

## ***Tachardiella mexicana* (Comstock), the Mexican Lac Scale (Hemiptera: Kerriidae), a Pest of Legumes and Wax Myrtles in Florida<sup>1</sup>**

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**INTRODUCTION:** The Mexican lac scale, *Tachardiella mexicana* (Comstock) (Hemiptera: Kerriidae), is native to Mexico and Texas. This species was first discovered in Florida in 1985 at a theme park in Lake Buena Vista and a second population was discovered in 1987 at a nursery in Redlon (Seminole County) that is no longer in business. In 2006, a population was discovered in Fort Myers (Lee County), and a re-sampling of the area in 2010 revealed that the populations were established on the host trees. Prior to June 2010, all host records, including both previously published host records and unpublished host records maintained by the Division of Plant Industry (DPI), were from fabaceous plants such as *Acacia* spp., *Pitheleocelobium flexicaule*, *Ebenopsis ebano* and *Lysiloma* spp. However, in June 2010, a second population at Lake Buena Vista was discovered feeding on wax myrtle, *Myrica cerifera* (Myricaceae).

**BIOLOGY:** There are no published observations on this species. In Florida, very high densities were observed on the woody parts of the wax myrtle plant. The infested wax myrtle showed significant dieback in large shrubs, and the most heavily infested small shrubs were dead. All parts of the infested wax myrtles, surrounding plants and ground were covered with sooty mold.

**DESCRIPTION:** Adult female scales produce a high-domed ‘test’ or shell with four to six lobe-like projections that anchor the test to the plant surface (Figures 1–2). The test is hard and glossy with a reddish-orange tint around the edges, and darker toward the center. In some specimens, white string-like wax fiber extrusions project from the dorsum of the test, but these may break off. In heavy infestations, the tests of multiple females will develop into a single, aggregated mass such that the distinctive appearance of the individual tests is lost (Figure 3).

The test darkens as the scale matures. The female scale, which is a deep red color, lives inside the test and requires a special procedure to remove without damage. Proper identification requires that specimens be slide-mounted. University of Florida, Lee County IFAS, also recently published an online factsheet with illustrations on the Mexican lac scale population in Lee County that is infesting wild tamarind (*Lysiloma latisiliqua*) (Brown 2011).

This is the second of two lac scales known in Florida. In 1999, the lobate lac scale, *Paratachardina pseudolobata*, was discovered in Broward County, and is now widely distributed throughout South Florida on a wide variety of hosts (see <http://www.doacs.state.fl.us/pi/enpp/ento/paratachardina.html>). Lobate lac scale is easily distinguished from the Mexican lac scale by the former’s distinctive lobed, or bow tie-shaped test (Figure 4). Wax myrtle is also a common host of lobate lac scale.

**NATURAL ENEMIES:** The online scale database ScaleNet lists no natural enemy, but several parasitoids are recorded in the Universal Chalcidoidea Database (Noyes 2012) for the related species *Tachardiella larreae* (Comstock), also native to the Southwestern United States (Texas, Arizona) and Mexico.

**Aphelinidae:** *Marietta albocephala* Hayat

**Encyrtidae:** *Tachardobius nigricans* Timberlake, *Tachardobius vladimiri* Triapitsyn

None of the parasitoids are currently known from Florida

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**HOSTS:** *Acacia cornigera*, *A. pinetorum*, *Ebenopsis ebano*, *Lysiloma sabicu*, *L. latisillquum*, *Mimosa* sp. (Fabaceae); *Myrica cerifera* (Myricaceae).

**DISTRIBUTION:** Central to southern Texas. Arizona. Florida (Lee County, Orange County and Seminole County). Mexico, bordering Texas.

#### LITERATURE CITED

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**Figure 1.** Adult female tests of *Tachardiella mexicana* on wax myrtle. Photograph credit: Lyle Buss, UF.

**Figure 2.** Adult female tests of *Tachardiella mexicana* on wax myrtle. Photograph credit: Susan Halbert, FDACS-DPI.

**Figure 3.** Adult female tests of *Tachardiella mexicana*. Photograph credit: Lyle Buss, UF.

**Figure 4.** Adult female tests of *Paratachardina pseudolobata*. Photograph credit: Lyle Buss, UF.