

Sugarcane Lace Bug, *Leptodictya tabida*¹

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Introduction

The sugarcane lace bug was first described by Herrich-Schaeffer as *Monanthia tabida* from specimens collected in Mexico in 1839 and synonymized as *Leptodictya tabida* (Herrich-Schaeffer) by Champion in 1900 (Heidemann 1913). It was discovered on sugarcane, *Saccharum officinarum* L. in Palm Beach County, Florida, in July, 1990. A survey conducted shortly after the discovery of this pest in Florida showed that many sugarcane fields in Palm Beach, Hendry and Collier counties were infested with *L. tabida*. Several hundred acres of sugarcane in Palm Beach County displayed red russeting, with more than 100 adults and nymphs of *L. tabida* found on some leaves (Hall 1990, 1991). This insect could become a major pest of sugarcane in Florida, perhaps more so during dry years.

Distribution

The sugarcane lace bug occurs in numerous countries including Costa Rica, Cuba, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Venezuela and the United States (Hawaii, Texas and

Florida) (Chang and Ota 1986, Hall 1991, and Metcalfe 1966).

Description

Adult oblong, flat, length 3.8 mm, width across the widest part of elytra 1.6 mm. Head short with five slender spines. Eyes small, globular, reddish and strongly faceted. Antennae yellowish, long and thin. Pronotum narrowed anteriorly, the disk barely convex, with three linear, low carinae, interspaces finely punctured. The elytra are transparent, elongate oval in shape, and extend far beyond the abdomen.

The nymph is different from adult in appearance. The nymph is oblong, rather flat, yellowish and densely covered with erect white spinules (Heidemann 1913).

Biology and Host Plants

This lace bug completes a generation from egg to adult in 20 to 30 days during the summer in Hawaii (Chang 1985). Under laboratory conditions of 27 degrees C in Gainesville, Florida, the egg stage lasted 16 to 20 days. The nymphs molt five times and mature in about 15 days. Eggs are very small and are deposited into parenchyma cells on the underside of

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Figure 1. Sugarcane russeted by the the sugarcane lace bug, *Leptodictya tabida* (Herrich-Schaeffer). Credits: Division of Plant Industry

the leaf (Chang 1985). According to Chang 1985, the sugarcane lace bug has been reported on corn, *Zea mays* L.; Guinea grass, *Panicum maximum* Jacq.; Johnson grass, *Sorghum halepense* (L.) Pers.; barnyard grass, *Echinochloa crus-galli* (L.) Beauvois; bamboo; sugarcane, *S. officinarum* and teosinte, *Zea mexicana* (Schrad.) Kuntze.

Natural Enemies

Natural enemies of *L. tabida* have not been intensively studied and only *Coleomegilla maculata* (DeGeer) (Coleoptera: Coccinellidae) was listed as its predator (Chang 1985). During a trip to Central and South America in 1986, Hawaii Department of Agriculture Entomologist, Marianna Early, found eggs of *L. tabida* were parasitized by *Erythmelus* sp. in Costa Rica and Venezuela (M. Early, unpublished report 1986). An attempt to introduce this parasite from Venezuela to Florida was done by F.D. Bennett,



Figure 2. Adult and nymph of the sugarcane lace bug, *Leptodictya tabida* (Herrich- Schaeffer). Credits: Division of Plant Industry



Figure 3. A colony of sugarcane lace bug, *Leptodictya tabida* (Herrich- Schaeffer), nymphs on a sugarcane leaf. Credits: Division of Plant Industry

D.G. Hall and Ru Nguyen in May 1991. However, it was not successful. The F_1 generation was produced

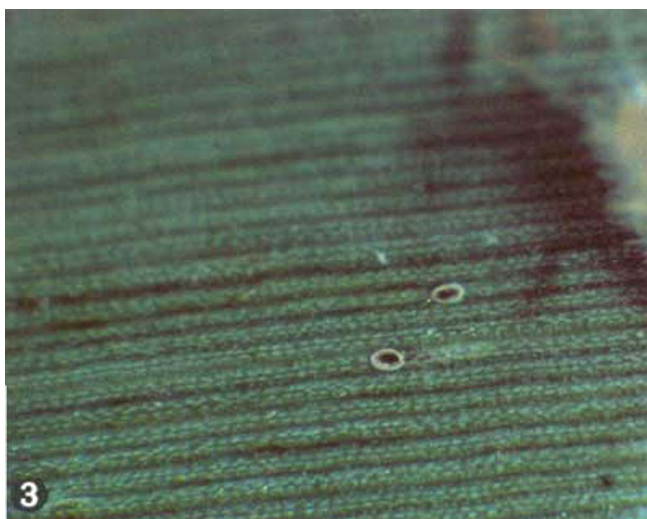


Figure 4. Eggs of the sugarcane lace bug, *Leptodictya tabida* (Herrich-Schaeffer). Credits: Division of Plant Industry

in the Quarantine Laboratory in Gainesville but no F₂ progeny were obtained.

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