

Identification of the Cactus Moth, *Cactoblastis cactorum*

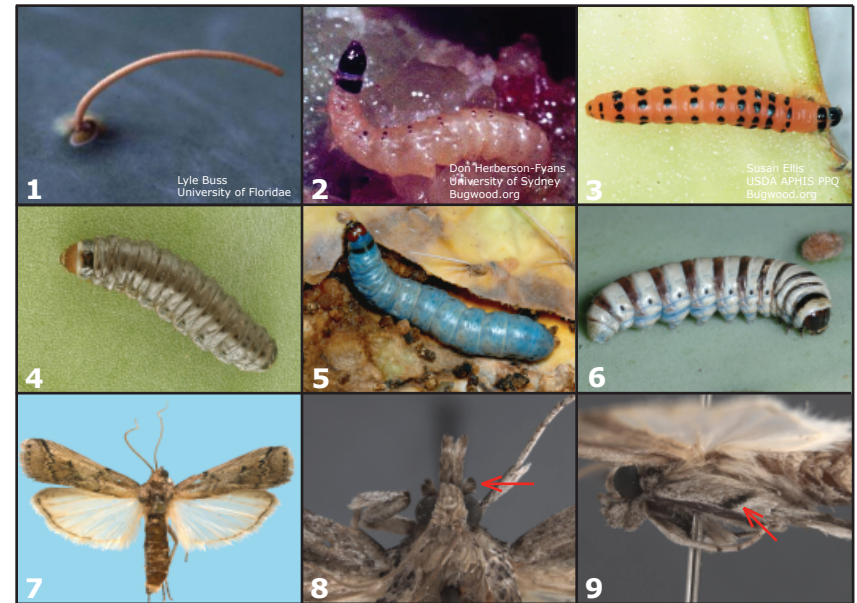
Egg Sticks. Egg sticks of the cactus moth (Fig. 1) cannot be distinguished reliably from those of native species of *Melitara*.

Larvae. Early instar larvae of *Cactoblastis* (Fig. 2) lack distinctive colors and should be examined by a specialist for identification or held in rearing containers to obtain the pigmented later instars. Late instar larvae of *Cactoblastis* are red with black bands or spots (Fig. 3), which differs from all native species in the U.S. that feed on prickly pear cactus (Figs. 4-6).

Adults. Forewings of *Cactoblastis* and *Melitara* are similar in having a gray ground color crossed by a dark zigzag line near base and a double zigzag line near apex (Figs. 7). The anterior, or costal, area of the wing is lightly colored between the zigzag lines. The labial palpi of *Cactoblastis* are long and extend forward beyond the head in females and are shorter and curved upward in males. The maxillary palpi are large and fan-shaped and are visible at the sides of the labial palpi (Fig. 8), a character distinguishing *Cactoblastis* from *Melitara* and other species commonly found in pheromone traps. The antennae of both sexes are simple, without any lateral pectinate projections, whereas the antennae are pectinate in both sexes of *Melitara* species. The middle leg has an oblique black stripe on the tibia in *Cactoblastis* and *Melitara* (Fig. 9), but is lacking in many non-target species in pheromone traps. Males have a small, inconspicuous proboscis that is covered with scales in both genera.

Identification of *Cactoblastis* in Pheromone Traps. An identification key for screening pheromone traps is provided on the opposite page. Many non-target species in traps are small phycitine moths that have forewing lengths less than 3/8 inch long. The most common non-target species of similar size is *Spodoptera exigua*, which differs in having a yellow spot near the middle of the forewing, a large, unscaled proboscis, and small spines on the hind tarsi. Also, *Spodoptera* lacks the fan-shaped maxillary palpi and the black band on the tibia of the middle leg.

Other information on the cactus moth can be found at the websites http://www.aphis.usda.gov/plant_health/plant_pest_info/cactoblastis/ and <http://www.gri.msstate.edu/research/cmdmn/>.



1. Egg Stick of *Cactoblastis cactorum*
2. Early instar of *Cactoblastis cactorum*
3. Late instars of *Cactoblastis cactorum*
4. Larva of *Melitara prodenialis*
5. Larva of *Melitara* sp. (Arizona)
6. Larva of *Melitara* sp. (Texas)
7. *Cactoblastis cactorum* adult
8. Maxillary palpus of *Cactoblastis cactorum* (arrow)
9. Stripe (arrow) on tibia of middle leg of *Cactoblastis cactorum*

Acknowledgements

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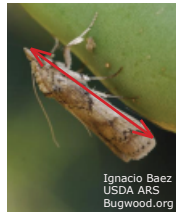
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Identification Key for Screening Pheromone Traps for *Cactoblastis cactorum*

Start Here (magnifier required)

Body length from palpi to end of wing 1/2 - 3/4 inch, or spread forewing length 3/8 - 5/8 inch. If length is uncertain, go to next choice below.



Body length from palpi to end of wing less than 1/2 or more than 3/4 inch, or spread forewing length less than 3/8 or more 5/8 inch.

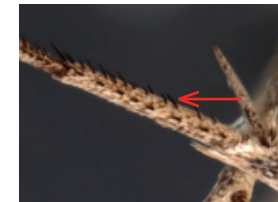


Discard

Maxillary palpi visible and fan-shaped (arrows), proboscis very small and scaled, hind tarsi without spines.

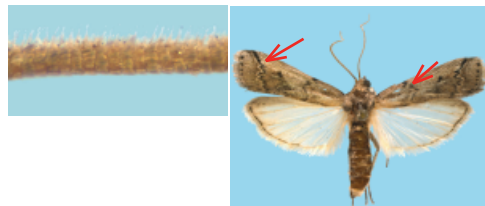


Maxillary palpi not visible; tarsi of hind leg with many spines (arrow); proboscis large, without scales.



Discard

Antenna not pectinate and forewing with dark zigzag lines near base and apex.



Cactoblastis cactorum

Antenna pectinate or forewing without two zigzag lines.



Discard

Other Key Characters for Discarding Non-target Species

Forewing with yellow spot (*Spodoptera exigua*)



Length of labial palpi more than 2x width of compound eye (many Pyraloidea)



Middle leg without oblique black stripe (*Cactoblastis* with stripe shown here)

