

A New Exotic Soft Scale Insect on Croton

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.

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 escallonoidea* Schiede & Deppe ex Schltld. & 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.



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



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



Fig 3. *Pulvinaria tuberculosa* on *Coccothraux*
(Photograph credit: Whitney Cranshaw, Colorado State University)



Fig 4. *Pulvinaria psidii* adult with ovisac
(Photograph credit: Ray Gill, CDFA)



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