

Research Note

PSEUDAULACASPIS PENTAGONA FROM PEACHES IN PUERTO RICO^{1,2}

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The white peach scale (WPS), *Pseudaulacaspis pentagona* (Targioni-Tozzetti) (Homoptera: Diaspididae), was detected in Puerto Rico on *Prunus persica* (L.) Batsch at the Agricultural Experiment Stations in Corozal (18°19.366N, 66°1.606W; 210.3 meters above sea level) and in Adjuntas (18°10.528N, 66°47.964W, 571.5 meters above sea level). The insect was detected 16 January 2003 in the field on peach trees branches in an experimental orchard of cultivars Flordaprince, Tropic Beauty, UFGold and Flordaglo. The WPS was identified by P. Stansly. Peach trees were imported to the island 25 January 2002, from Florida, under Puerto Rico Import Permit number 0102-12 and Phytosanitary Export Certificate 581.031(23). These represent a new introduction of *P. persica* commercial varieties to the island. Martorell (1976) reported that *P. persica* was grown occasionally in Puerto Rico. Wolcott (1936) indicated that peaches were severely affected by the scale insect to the extent that the trees no longer existed on the island. Previous to planting, the trees were treated with an insecticide solution. Only trees of cultivar Flordaglo were infested with WPS, thus suggesting varietal preference by the WPS.

The WPS has a cosmopolitan distribution and is one of the most economically important scale insects in the southeastern United States, where it is a serious pest of peaches, papaya, and other fruit and ornamental crops (Nakahara, 1982; Gill, 1997; Pantoja et al., 2002). The insect has been previously reported in Puerto Rico on two species of the Rosacea family, "almendrón" (*Prunus occidentalis*) Sw and on *P. persica* (Wolcott, 1936; 1956; Martorell, 1976). The WPS was reported from Puerto Rico as early as 1902 (ScaleNet, 2005). Martorell (1976) presented a detailed list of the plant species on which this scale insect has been reported from the island, including *Abelmoschus esculentus* (L.) Moench, *Acalypha godseffiana* Mast., *Brunfelsia lactea* Krug & Urban, *Cajanus cajan* (L.) Millsp., *Colotropis procera* (Ait.) R. Br., *Capsicum frutescens* L., *Carica papaya* L., *Chinchona* spp., *Citrus sinensis* (L.) Oesbeck, *Clibadium erosum* (Sw.) DC., *Erythrina fusca* Lour., *Erythrina poeppigiana* (Walp.) O.F. Cook, *Fraxinus uhdei* (Wenzig) Lindgels, *Gleditsia triacanthos* L., *Gossypium barbadense* L., *Hibiscus sabdariffa* L., *Hibiscus tiliaceus* L., *Hyptis pectinata* (L.) Poit., *Malachra capitata* (L.) L., *Mammea*

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americana L., *Mangifera indica* L., *Manihot esculenta* Crantz, *Montezuma speciosissima* Sesse & Moc., *Morus multicaulis* Perr., *Nerium oleander* L., *Pelargorium zonale* L'Herit, *Ricinus communis* L., *Salix humboldtiana* Willd., *Solanum erianthum* D. Don, *Solanum* spp., *Solanum torvum* Sw., *Toona ciliate* Roem., *Trema lamarckianum* (Roem. & Schult.) Blume, *Trema micranthum* (L.) Blume, and *Urena lobata* L.

According to Bennett and Brown (1958), females begin laying eggs about two weeks after mating and lay their full complement of eggs within eight to nine days. Eggs hatch in three to four days after oviposition. Crawlers settle and begin feeding within two days after hatching. Progeny are produced only through mating. The WPS is a threat to the peach and papaya industry as a source of tree stress as well as a cause of fruit downgrading, and as a quarantine pest on fruit for export (Pantoja et al., 2002). Elsewhere, *P. pentagona* is attacked by parasites and predators (Bennett, 1956; Collins and Whitcomb, 1975), but chemical control or the use of oils is often required to prevent severe crop injury. In Puerto Rico WPS was targeted for biological control with the introduction of two parasitoids, but data on the introduction are not available since relevant parasitoid recovery studies were never conducted (Cruz and Segarra, 1992). Future work should establish WPS densities and the interaction of the pest and the released parasitoids.

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