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# Thrips (Thysanoptera) New to Florida: IV. Thripidae: Thripinae (*Baileyothrips, Bolacothrips*)[1]

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**INTRODUCTION:** This is the fourth in a series of circulars on new thrips introductions to Florida. Both species were identified by Steve Nakahara, Research Entomologist, U.S. Department of Agriculture - Systematic Entomology Laboratory (USDA-SEL). Each is a new continental United States record.

**1. *Baileyothrips limbatus* (Hood)**

The only record of this species, a single specimen, was collected by Galen Frantz on *Chamaesyce hirta* (L.) Millsp.(= *Euphorbia hirta* L.) (pillpod sandmat), 12 August 1993, at Palm Beach, Palm Beach County, Florida. This thrips was originally described as *Anaphothrips limbatus* (Hood 1935).

Known hosts include *Chamaesyce hirta*, *Chamaesyce hyssopifolia* (L.) Small (=*Euphorbia brasiliensis* Lam.) (hyssopleaf sandmat), and *Desmodium* sp. (beggartick) (Hood 1935; Mound and Marullo 1996). The preferred hosts seem to be species of *Chamaesyce*, formerly included in *Euphorbia*.

**ECONOMIC IMPORTANCE:** A potential host plant for this species could be poinsettia (*Euphorbia pulcherrima* Willd. ex Klotzch); however, it has not been reported from poinsettia production areas, and it is not considered to be a pest species.

**DISTRIBUTION:** This species was described from Panama (Hood 1935), and is now known from Costa Rica, Guatemala, Trinidad, Jamaica, Hawaii (Sakimura 1985; Mound and Marullo 1996), and Florida. The continental U.S. record was documented by Nakahara and Hamon (1993).

**DIAGNOSIS:** The genus *Baileyothrips* can be distinguished from other genera with numerous abdominal microtrichia by the combination of trichomes on antennal segments III and IV; straight posterior fringe cilia with anterior fringe cilia present on the forewings; metasternal furca lacking spinula; abdominal sternites with accessory setae; abdominal tergite X divided; and 4-5 posteromarginal setae on the intermediate abdominal sternites.

There are only two species in this genus, *B. arizonensis* (Morgan) from the southwestern United States and northern Mexico, and *B. limbatus* (Hood) originally from Central America. They can be separated by the following characters: *B. arizonensis* has abdominal tergites II-V with microtrichia on submarginal sculpture lines; the body is light yellowish brown (lacking grayish brown markings); and antennal segments IV-V are grayish brown except pale at the bases. In comparison, *B. limbatus* has abdominal tergites II-V with microtrichia indistinct or absent; the pronotum with grayish brown submarginal spots in a longitudinal row on each side; the thorax with grayish brown patches; and antennal segments IV-V with the proximal half pale (with the base of VI occasionally yellow).

**Fig. 1.** Female *Bolacothrips striatopennatus*. Photography credit: Avas B. Hamon.

**2. *Bolacothrips striatopennatus* (Schmutz)**

A total of six specimens of this species was collected from four different localities in the U.S. The first record was of two specimens taken by Galen Frantz (Glades Crop Care, Inc.) from a sugarcane sheath, 16 June 1987, Hendry County, Florida. The remaining specimens were taken from water pan traps. One was taken 28 September 1990 in Decatur County, Georgia (collector unknown). Two specimens were taken by G. Frantz on 17 October 1990, Charlotte County, Florida, and

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another by G. Frantz on 22 October 1990, Lee County, Florida. Originally described as *Thrips striatopennata* (Schmutz 1913), *B. striatopennatus* has been known under the following synonyms: *Bolacothrips orientalis* (Priesner 1935) *Bolacidothrips orizae* (Moulton 1942), and *B. oryzae* (sic) (Sakimura 1958).

Known hosts include *Allium* sp. (an onion), *Axonopus* sp. (a carpetgrass), *Ficus* sp. (a fig), *Oryza sativa* L. (rice), *Panicum maximum* Jacq. (Guinea grass), *Saccharum officinarum* L. (sugarcane), *Triticum aestivum* L. (wheat), *Zea mays* L. (maize, corn) and an undetermined *Graminae* (a "grass").

**ECONOMIC IMPORTANCE:** Members of this genus have not been reported as causing crop damage, even though they occur on economic crops such as corn, rice, sugarcane and wheat.

**DISTRIBUTION:** First described from Sri Lanka (Schmutz 1913), it is now also known from Cambodia, Guam, Hawaii, India, Indonesia, Malaysia, Philippines, Taiwan (Bhatti 1983; Moulton 1942; Sakimura 1958) and Florida. It does not appear to have been documented previously for the continental United States.

**DIAGNOSIS:** Bhatti (1983) redescribed and illustrated the species. This genus resembles *Plesiothrips* in having 7-segmented antennae, the head prolonged anterior to the eyes, and abdominal tergites V-VIII each with a pair of ctenidia. *Plesiothrips* has a poorly developed ovipositor and trichomes on antennal segments III and IV, whereas *Bolacothrips* has a well-developed ovipositor and simple sense cones on antennal segments III and IV. The forewing has two gray-brown cross bands, and the last three antennal segments are brown (Fig. 1). Both genera infest assorted grasses.

## LITERATURE CITED


**Bhatti, J. 1983.** Revision of *Thrips* species described by Schmutz (Insecta: Thysanoptera: Thripidae). Annals of the Naturalhistoriche Museum in Wien 84: 479-507.

**Hood, J. D. 1935.** Eleven new Thripidae (Thysanoptera) from Panama. Journal of the New York Entomological Society 43: 143-171.

**Moulton, D. 1942.** Thrips of Guam. Bernice P. Bishop Museum Bulletin 172: 7-16.

**Mound, L. A., and Rita Marullo. 1996.** The Thrips of Central and South America: An Introduction (Insecta: Thysanoptera). Memoirs on Entomology, International, Volume 6. Associated Publishers, Gainesville, Florida. 487 p.

**Nakahara, S., and A. B. Hamon. 1993.** Native or naturalized plants. Florida Department of Agriculture & Consumer Services, Division of Plant Industry, Gainesville, Entomology Section, Tri-Ology 32(6): 6.

**Priesner, H. 1935.** New or little known Oriental Thysanoptera. Philippine Journal of Science 57(3): 351-375.

**Sakimura, K. 1958.** *Bolacidothrips evittatus* sp. nov. from Okinawa, with note on the genus *Bolacidothrips*. Mushi 31(9): 73-78.

**Sakimura, K. 1985.** Notes and Exhibitions. Some new thrips records for Hawaii. Proceedings of the Hawaiian Entomological Society 25(1): 30.

**Schmutz, K. 1913.** Zur kenntnis der Thysanopterenfauna von Ceylon. Sitzungsberichte der Akademie der Wissenschaften in Wien 122: 991-1089.