

Pest Alert

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Florida Department of Agriculture and Consumer Services, Division of Plant Industry
Charles H. Bronson, Commissioner of Agriculture

***Conchaspis cordiae* Mamet (Hemiptera: Conchaspidae) - A New Pest of West Indian Mahogany in Florida**

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INTRODUCTION: Division of Plant Industry inspector Lynda Davis collected *Conchaspis cordiae* Mamet on November 26, 2003 in Hialeah (Miami-Dade County). This find is a new Continental U.S. Record. At the time of collection the specimen was misidentified as *Conchaspis anagracei* Cockerell. Most recently, Dr. Forrest (Bill) Howard (University of Florida, Ft. Lauderdale Research and Education Center) alerted the Division of Plant Industry about growing numbers of false armored scales (Hemiptera: Conchaspidae) occurring on West Indian mahogany (*Swietenia mahagoni* Jacq.) at the Ft. Lauderdale Research and Education Center. Samples taken by Dr. Howard were indeed *Conchaspis cordiae* Mamet and were designated as a New County Record (Broward County).

DESCRIPTION: Members of the Conchaspidae (false armored scales) look somewhat similar to armored scales (Diaspididae) in that they have a wax-like covering ('armor') over their body. In particular, field specimens of both *C. cordiae* (Fig. 1) and *C. anagracei* (Fig. 2) look similar to white peach scale (*Pseudaulacaspis pentagona* (Targioni Tozzetti) or mining scale (*Howardia biclavis* (Comstock) in that they possess a white to dirty white cover and appear elevated or convex in body shape. The covers of these *Conchaspis* species differ from armored scales in that they do not incorporate exuviae (cast skin) in the 'armor'. Field specimens of both *C. anagracei* and *C. cordiae* strongly resemble one another and cannot be differentiated in the field readily. Accurate species determination cannot be made without slide mounting of specimens.

BIOLOGY: Very little is known about the biology of this scale insect species, and there are no reported data on natural enemies. However, *Encarsia citrina* Craw (Hymenoptera: Aphelenidae) parasitoids have been reared from *C. anagracei* collected in Florida. This particular parasitoid is known mostly from armored scales and likely has a wide host range.

HOSTS: The following hosts have been recorded for *C. cordiae*: **Apocynaceae:** *Rauvolfia viridis* Willd. Ex Roemer & Schultes (unpublished); **Boraginaceae:** *Cordia species* (Mamet 1954); **Meliaceae** *Swietenia mahagoni* (L.) Jacq. (Panis & Martin 1976); **Polygonaceae:** *Coccoloba uvifera* (L.) L. (Panis & Martin 1976).

ECONOMIC IMPORTANCE: Very little information is available on this scale insect, and the overall economic significance of this scale insect in Florida cannot be determined at this time. From personal communication with Dr. Howard (University of Florida), it appears that this scale insect can build up fairly large populations on *Swietenia mahagoni*, but the overall significance of large populations on this host has not yet been determined.

DISTRIBUTION: This scale insect apparently is native to the Caribbean and has been reported from: Dominican Republic (Ben Dov 1981), St. Croix (Mamet 1954), Haiti (unpublished-personal communication with Dr. Doug Miller USNM-Beltsville MD) and Puerto Rico (unpublished-personal communication with Dr. Douglass Miller, USNM, Beltsville MD).

FLORIDA DISTRIBUTION: The current Florida distribution of this scale insect is in Broward and Miami-Dade counties.

REFERENCES:



Florida Department of Agriculture and Consumer Services
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- Mamet, J.R.** 1954. A monograph of the Conchaspidae Green (Hemiptera: Coccoidea). *Transactions of the Royal Entomological Society of London* 105: 189-239.
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Fig 2. *Conchaspis anagracei*
Photo credit: Avas Hamon, FDACS/DPI



Fig 1. *Conchaspis cordiae*
Photo credit: Lyle Buss, UF