

Tabebuia leafhopper, Rabela tabebuiae (Dozier)

(HOMOPTERA: CICADELLIDAE)¹

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SYNONYMY:

Protalebra tabebuiae Dozier 1927:260; Protalebra bicincta Osborn 1928; Protalebra tabebuiae Osborn 1929; Rabela tabebuiae Young 1952.

INTRODUCTION: The tabebuia leafhopper, Rabela tabebuiae (Dozier), is an antillean species that has become established in southern Florida. It is a leaf-feeding pest of trumpet trees, Tabebuia spp., African tulip tree, Spathodea campanulata Beauvois, and several other kinds of bignoniaceous plants popular as ornamentals. The first continental U. S. record, as determined by D. A. Young, Jr., was from specimens collected on an African tulip tree in Miami, Florida, April 4, 1956, by C. F. Dowling, Jr. Numerous Florida collections in the intervening 25 years indicate that R. tabebuiae is a common pest on favored hosts primarily in Dade and Broward counties.

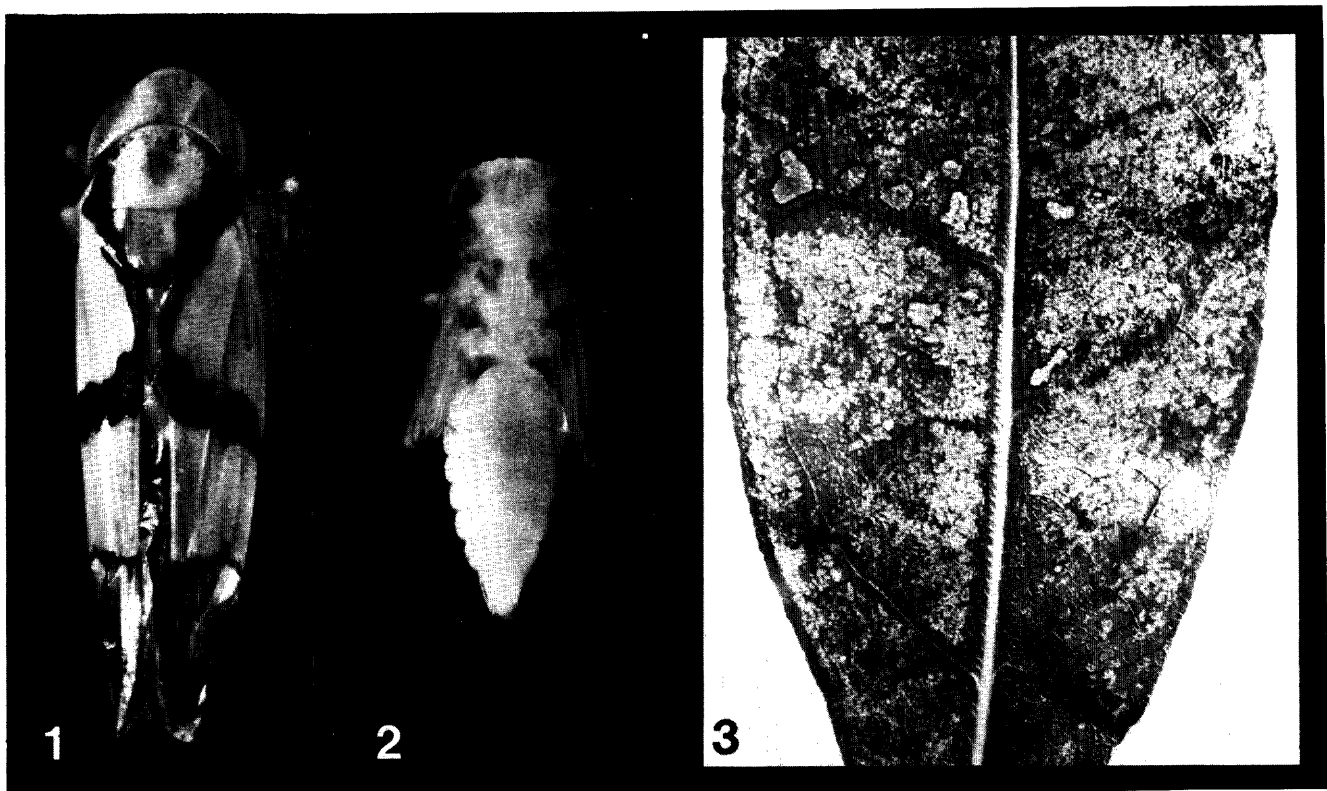


Fig. 1. Adult Rabela tabebuiae (Dozier) (X32). Fig. 2. Mature nymph of R. tabebuiae (X28). Fig. 3. Leaf of Cuban pink trumpet tree, Tabebuia pallida (Lindl.) Miers, showing many small white spots resulting from feeding by the tabebuia leafhopper, R. tabebuiae (X2). Photographs by Jane Windsor, FDACS, DPI, Gainesville; negative numbers 702158-1, 702253-12, and 701851-8.

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DESCRIPTION: Adult as in Fig. 1. Caldwell and Martorell (1952) reported the length as 3-3.7 mm. Florida specimens as measured by the author vary from 2.5-3 mm; width 0.75 mm. Dorsally, adults mostly light yellow with brownish markings, ventrally whitish. Most specimens have a yellowish orange stripe extending medially from the head across most of the prothorax; lateral portions of prothorax orange-brown; scutellum brown laterally. Forewings with 2 transverse bands, the 1st a conspicuous transverse brown stripe near midsection, continued anteriorly as narrow brown border along commissure and margin opposite scutellum; the other transverse band slender and along cross-veins basad of apical cells; posterior 1/3 of forewing pale membranous except some cells partially embrowned and/or with brown borders. Nymph (Fig. 2) whitish without noteworthy markings.

IDENTIFICATION (FIELD): A small yellowish leafhopper having prominent transverse band across midsection (seen with hand lens) and collected from a favored host such as Tabebuia is reasonably certain to be this species. Another common and colorful typhlocybine leafhopper is Protalebrella brasiliensis (Baker). It probably is the species most apt to be confused with R. tabebuiae in Florida, but it occurs primarily on herbs. R. tabebuiae occurs on the underside of leaves of woody bignoniaceous plants.

IDENTIFICATION (LAB): The only other known species of Rabela is R. australis Young, from Brazil. Detailed descriptions and illustrations were given by Young (1957), who presented key differences for both species and provided a key to the genera in the tribe Alebrini, including Rabela, Protalebrella, Protalebra, and others. The wings and male terminalia of R. tabebuiae were illustrated by Young (1952). Caldwell and Martorell (1952) also prepared keys and illustrated the male terminalia and dorsal markings of the adults of each Puerto Rican species of Protalebra, which included tabebuiae at that time.

HOSTS: Bignoniaceae. Most Florida records of Rabela tabebuiae have been from trumpet trees, Tabebuia spp., and African tulip tree, Spathodea campanulata Beauvois. The number 1 host in Florida is Cuban pink trumpet tree, Tabebuia pallida (Lindl.) Miers. This tree is also the most common host in Puerto Rico where Dozier (1927) reported it widely used as a shade tree, and its wood of economic importance for construction, furniture, musical instruments, and a substitute for boxwood in engraving. Martorell (1947) listed common names for T. pallida as roble, roble blanco, West Indian boxwood, and white cedar. Another common host in Florida is the tree-of-gold or silver trumpet tree, Tabebuia argentea (Bur. & K. Schum.) Britt. Also in Florida, nymphs and adults of R. tabebuiae have been collected from pink poui, Tabebuia rosea (Bertol.) DC. (= T. pentaphylla); sausage-tree, Kigelia pinnata (Jacq.) DC.; radermachera, Radermachera sinica (Hance) Hemsl.; common calabash, Crescentia cujete L.; and black calabash, Enallagma latifolia (Mill.) Small.

ECONOMIC IMPORTANCE: Dozier (1927) reported that Tabebuia pallida was so hardy that it is able to support large numbers of leafhoppers without apparent injury. Martorell (1947) reported that the tabebuia leafhopper's feeding caused "intense chlorosis on foliage of trees" at localities in Puerto Rico. Wolcott (1950) described injury as a "mosaic-like pattern on the leaves that finally blots out most of the normal dark green and causes some of them to drop long before they would normally do so". In Florida the speckled leaves (Fig. 3) could reduce salability of nursery stock. Also, owners of valuable shade and ornamental trees might object to leaves sometimes becoming so heavily spotted as to produce whitened or yellowed leaves leading to premature leaf drop.

DISTRIBUTION: In Florida nearly all records of R. tabebuiae are from Dade and Broward counties. Single records are available from Lee, Manatee, and Palm Beach counties. Apparently these are the only U. S. records. Since hosts have a wider known distribution than the leafhopper, the leafhopper probably occurs in and will be collected and reported from additional localities. Elsewhere it has been reported primarily from Puerto Rico, where it is abundant. Caldwell and Martorell (1952) listed R. tabebuiae (then in Protalebra) from Caja de Muertos Island, St. Thomas, Virgin Islands, as well as Puerto Rico. Young (1952) added Cuba, and then in 1957 he published the Miami, Florida record.

SURVEY AND DETECTION:

1. Look for spotted leaves of trumpet trees, Tabebuia spp., and other hosts in the Bignoniaceae. White spots show through to upper leaf surface. Pale spots indicate leafhopper activity.
2. Look on underside of spotted leaves for small adults and nymphs. Collect by using aspirator, net, or shaking into plastic bag. Submit specimens in pill-box, or vial containing 75% isopropyl alcohol, or in a closed plastic bag containing paper toweling to absorb any excess moisture and to cushion specimens in transit. If unsure of host, submit appropriate plant parts for identification.
3. This leafhopper has been collected in all months of the year in its range extending from the Puerto Rican area to southern Florida.

CONTROL: If control measures are required, University of Florida extension entomologists suggest the following: Malathion 57% E.C., 1 teaspoon/gal. water or 1 pint/100 gal.; Sevin 50% W.P., 2 tablespoons/gal. water or 2 pounds/100 gal. of water. Follow label directions.

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