

Fig Wax Scale, *Ceroplastes rusci* (L.), in Florida¹ (Homoptera: Coccoidea: Coccidae)

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INTRODUCTION: The fig wax scale, *Ceroplastes rusci* (L.), was first discovered in Florida at several nursery and stock dealers in 1994 and 1995. It has been a pest of *Ixora* spp. and infrequently found on other host plants. Prior to these discoveries, the California Department of Food and Agriculture had intercepted specimens from Florida.

DESCRIPTION: This scale is deeply encased in pinkish-gray wax, which is divided into three wax plates on each side with additional plates at the anterior and posterior ends (Fig. 1). The single large dorsal plate has a central nucleus. Dorsal and lateral plates are separated from each other by dark red lines which are the color of the scale's body beneath the wax. The anterolateral and mediolateral plates have some white wax which indicates the stigmatic wax bands. These

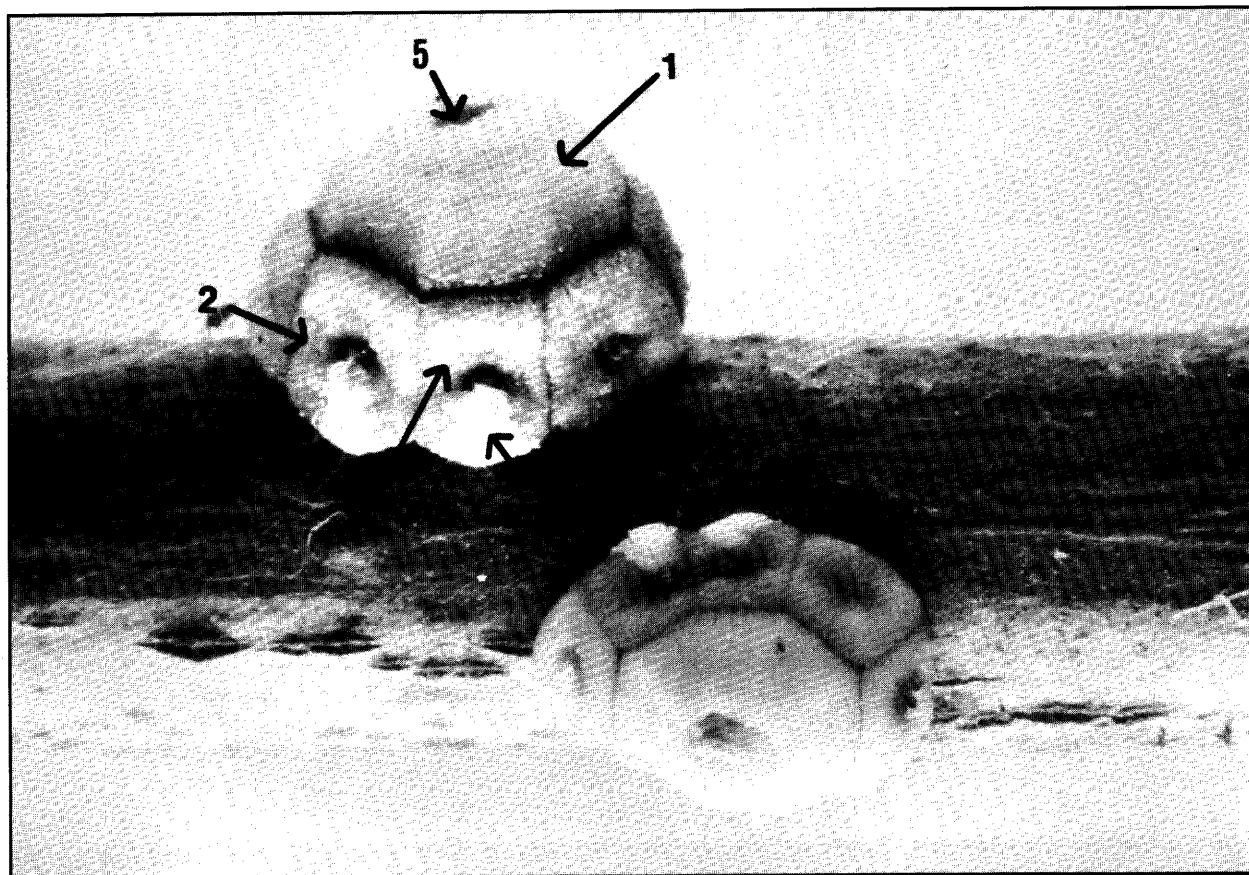


Fig. 1. Adult female *Ceroplastes rusci*. Note the three wax plates on each side. Arrows indicate: 1) dorsal plate; 2) anterolateral plate; 3) mediolateral plate; 4) stigmatic wax; and 5) nucleus. (Photography credit: Jeffrey W. Lotz, DPI.)

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DISTRIBUTION: Talhouk (1975) reported the presence of this scale in the Mediterranean region (Algeria, Cyprus, Egypt, Greece, Israel, Italy, Lebanon, Morocco, Spain, Tunisia and Turkey) and Argentina. The fig wax scale has more recently been found in the Austro Oriental region (Irian Jaya), Ethiopian region (Angola, Cape Verde Island, Zimbabwe), Malagasian region (Aldabra Island), Neotropical region (Antigua, Brazil, Guyana, Puerto Rico, Virgin Islands), Palaearctic region (Afghanistan, Azores Islands, Canary Islands, Corsica, Crete, France, Iraq, Madeira, Portugal, Saudi Arabia) (Ben-Dov 1993). Positive identifications in Florida have been made in Broward, Dade, Manatee, Palm Beach, Pasco and Pinellas counties.

HOST PLANTS: The fig wax scale has been reported on a broad range of host plants including the following families: Anacardiaceae (*Mangifera indica*, *Schinus terebinthifolius*), Annonaceae (*Annona cherimoya*, *A. muricata*, *A. squamosa*), Apocynaceae (*Nerium oleander*, *Thevetia peruviana*), Aquifoliaceae (*Ilex aquifolium*), Araliaceae (*Hedera helix*), Balsaminaceae (*Impatiens sultani*), Compositae (*Artemisia*), Convolvulaceae (*Convolvulus*, *Ipomoea batatas*), Euphorbiaceae (*Euphorbia longan*), Lauraceae (*Laurus nobilis*, *Persia americana*), Moraceae (*Ficus* sp., *Morus alba*, *M. nigra*), Musaceae (*Musa cavendishi*, *M. sapientum*), Myrtaceae (*Myrtus communis*, *Psidium guajava*), Palmae (*Chamaerops humilis*), Pittosporaceae (*Pittosporum tobira*), Platanaceae (*Platanus orientalis*), Proteaceae (*Grevillea robusta*), Rosaceae (*Crataegus vulgaris*, *Prunus dulcis*, *Pyrus communis*), Rutaceae (*Citrus aurantium*, *C. limon*, *C. paradisi*), Sapindaceae (*Litchi chinensis*, *Nephelium lappaceum*, *Sapindus saponaria*), Sebestenaceae (*Cordia myxa*), Strelitziaceae (*Strelitzia reginae*), and Vitidaceae (*Vitis vinifera*) (Ben-Dov 1993). It has also been found feeding on *Citrus sinensis* and *C. reticulata* in Greece (Argyriou and Mourikis 1981). In Florida, specimens of this scale have been identified on *Annona squamosa* (sugar apple), *Mimusops roxburghiana* (mimusops), *Phoenix roebelenii* (pygmy date palm), and *Ixora* spp.

BIOLOGY: The biology of the fig wax scale has not been studied in Florida but has been described on fig trees in Israel (Bodkin 1927). In general, adult females overwinter on twigs and produce eggs very early in the spring. The eggs hatch to crawlers which move to feed on leaves. After about one month, the crawlers molt to 2nd instar nymphs and migrate to the leaf petioles or to new shoots. Maturity is attained in the summer, and a new generation of crawlers is produced. These nymphs mature late in the fall, overwinter on the twigs, and repeat the cycle (Bodkin 1927). Swailem and Awadallah (1973) reported scales to be equally present on both upper and lower leaf surfaces on fig trees in Egypt.

ECONOMIC IMPORTANCE: The fig wax scale has been reported as a pest of citrus in Italy (Talhouk 1975). Infrequent major local infestations in the citrus-growing areas of Italy have been controlled with refined petroleum oils (Barbagallo 1981). Similar outbreaks occurring in the Aegean Islands, Greece, have been controlled by the application of oils in the summer. The presence of parasites [*Coccophagus lycimnia* Walker (Aphelinidae); *Scutellista cyanea* Motschulsky (Pteromalidae)] aid in keeping populations of the fig wax scale under control (Argyriou and Mourikis 1981).

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