ricklypear cacti (*Opuntia spp.*) are being threatened by the accidental introduction of the cactus moth (*Cactoblastis cactorum*) into Florida and its expansion to Alabama on the Gulf Coast and South Carolina on the Atlantic Coast. This moth, native to Argentina, is capable of spreading into Mississippi and other states westward.

The caterpillars of this moth are capable of complete destruction of entire plants and stands of cacti (Fig 1). This



Fig. 1. Pricklypear cactus damaged by cactus moth. Photo by J.S. Peterson, USDA-NRCS.

exotic pest is expected to have a catastrophic effect on the landscape of the western states and Mexico if its range continues to expand.

The female moth lays eggs on top of each other like pancakes to form an "egg stick" that resembles a cactus spine (Fig. 2). Each female can lay 60-100 eggs in a single egg stick and can lay 200-300 eggs within a few days. Egg sticks are about an inch long and are usually on the undersides or other protected parts of the plant pads. The egg stage lasts

3-4 weeks.

The caterpillars burrow into a pad after hatching and feed together as a group. The infestation by the lightly



Fig. 2. The egg stick of the cactus moth looks like a cactus spine. Photo by Lyle Buss, University of Florida.

colored young larvae may be difficult to detect without splitting the pad open.

As the larvae mature, frass and sap may be pushed out of openings in the pad and onto the ground. Eventually the pad will become transparent and hollow. Larvae may move to additional pads to complete development, es-



Fig. 3. Cactus moth larva. Photo by Lyle Buss, University of Florida.

pecially if the initially infested pad is small. Larvae mature in 4-5 weeks.

Mature larva are bright orange to red with black spots or bands around their bodies (Fig. 3). Mature larvae leave the plant and pupate under dead leaves or between the pads where they spin white cocoons. The pupal stage lasts 15-20 days.

Native cactus moths in the genus *Melitaria*, also occur in southeastern and western United States, but they do not devastate cacti like the exotic cactus moth. Larvae of native cactus moths feed singly inside cacti pads, and are easily distinguished by their solid blue to purple color.

The cactus moth is gray with a zigzag line across the outer fourth of the forewing (Fig. 4). The span of both



Fig. 4. Adult cactus moth. Photo by Lyle Buss, University of Florida.

wings varies from slightly less than an inch to an inch and third, with the female being larger than the male. This moth has three generations in Florida with the first flight period during late March, second at the end of July, and third during mid-September-October. Larvae from the last generation spend the winter inside pads of the cactus.

For more information, please see GRI's cactus moth Web site: www.gri.msstate.edu/cactus_moth.

How You Can Help

Researchers are looking for pricklypear in Mississippi. This information is available to the public and government agencies through a Web database. You can help by providing locations where cacti are growing. Please send this information to:

Victor Maddox, Ph.D. GeoResources Institute Box 9555 Mississippi State, MS 39762-9555 Ph. 662-325-2313 Fax 662-325-8742

E-mail: vmaddox@gri.msstate.edu

The National Cactus Moth Detection & Monitoring Network needs volunteers to monitor cactus stands for cactus moth. Individuals or groups willing to collaborate on this project can find information at: www.gri.msstate.edu/cactus_moth. To join the network, please contact:

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Project Partners











Other collaborators include:

Mississippi Entomological Museum
U.S. Forest Service
U.S. Fish and Wildlife Service
National Park Service
U.S. Department of Defense
Bureau of Land Mangement
Mississippi Natural Heritage Program
Mississippi Department of Agriculture &
Commerce, Bureau of Plant Industry
The Nature Conservancy
National Invasive Species Council
NatureServe



Cactus Moth An Invading Pest



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