

## WAYS YOU CAN HELP

Currently, an effort is being conducted to locate natural and ornamental pricklypear populations in Mississippi. This information is being placed in a web database at [www.gri.msstate.edu/cactus\\_moth](http://www.gri.msstate.edu/cactus_moth) for private and government agency access. This information can then be used by agencies to locate pricklypear populations for cactus moth monitoring. You can help by providing locations where native and ornamental cacti are growing in Mississippi. 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](mailto:vmaddox@gri.msstate.edu).

Assistance is also needed from individuals who can volunteer to monitor stands of native cacti and ornamental cacti for presence of the cactus moth. In addition, reports of suspected infestations are needed. Individuals or groups willing to collaborate on this project should contact: Richard L. Brown, Ph.D., Department of Entomology & Plant Pathology, Box 9775, Mississippi State, MS 39762-9775, Ph. 662-325-2085, Fax: 662-325-8837, E-mail: [moth@ra.msstate.edu](mailto:moth@ra.msstate.edu).



John D. Madsen, PhD  
MSU GeoResources Institute  
Box 9652  
Mississippi State, MS 39762-9652  
662-325-2428 or [jmadsen@gri.msstate.edu](mailto:jmadsen@gri.msstate.edu)  
[www.gri.msstate.edu](http://www.gri.msstate.edu)

Published by the GeoResources Institute in cooperation with the United States Geological Survey (USGS). This info is to be published as part of the GeoResources Institute's Invasive Species Spotlight program with the Extension Service at MSU.



GRI Pub #5025

# INVASIVE SPECIES FACT SHEET

## Cactus Moth Host Plant

### Pricklypear Cactus (*Opuntia* P. Mill.) in Mississippi

#### Description, Distribution, and Management

Victor Maddox, Ph.D., Postdoctoral Associate, Mississippi State University  
John D. Madsen, Ph.D., GeoResources Institute, Mississippi State University

## INTRODUCTION

Pricklypear cacti belong to the Genus *Opuntia* in the Tribe Opuntieae in the Family Cactaceae. *Opuntia* is the most widespread genus of cactus and one of the largest with 150 species. There are over 34 native species in the United States and many more in cultivation. *Opuntia*, like other cacti, are generally thought of as plants of the dry landscape of the Southwestern U.S. While they do tend to inhabit dry environments, native cacti can be found in almost every state. In addition, there are rare species of *Opuntia* in the Southwest, as well as Florida.

Pricklypear cacti are being threatened by the accidental introduction of the cactus moth (*Cactoblastis cactorum*) into Florida. Since introduction, it has expanded its range to Pensacola on the Gulf Coast and Charleston, South Carolina on the Atlantic Coast. This moth, native to Argentina, has reached Alabama and may spread to Mississippi within the next year. The caterpillars of this moth are capable of complete destruction of entire plants and stands of cacti. This exotic pest is expected to have a catastrophic effect on the landscape of the western states and Mexico, if its range expands beyond Louisiana.

## PRICKLYPEAR SPECIES IN MISSISSIPPI

There are four common species of pricklypear in Mississippi. All four belong to the Subgenus *Platyopuntia*. Devil's-tongue (*Opuntia humifusa*), cockspur pricklypear (*O. pusilla*), and erect pricklypear (*O. stricta*) are native to Mississippi, while cow tongue pricklypear (*O. engelmannii*) is not.

Devil's-tongue (Figures 1-3) is widely distributed in the United States and is most frequently found on dry sites with sandy or gravelly soils, or shallow soils over bedrock. It also occurs on relic shell middens along the southeastern United States coast and is occasionally cultivated as an ornamental.



Fig. 1. Devil's-tongue (*Opuntia humifusa*) with fruit. Photo by Victor Maddox.



Fig. 2. Devil's-tongue (*Opuntia humifusa*) with fruit. Photo by Victor Maddox.

## PRICKLYPEAR SPECIES IN MISSISSIPPI. CONTINUED

Cockspur pricklypear (Figures 4 and 5) is restricted to the Southern United States, particularly along the coastline and most frequent on dry sites, due to sandy or gravelly soils. It is also infrequently cultivated as an ornamental.

Erect pricklypear (Figures 6 and 7) typically occurs on dry, sandy soils. It also occurs on relic shell middens along the southeastern United States coast. It is the least common of these four species in Mississippi and restricted to the coast. Erect pricklypear is very similar in appearance to cow tongue pricklypear (Figure 8).

The fruit of the cow tongue pricklypear, a southwest native, has been eaten although it can be weedy in the southwestern United States. It is also utilized in commercial and private landscapes as an ornamental. Cow tongue pricklypear may persist at old home sites, and can be invasive in the southwestern United States. Cow tongue pricklypear is a highly variable species, which includes approximately five botanical varieties and some hybrids. This can make it difficult to dis-



Fig. 3. Devil's-tongue (*Opuntia humifusa*) on barrier island. Photo by Victor Maddox.



Fig. 5. Cockspur pricklypear (*Opuntia pusilla*) with fruit (red). Photo by Victor Maddox.



Fig. 4. Cockspur pricklypear (*Opuntia pusilla*) with fruit (red). Photo by Victor Maddox.



Fig. 6. Erect pricklypear (*Opuntia stricta*) with fruit. Photo by Victor Maddox.



Fig. 7. Erect pricklypear (*Opuntia stricta*) with ripe fruit. Photo by Victor Maddox.



Fig. 8. Cow tongue pricklypear (*Opuntia engelmannii*) with fruit (red). Photos by Victor Maddox.

## RELATED WEB SITES

For pricklypear: The PLANTS Database, Version 3.5 National Plant Data Center, Baton Rouge, LA. <http://plants.usda.gov>

For cactus moth: The cactus moth, an invading pest. Geo-Resources Institute, Mississippi State University, Mississippi State, MS. [www.gri.msstate.edu/cactus\\_moth](http://www.gri.msstate.edu/cactus_moth)

## MORE INFORMATION

Solis, M.A. 2004. Tracking the cactus moth, *Cactoblastis cactorum* Berg., as it flies and eats its way westward in the U.S. *News of the Lepidopterists' Society*. 46(1):3-7.

Hight, S.D., J.E. Carpenter, K.A. Bloem, S. Bloem, R.W. Pemberton, and P. Stiling. 2002. Expanding geographical range of *Cactoblastis cactorum* (Lepidoptera: Pyralidae) in North America. *Florida Ent.* 85(3):527-529.

Stiling, P. 2002. Potential non-target effects of a biological control agent, prickly pear moth, *Cactoblastis cactorum* Berg. (Lepidoptera: Pyralidae), in North America, and possible management actions. *Biol. Invasions* 4:273-281.