

CACTOBLASTIS CACTORUM IN CUBA (LEPIDOPTERA: PYRALIDAE: PHYCITINAE)

LUIS ROBERTO HERNÁNDEZ AND THOMAS C. EMMEL

Museo Nacional de Historia Natural, Havana 2, Havana, 10200, Cuba; and
Department of Zoology, University of Florida, Gainesville, Florida 32611, U.S.A.

ABSTRACT.— The first definite establishment of the cactus-feeding phycitine moth, *Cactoblastis cactorum* (Berg) is recorded for Cuba (December 1992). It was described originally from Argentina and has been spreading through the West Indies and onto the United States mainland. Cuban larvae are illustrated in color.

KEY WORDS: Argentina, Bahamas, Cactaceae, Cuba, Leeward Islands, Puerto Rico, Virgin Islands, West Indies.

The phycitine moth, *Cactoblastis cactorum* (Berg), was described by Berg (1885) from Argentina. The species subsequently has been introduced into the Leeward Islands of the West Indies to control introduced *Opuntia* cactus (see Simmonds and Bennett, 1966). The species has been exported from Argentina as a biological control of introduced cactus in Australia and Hawaii, as well as the Leeward Islands of the West Indies. In 1971, it appeared in Puerto Rico and the U.S. Virgin Islands. By 1983, there were reports of its presence in the Bahamas and a very doubtful report for Cuba in 1988. In 1989 and 1990, it was reported to have reached Florida, including the Florida Keys in Monroe County and the mainland as far north as Brevard County on the east coast and Manatee County on the west coast of Florida (Garcia-Tuduri *et al.*, 1971; Habeck and Bennett, 1990; Dickel, 1991).

The first verified record of this moth species in Cuba came from a collection in the middle of the month of December 1992 by the Cuban botanist Alberto Areces, who informed us of larval infestations in cactus. The area where it was found is near Bibijagua Beach, in the northeast area of the Isle of Pines (now called the Island of the Youth or Isla Juventud). We have preserved the larvae and have used them in Fig. 1 to illustrate the typical fourth instar stage as found in the host plant at the beach site.

This first report of the moth from Cuba ensued from the botanical discovery of the decimation of the Bibijagua Beach population of a rare cactus species, *Opuntia dilloni*. The characteristic damage done by *Cactoblastis* is represented by almost complete destruction of the plants due to the larva eating the external epithelium and then consuming the entire interior of a pad in a few hours. Photographs were taken of the infested cactus patch, which documented that within a few days of the initial discovery, all the plants of the patch had died and the pads were dried up, as a result of the larval deprivations of this species. Thus the warning that Dickel (1991) sounded, to the effect that this "robust moth appears to be a strong flier and is a potential

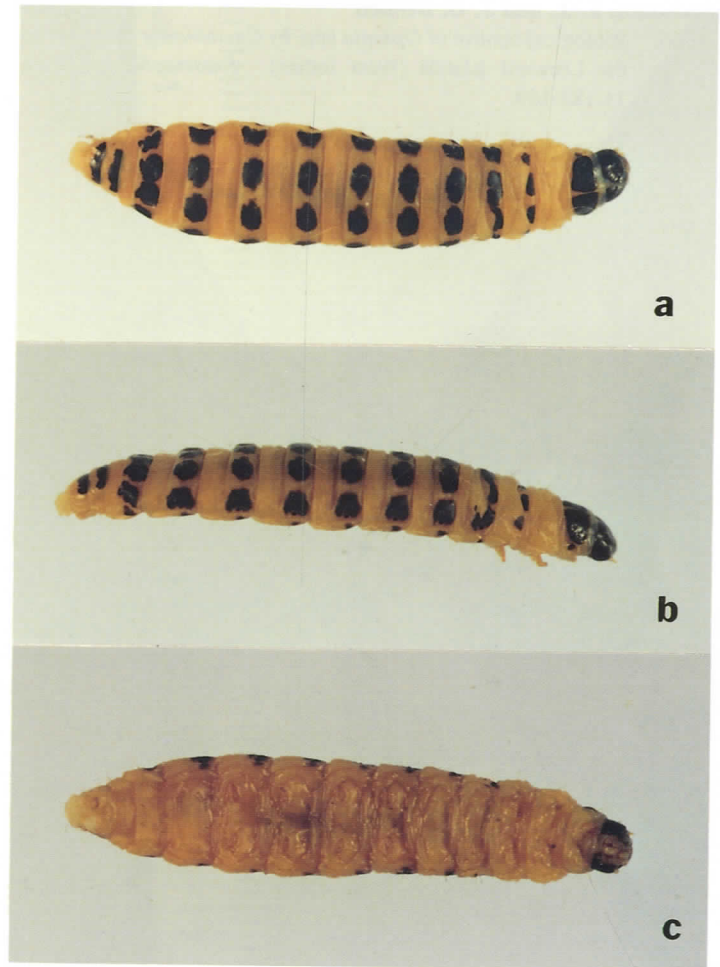


Fig. 1. Fourth instar larva of *Cactoblastis cactorum* (Berg), Isle of Pines, Cuba. (a) Dorsal view, (b) lateral view, and (c) ventral view.

hazard to *Opuntia* cacti throughout the southern United States," must be extended to the endemic cacti of Cuba and other Caribbean islands as well as mainland North America.

ACKNOWLEDGMENTS

We thank Alberto Areces for bringing this infestation to our attention.

LITERATURE CITED

- Berg, C.**
1885. Quindecim lepidoptera nova. Faunae republicae Argentinae et Uruguayensis. *Anal. Cient. Arg.* (Buenos Aires), 19:275-277.
- Dickel, T. S.**
1991. *Cactoblastis cactorum* in Florida (Lepidoptera: Pyralidae: Phycitinae). *Trop. Lepid.* (Gainesville), 2:117-118.
- García-Tuduiri, J. C., L. F. Martorell, and S. M. Gaud**
1971. Geographical distribution and host plants of the cactus moth *Cactoblastis cactorum* (Berg) in Puerto Rico and the United States Virgin Islands. *J. Agric. Univ. Puerto Rico* (Mayaguez), [1971]:130-134.
- Habeck, D. H., and F. D. Bennett**
1990. *Cactoblastis cactorum* Berg (Lepidoptera: Pyralidae), a phycitine new to Florida. *Fla. Dept. Agric. Consumer Serv., Div. Plant Indus., Ent. Circ.* (Gainesville), 333:1-4.
- Simmonds, F. J., and F. D. Bennett**
1966. Biological control of *Opuntia* spp. by *Cactoblastis cactorum* in the Leeward Islands (West Indies). *Entomophaga* (Paris), 11:183-189.