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Authors: Blackwood, J. Scott, and Pratt, Paul D.

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NEW HOST AND EXPANDED GEOGRAPHIC RANGE OF STELLATE SCALE, *VINSONIA STELLIFERA* (HEMIPTERA: COCCIDAE: CEROPLASTINAE)

J. SCOTT BLACKWOOD AND PAUL D. PRATT

USDA/ARS Invasive Plant Research Laboratory, 3225 College Ave., Fort Lauderdale, FL 33314

Stellate scale, *Vinsonia stellifera* (Westwood), is a polyphagous wax scale with a distribution spanning across the tropics and subtropics of both the northern and southern hemispheres (Williams & Watson 1990). It has been reported to occur as far north as Virginia in the U.S. (Hamon & Williams 1984) and as far south as the Northern Territory of Australia (Qin & Gullan 1994). Jansen (1995) reported the occurrence *V. stellifera* in the Netherlands within a glasshouse environment. This insect feeds on a wide range of plant taxa and can occur in high densities on a single plant. As a result, it was considered a potential threat to several economically important plants in Florida (Hamon & Williams 1984).

We report the occurrence of stellate scale both on a new host, *Melaleuca quinquenervia* (Myrtaceae), and in a new locality, on the island of New Providence of the Bahamas (near the Nassau airport; N25.05827, W-77.45352). U.S. quarantine records document the interception of stellate scale on imports of *Eugenia* (Myrtaceae) from the Bahamas. However, to our knowledge a specific locality in the Bahamas has not been reported in the scientific literature for stellate scale.

The native distribution of the melaleuca tree, *M. quinquenervia*, extends along the coastal region of New South Wales and Queensland in Australia. Over the past century, *M. quinquenervia* has been introduced into the Bahamas and Puerto Rico, as well as into California, Hawaii, Texas, Louisiana and Florida in the U.S. for ornamental, revegetation and agroforestry purposes (Turner et al. 1998; Dray 2003). While *M. quinquenervia* has not become a pest in all areas it was introduced, it has been categorized as an invasive weed in south Florida, the Bahamas and Puerto Rico (Turner et al. 1998; Pratt et al. 2005).

Stellate scale can be easily identified by its star-shaped wax covering (Hamon & Williams

1984) (Fig. 1). We observed the scale while performing regular demographic surveys of *M. quinquenervia* on New Providence. Typical densities of *V. stellifera* observed on *M. quinquenervia* were ca. 10-15 nymphs and adults per leaf. However, no evidence of damage to these leaves as a result of the feeding was apparent, and it is doubtful that the scale will have a significant impact as a natural enemy against this exotic tree.

Simberloff & Von Holle (1999) cautioned that commensalistic and mutualistic relationships between invaders may accelerate the rate of invasion of exotic species and may serve to magnify the cumulative impacts of the invaders on native communities. If *V. stellifera* does have the potential to impact other, native or economically important plants when present in sufficient densities, the coupling of *V. stellifera* and *M. quinquenervia* could heighten the risk that scales will achieve the numbers necessary to inflict detrimental impacts on these other plants. Adding to this risk, stellate scale has been observed to utilize both the camphor tree, *Cinnamomum camphora* (Lauraceae) (Jansen 1995), and a congener (*Schefflera arboricola*) (Qin & Gullan 1994) of the Queensland umbrella tree, *S. actinophylla* (Araliaceae), as hosts. Both the camphor tree and the Queensland umbrella tree are invasive in Florida. Stellate scale has not yet been reported as an ecologically or economically important pest (Qin & Gullan 1994), but it should be monitored closely as the adventive ranges of *M. quinquenervia* and these other invasives expand.

SUMMARY

Stellate scale, *Vinsonia stellifera*, was observed utilizing *Melaleuca quinquenervia* as a host on New Providence of the Bahamas. This expands the known host and geographic ranges of this polyphagous and widespread scale insect.

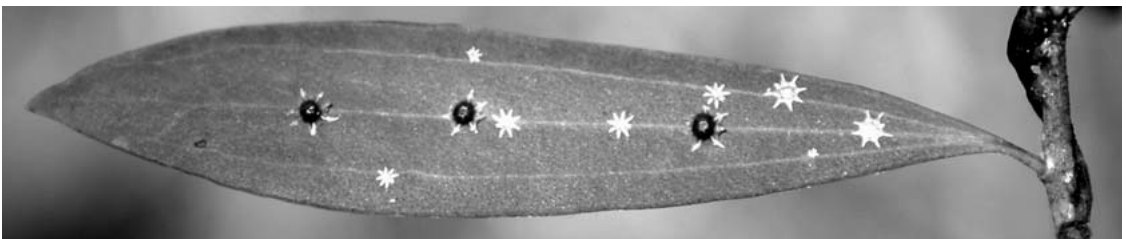


Fig. 1. Photograph of stellate scale, *Vinsonia stellifera*, on *Melaleuca quinquenervia*.

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