Pest Alert

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

A New Exotic Soft Scale Insect on Croton in South Florida (Hemiptera: Coccoidea: Coccidae)

Greg Hodges, Greg.Hodges@FreshFromFlorida.com, Florida Department of Agriculture & Consumer Services, Division of Plant Industry

INTRODUCTION: Division of Plant Industry inspector Lynn Howerton collected this new-to-science record on April 9, 2008 at a nursery in Marathon (Monroe County), Florida. The host plant was croton (*Codiaeum variegatum* (L.) Blume). Specimens submitted to the Division of Plant Industry were determined to be an unknown, but exotic soft scale insect (Hemiptera: Coccidae). Subsequent collections of this exotic soft scale on croton have been made from Broward, Miami-Dade and Palm Beach counties.

IDENTIFICATION: Field specimens appear very similar to individuals of the genus *Philephedra*, but differ in that this species does not produce an ovisac. Specimens were sent to various specialists and there was a preliminary identification of this scale as being *Philephedra* sp. nr. *crescentiae* (Cockerell). However, there was some disagreement over the placement of this exotic scale into the genus *Philephedra* and specimens were shared with Dr. Chris Hodgson (National Museum of Wales, England) for confirmation/determination. Dr. Hodgson indicated that this new exotic scale insect did not fit into *Philephedra* and is most likely an undescribed species in an undescribed genus of unknown origin. Currently, efforts are being made to describe this new scale insect.

DESCRIPTION: Adult females and late instars of this new exotic soft scale (Fig. 1) have a greenish yellow appearance with dark striations and are approximately 3.5 mm to 7.0 mm long by 2.0 mm wide. Immature male covers are smaller than the female scales and have a glassy appearance. Adult males are small orange bodied gnat-like insects with white wax tail filaments (Fig. 2). This scale superficially resembles a common South Florida scale, *Philephedra tuberculosa* Nakahara & Gill (Fig. 3), but does not produce an ovisac. Other scales that might be confused with this new exotic scale are young females of *Pulvinaria psidii* (green shield scale) (Fig. 4) and *Pulvinaria urbicola* (urbicola scale) (Fig. 5) before they produce ovisacs.

BIOLOGY: There is no information on the biology of this new scale insect at this time. There have been adults and young crawlers present in all samples received by the Division of Plant Industry.

HOSTS: Croton (*Codiaeum variegatum* (L.) Blume), guava (*Psidium guajava* L.), mysore fig (*Ficus mysorensis* Roth), strangler fig (*Ficus aurea* Nutt.), mango (*Mangifera indica* L.), *Ardisia escallonoides* Schiede & Deppe ex Schltdl. & Cham. (Island marlberry), *Cupania glabra* Sw. (Florida toadwood), *Hamelia patens* Jacq. (Scarletbush), *Psychotria nervosa* Sw. (Wild Coffee) and *Zanthoxylum flavum* Vahl (West Indian satinwood).

ECONOMIC IMPORTANCE: The economic importance of this new soft scale is unknown at this time. It appears that this scale does build up high density populations on croton and may be a pest for this host.

CONTROLS: For controls, please see the University of Florida pesticide recommendations for scale insects on woody ornamentals (http://edis.ifas.ufl.edu/mg005) or contact your local county extension office (http://solutionsforyourlife.ufl.edu/map/index.html)

NATURAL ENEMIES: No natural enemies have been found in samples submitted to the Division of Plant Industry.

FLORIDA DISTRIBUTION: Broward, Duval, Indian River, Lee, Miami-Dade, Monroe, Orange, Palm Beach, Pinellas, Putnam, and St. Lucie counties.

REFERENCES:

Hamon, A.B. & Williams, M.L. *1984. The soft scale insects of Florida (Homoptera: Coccoidea: Coccidae). In: Arthropods of Florida and Neighboring Land Areas. Florida Department of Agriculture & Consumer Services Division of Plant Industry, Gainesville. 194 p.*

Hodgson, C.J. *1994. The scale insect family Coccidae: an identification manual to genera. CAB International, Wallingford, Oxon, UK. 639 p.*

Fig 1. Adult and immatures of this new scale insect on croton.
Photo credit: Lyle Buss, University of Florida

Fig 2. Adult female, adult male and immatures of this new scale insect on croton.
Photo credit: Lyle Buss, University of Florida

Fig 3. *Philephedra tuberculosa* on Coccoloba
Photo credit: Whitney Cranshaw, Colorado State University

Fig 4. *Pulvinaria psidii* adult with ovisac
Photo credit: Ray Gill, CDFA

Fig 5. *Pulvinaria urbicola* on Coccoloba attended by ants.
Photo credit: Lyle Buss, University of Florida