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Thrips (Thysanoptera) New to Florida: II. Thripidae: Thripinae (*Psydrothrips, Asprothrips*)[1]

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INTRODUCTION: The first circular in this series on new thrips introductions to Florida documented two species of the subfamily Panchaetothripinae (Hamon and Edwards 1994). This circular is the first of several to report on the subfamily Thripinae. Although neither species of thrips reported here is listed in the CIE guides to insects of importance to man (Palmer *et al.* 1989), both appear to be of potential importance to the nursery industry, and one is of potential importance to the citrus industry in Florida.

1. *Psydrothrips luteolus* Nakahara and Tsuda

This thrips was collected first by Cristine M. Murphy (FDACS-DPI) on *Spathiphyllum* sp., 29 July 1993, in Apopka, Florida. It was initially determined as *Psydrothrips* new species by Dr. S. Nakahara, Research Entomologist, U.S. Department of Agriculture - Systematic Entomology Laboratory (USDA-SEL). The species was described recently as *P. luteolus* (Nakahara and Tsuda 1994).

Known hosts include *Dieffenbachia* sp., *Epipremnum aureum* (Linden & André) Bunt, *Philodendron scandens* C. Koch & H. Sello subsp. *oxycardium* (Schott) Bunt, *Spathiphyllum floribundum* (Linden & André) N. E. Br., and *Syngonium podophyllum* Schott.

ECONOMIC IMPORTANCE: *Psydrothrips luteolus* causes considerable damage by feeding on new unfurled leaves of *Spathiphyllum*. The damage (Fig. 1) is a characteristic longitudinal area that can be seen when leaves are completely opened. Other ornamental plants, listed above, also have been found to be infested.

DISTRIBUTION: This species has been found previously in Hawaii (Nakahara and Tsuda 1994) and Brazil (S. Nakahara, personal communication). To date, Florida records of this thrips have been from Lake, Orange, and Volusia Cos.

DESCRIPTION: Distinguishing characters of *P. luteolus* are the pale yellow head, yellow thorax with light grayish-brown areas posterolaterally, legs yellow, long nine-segmented antennae with the distal segments brown (Fig. 2), and the forewings grayish brown, paler distally (Nakahara and Tsuda 1994). Tergite VIII of the abdomen of the female has a posterior comb of elongate microtrichia, as well as smaller microtrichia on the tergite (Fig. 3). The fore ocellus is nearly aligned with the anterior margin of the eyes. There are three pair of ocellar setae. Ocellar setae I are short and placed anterior of fore ocellus. Ocellar setae II are short and placed anterolaterad of fore ocellus near mesal margin of eyes. Ocellar setae III are long and placed laterad of fore ocellus (Nakahara and Tsuda 1994). The pronotum has one pair of posteroangular setae developed.

2. *Asprothrips seminigricornis* (Girault)

This species was collected first by Barbara J. Wilder (FDACS-DPI) on *Schefflera arbicola* (Hayata) Hayata, 12 January 1995, in a greenhouse in Apopka, Florida. It was collected the following day in the same greenhouse by FDACS-DPI personnel Anthony N. Capitano and B. J. Wilder on *Codiaeum variegatum* (L.) Blume variety *pictum* (Lodd.) Müll. Arg. (Fig. 4). Specimen identifications were confirmed by S. Nakahara. Subsequent pesticide treatment within this greenhouse may have eliminated this thrips from the Florida fauna, but since it is not known how this thrips was introduced, populations may still be present in the state.

Other known hosts are *Citrus* sp. and *Polyscias guilfoylei* (Bull) L.H. Bailey, also known as panax.

ECONOMIC IMPORTANCE: *Asprothrips seminigricornis*, referred to as black-tipped thrips in Gill (1991), causes silver russeting on citrus similar to that caused by the citrus rust mite. The thrips is found primarily on the north side of trees and in other shaded areas. It damaged fruit in a citrus grove in California (Gill 1991). Although this thrips has not been mentioned previously as a serious pest, it is a potential threat to the fresh fruit industry.

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DISTRIBUTION: The species was originally described from Australia in the genus *Euthrips*, then subsequently described under different names: *Scirtothrips antennatus* Moulton in Hawaii, where it was found on panax hedges, and *Asprothrips raui* Crawford in New York, where it was found in a greenhouse. The most recent previous record was from California (Gill 1991).

DESCRIPTION: The first records of this species in Florida were mistakenly identified in the field as *Psydrothrips luteolus* due to the superficial resemblance to that species (overall pale yellow color with the dark-tipped antennae). However, *A. seminigricornis* has only 8 segments in the antennae, and these are much less elongate than those of *P. luteolus*. The last four antennal segments are brown (Fig. 5). Other differences from *P. luteolus* for *A. seminigricornis* include the lack of elongate prothoracic setae, pale wings with few setae on the veins, and the presence of an elongated lyre-shaped metafurca (Fig. 5) which extends to the mesothoracic furca. Only two minute pairs of ocellar setae are present, one seta on either side of the fore ocellus about half way to the compound eyes, and the other pair between the posterior ocelli.

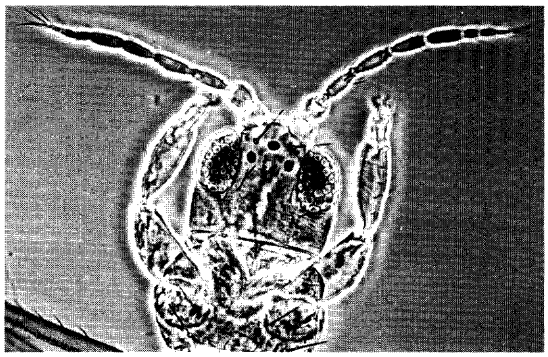
LITERATURE CITED:

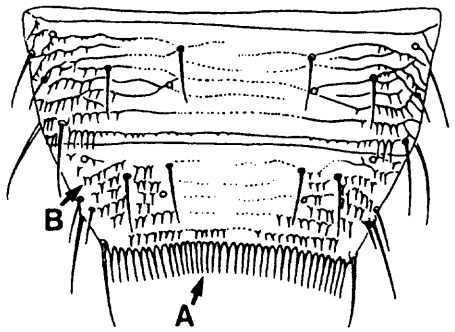
Gill, R.J. 1991. New county records: black-tipped thrips. California Plant Pest and Disease Report 10(3-4): 43-45.

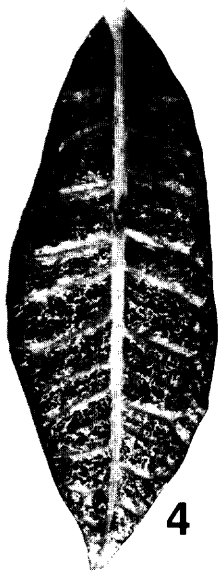
Hamon, A.B. and G.B. Edwards. 1994. Thrips (Thysanoptera) new to Florida: I. Thripidae: Panchaetothripinae. Florida Department of Agriculture and Consumer Services, Entomology Circular No. 365. 2 p.

Nakahara, S. and D. Tsuda. 1994. *Psydrothrips luteolus*, new species, from Hawaii and notes on *P. kewi* (Thysanoptera: Thripidae). Proceedings, Entomological Society of Washington. 96(1): 156-161.

Palmer, J.M., L.A. Mound, and G.J. du Heaume. 1989. Thysanoptera. CAB International Institute of Entomology, British Museum of Natural History, London. (CIE guides to insects of importance to man: 2). 74 p.







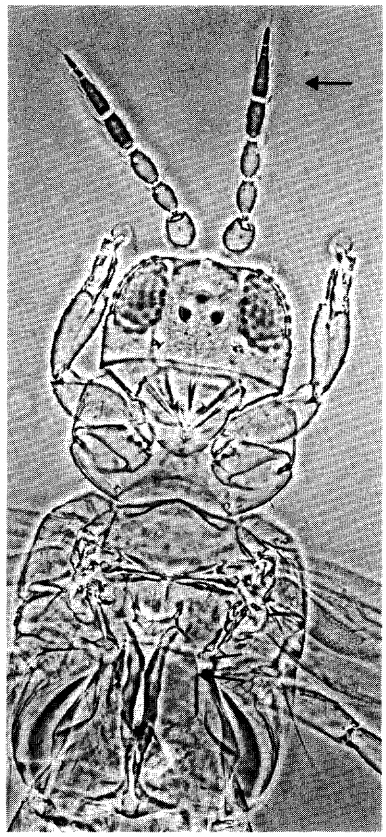


Fig. 1. *Psydrothrips luteolus* feeding damage on *Spathiphyllum* sp. Photography credit: Jeffrey W. Lotz.
Fig. 2. *P. luteolus* head and prothorax. Photography credit: Avas B. Hamon.
Fig. 3. *P. luteolus* abdominal tergites VII and VIII; A - comb, B - microtrichia (adapted from Nakahara and Tsuda 1994).
Fig. 4. *Asprothrips seminigricornis* feeding damage on *Codiaeum variegatum*. Photography credit: Jeffrey W. Lotz.
Fig. 5. *A. seminigricornis* head and thorax. Photography credit: G. B. Edwards.