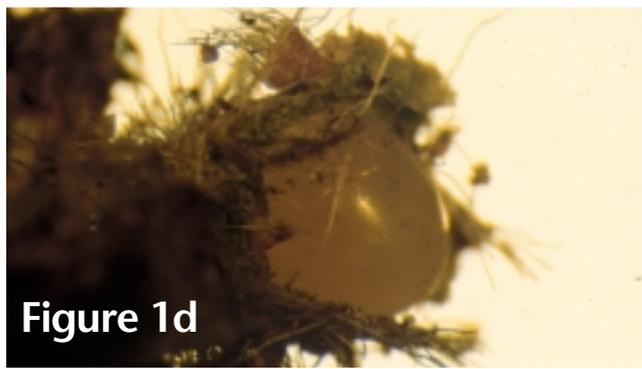


Figure 1d



Figure 2a



Figure 2b



Figure 3

Figure 4a



Figure 4b



Figure 5a



Figure 5b



Figure 6



Figure 7a



Figure 7b

