

Pest Alert

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

***Crypticerya genistae* (Hemiptera: Margarodidae)** **A new exotic scale insect for Florida**

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INTRODUCTION: USDA-APHIS Port Inspectors Margarita Lahens and Heather Hursh collected specimens of *Crypticerya genistae* Hempel (Hemiptera: Margarodidae) on July 7, 2005. The initial find was on a *Sesbania* species (Leguminosae) and is considered a NEW CONTINENTAL U.S. RECORD.

On May 11, 2006, the initial field site was evaluated and a survey of some surrounding areas was conducted by both Division of Plant Industry and USDA-APHIS personnel. The scale was found to be on additional hosts and one mile north and one mile south of the initial find. Since this time, there are additional sites located in Broward and Miami-Dade counties.

Initially, the taxonomy of this insect was assigned the name of *Icerya rileyi* nr. Cockerell due to the relative closeness in morphology to both *Icerya rileyi* Cockerell and *Icerya littoralis* Cockerell. With the help of Dr. Penny Gullan and Ms. Corrine Unruh (University of California, Davis) the identity of this Iceryine was determined to be *Crypticerya genistae* Hempel.

DESCRIPTION: Members of the genus *Icerya* superficially resemble mealybugs and soft scales in that they are mobile (like mealybugs) and produce ovisacs like some of the soft scales (Fig. 1) and mealybugs (Fig. 2). The only *Icerya* that had been present in Florida was *Icerya purchasi* (cottony cushion scale) (Fig. 3) and it typically has an orange body with black legs and a white 'fluted' or grooved ovisac (about a 1/4 inch long) that tapers towards the host plant material. *Crypticerya genistae* Hempel looks somewhat similar to the cottony cushion scale in that it has a light orange body, black legs and a white fluted ovisac. However, it differs by having a longer ovisac (2/3 to 3/4 inch long) and by holding the ovisac either parallel to the host plant material or erect (Figs. 4 and 5).

BIOLOGY: Very little is known about the biology of this scale insect species, and there are no reported data on natural enemies. Field observations conducted during 2006 suggest that natural enemies do not seem to be present in the Florida population.

HOSTS: The following hosts have been recorded for *Crypticerya genistae* in Florida: **Casuarinaceae:** *Casuarina equisetifolia* L.; **Compositae:** *Ambrosia artemisiifolia* L., *Baccharis halimifolia* L., *Bidens alba* (L.) DC., *Conyza Canadensis* (L.) Cronq., *Eclipta prostrata* (L.) L., *Eupatorium capillifolium* (Lam.) Small, *Helianthus debilis* Nutt., *Heterotheca sabaxillaris*, *Pluchea carolinensis* (Jacq.) G. Don, *Pluchea odorata* (L.) Cass., *Solidago leavenworthii* Torr. & Gray, *Sphagneticola trilobata* (L.) Pruski; **Convolvulaceae:** *Ipomoea pes-caprae* R. Br.; **Cucurbitaceae:** *Momordica charantia* L.; **Cyperaceae:** *Rhynchospora* sp.; **Euphorbiaceae:** *Chamaesyce hirta* Millsp., *Chamaesyce hypericifolia* (L.) Millsp., *Chamaesyce mesembrianthemifolia*, *Poinsettia cyathophora* (Murray) Bartl., *Ricinus communis* L.; **Gramineae:** *Bothriochloa pertusa*; **Leguminosae:** *Acacia cornigera* (L.) Willd., *Cajanus cajan* (L.) Millsp., *Desmodium incanum* DC., *Desmodium tortuosum* (Sw.) DC., *Indigofera tinctoria* L., *Macroptilium lathyroides* (L.) Urban, *Sesbania* sp., *Vicia acutifolia* Ell., *Vigna luteola* (Jacq.) Benth.; **Onagraceae:** *Ludwigia peruviana* (L.) Hara; **Palmae:** *Dypsis lutescens* (H. Wendl.) Beentje & J. Dransf.; **Primulaceae:** *Samolus valerandi* L.; **Rubiaceae:** *Richardia grandiflora* (Cham. & Schlecht.)



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J.A. & J.H. Schultes, *Spermacoce verticillata* L.; **Sapindaceae:** *Filicium decipiens* (Wight & Arn.) Thwaites ex. Hook. F.; **Sterculiaceae:** *Waltheria indica* L.; **Vitaceae:** *Ampelopsis arborea* (L.) Koehne.

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 observation, it appears that this scale insect can build up fairly large populations on a greater host range than anticipated. The Leguminosae hosts seem to support fairly large populations of this insect without showing too much plant stress. Hosts such as *B. halimifolia* appear to be highly susceptible to this scale insect and many dead *Baccharis* were observed in the field. Additionally, this scale insect is noted as being a significant pest of vegetable crops in Barbados.

DISTRIBUTION: Type material of this scale insect indicates that it is likely native to Brazil and has also been collected in the Bahamas and Barbados.

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

SELECTED REFERENCES:

Ben-Dov, Y. 2005. *A Systematic Catalogue of the Scale Insect Family Margarodidae (Hemiptera: Coccoidea) of the World*. Intercept Ltd., Wimborne, U.K.. 400 pp.

Ben-Dov, Y., Miller, D.R. & Gibson, G.A.P. 2001. *ScaleNet, Query, Scales in a Genus, Icerya*. 16 May 2006. Ben-Dov, Y.,



Fig. 1. Soft scale with ovisac (*Pulvinaria acericola* Walsh & Riley).
Photo credit: Dr. Avas Hamon, FDACS-DPI



Fig. 2. Mealybug with ovisac (*Phenacoccus madeirensis* Green).
Photo credit: Dr. Avas Hamon, FDACS-DPI



Fig. 3. Cottony cushion scale, *Icerya purchasi*.
Photo credit: FDACS-DPI



Fig. 4. *Crypticerya genistae*.
Photo credit: Lyle Buss, University of Florida



Fig. 5. *Crypticerya genistae*.

Photo credit: Dr. Susan Halbert, FDACS-DPI