Thrips (Thysanoptera) New to Florida: III. Thripidae: Thripinae (*Chaetanaphothrips, Danothrips*)[1]

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INTRODUCTION: The two previous circulars in this series on new thrips introductions to Florida covered two genera in the subfamily Panchaetothripinae, *Elixothrips* and *Retithrips* (Hamon and Edwards 1994), and two genera in the Thripinae, *Psydrothrips* and *Asprothrips* (Edwards 1995). This circular is the second to report on the subfamily Thripinae. The species reviewed below have both been reported as pests of banana, as well as various ornamental plants (Muruvanda 1986; Palmer *et al.* 1989).

1. *Chaetanaphothrips leeuweni* (Karny)

This thrips was first collected by Dakshina R. Seal (University of Florida, IFAS-TREC) on *Crotalaria spectabilis* Roth, 20 April 1993, in Homestead, Dade County, Florida. Other reported hosts are: *Capsicum* sp., grass, *Ipomoea* sp., *Melicoccus bijugatus* Jacq., *Musa* sp., and *Tegetes* sp. (Mitri and Stannard 1962).

With the discovery of *C. leeuweni* (also known as *C. clarus* (Moulton): Palmer *et al.* 1989) this brings to three the number of species of this genus known from Florida. The other two are *C. signipennis* Bagnall and *C. orchidii* (Moulton).

ECONOMIC IMPORTANCE: The economic importance is unknown and only damage to banana ("banana rust") has been reported (Palmer *et al.* 1989).

DISTRIBUTION: The previously known distribution of *C. leeuweni* is India, Java, Guam, Marshall Island, Kiribati, Hawaii, Jamaica, Puerto Rico, Guadeloupe, St. Lucia, Trinidad, and Guyana (Pitkin 1977; Bhatti 1978).

DESCRIPTION: Body color is uniformly yellow, except for brown on the distal part of antennal segment VI, all of VII, and all of VIII (Mitri and Stannard 1962). Distinctive characters include the short dark crossband in the forewing (Fig. 1), short sense cones on antennal segments III and IV (Fig. 2), and the presence of a single short posteroangular seta on the pronotum (Fig. 3) (Bhatti 1978). Abdominal tergite VIII (Fig. 4) has a stipple-like area extending around each spiracle and anteriorly to near the margin of the segment. This stipple-like area does not extend medially as in *C. signipennis* (Palmer *et al.* 1989).

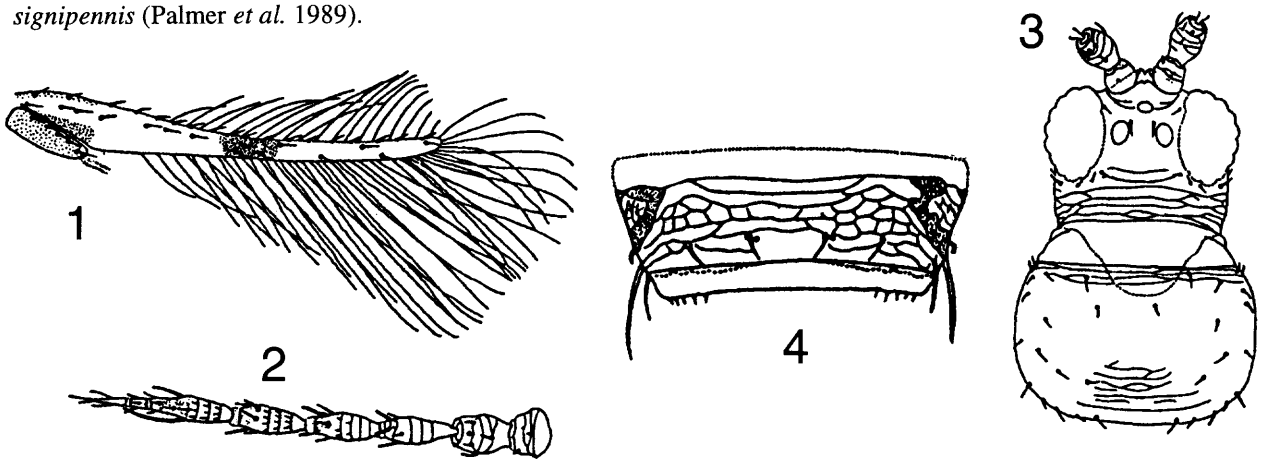

Fig. 1. Drawing of *Chaetanaphothrips leeuweni* wing (from Mitri and Stannard 1962). Fig. 2. Drawing of *C. leeuweni* antenna (from Mitri and Stannard 1962). Fig. 3. Drawing of *C. leeuweni* head and pronotum (from Mitri and Stannard 1962). Fig. 4. Drawing of *C. leeuweni* abdominal tergite VIII (from Mitri and Stannard 1962).

2. *Danothrips trifasciatus* Sakimura.

This species was collected by Dr. Carl Childers (IFAS) on *Citrus x paradisi* Macf., 22 October 1992, in LaBelle, Hendry County, Florida. Specimens were determined by Sueo Nakahara, Research Entomologist, U.S. Department of Agriculture - Systematic Entomology Laboratory (USDA-SEL).

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The preferred host is apparently *Anthurium andraeanum* Andre (Sakimura 1975). Other recorded hosts are: *Alpinia purpurata* (Vieill.) Schum., *Bougainvillea* sp., *Costus* sp., *Ipomoea alba* L., *Melicoccus bijugatus* P. Browne, *Musa* sp. (banana), *Petroselinum crispum* (Mill.) Nyman ex A.W. Hill (parsley), *Paspalum orbiculare* (G. Forst.) (=*Paspalum scrobiculatum* L.), *P. conjugatum* Berg., *Zea mays* L. (young corn leaves), and *Zingiber zerumbet* (L.) Sm. (Sakimura 1975; Bhatti 1980).

ECONOMIC IMPORTANCE: The economic importance has not been well documented, but it has been reported to severely damage bananas and anthuriums (Sakimura 1975; Bhatti 1980).

DISTRIBUTION: This thrips is probably native to the Philippines, and has been spread by the importation of ornamental plants, first to Hawaii (Sakimura 1975) and now to Florida. Other known distribution includes Indonesia, St. Vincent, and Puerto Rico (Bhatti 1980).

DESCRIPTION: *Danothrips trifasciatus*, like *Chaetanaphothrips signipennis* and *C. orchidii,* is characterized as being yellow-bodied with banded wings and long slender antennae. These are the primary species present in Florida that prefer anthuriums as host plants. The antennae (Fig. 5) of *D. trifasciatus* have fine slender sense cones on segments III and IV. Cephalic and pronotal setae are minute to sub-minute; however, the posteroangular setae are moderately developed (Fig. 6) with the outer setae shorter. The forewings (Fig. 7) have three grayish-brown bands, with four setae on the hind vein. Tergite VIII has the stippled area not greatly enlarged around the spiracle (Fig. 8) and lacks a posteromarginal comb (Sakimura 1975).

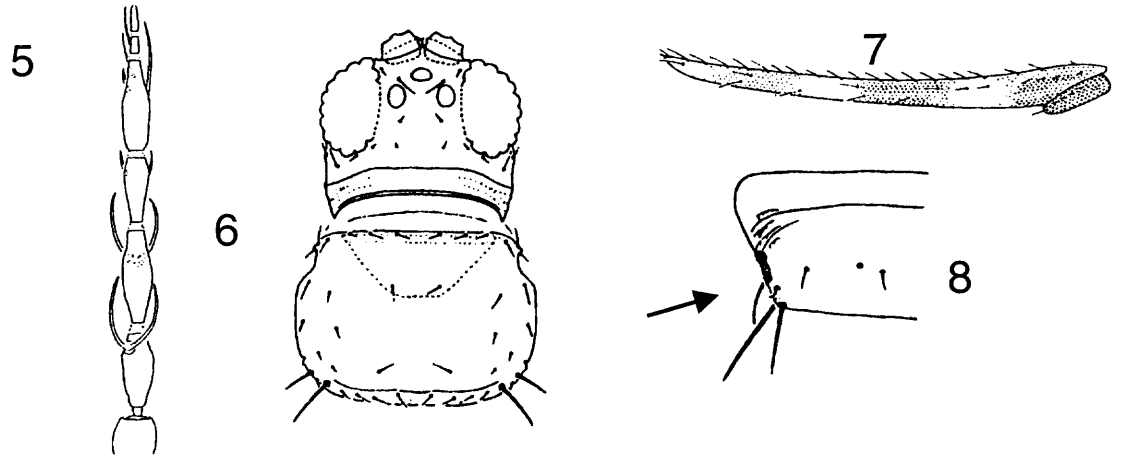

Fig. 5. Drawing of *Danothrips trifasciatus* antenna (from Sakimura 1975). Fig. 6. Drawing of *D. trifasciatus* head and prothorax (from Sakimura 1975). Fig. 7. Drawing of *D. trifasciatus* forewing (from Sakimura 1975). Fig. 8. Drawing of *D. trifasciatus* tergum VIII showing small stippled area near spiracle (from Sakimura 1975).

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