

THE SPIDERLING PLUME MOTH
***MEGALORHIPIDA LEUCODACTYLUS* (FABRICIUS)**
(PTEROPHORIDAE) IN FLORIDA AND TEXAS

BY

D. L. MATTHEWS

The family Pterophoridae includes more than 1,139 species worldwide (Gielis 2003) with at least 167 species occurring in the Nearctic Region (Matthews 2006). The spiderling plume moth, *Megalorhipida leucodactylus* (Fabricius, 1794) [= *defectalis* (Walker, 1864)] is a common pantropical species. In the southeastern United States it is recorded from Florida and Texas.

Larvae feed on plants from several families (Matthews & Lott 2005) but occur most frequently on species of the four-o'clock family, Nyctaginaceae. The most common host in our region is *Boerhavia*, including *B. diffusa* L. (Fig. 1), and *B. coccinea* Mill., commonly known as spiderlings. Larvae bore into the unripe fruits to feed on the tender ovules, leaving behind empty fruit casings with a single hole visible (Fig. 1). Spiderling is a familiar lawn and garden weed, also found in unkept urban planters and cracks and seams of sidewalks and driveways. The clusters of tiny burgundy flowers are inconspicuous but the ribbed fruits, up to about 5 mm in length, are equipped with rows of sticky glandular trichomes, so they readily adhere to socks and pant legs. A single larva feeds on multiple *Boerhavia* fruits but does not feed on the leaves. In South Florida larvae also feed on beach peanut, *Okenia hypogaea* Schldl. & Cham. (Nyctaginaceae) (Fig. 2), in Dade and Broward counties, in this case skeletonizing the leaves.

Final instar larvae (Figs. 3-4) reach up to about 10 mm in length and are variably colored, usually with cream, olive and reddish markings, including dorsal and lateral stripes. Clear to brown primary and secondary setae are present. Most primary setae arise from light to moderately sclerotized tubercles and are long with hollow or inflated tips that exude a viscous, sticky secretion.

The pupa (Figs. 5-6), reaching about 8 mm in length, is light green and tan to brown, with darker markings on the head, thorax and appendages, and covered with rows of short to minute recurved setae. They are fastened to the slender branched inflorescence stalks of the host, anchored to a silken pad by two patches of hooked setae on the ventral surface of the caudal segment. The cast larval skin is stretched out behind and remains attached to the plant, as opposed to being bunched up and falling away as in most other genera.

Adults (Figs. 7-8), with wingspans about 12-18.5 mm, are easily found on or near the host, flying for short distances and perching on the host or nearby vegetation in the characteristic "T"-shaped resting posture of the family. Adults may also be collected at lights but are easily confused with a composite (Asteraceae) feeding species, *Dejongia californicus* (Walsingham) (Fig. 9). Both species are similar in size and maculation, and have the second lobe of the forewing with an acute apex and no tornus. *Megalorhipida leucodactylus* is distinguished by the smaller more obscure patch of dark scaling in the anal fringes of the hindwing third lobe, without scattered dark scales basad of the patch, as well as by subtle color and banding differences of the forewing, and by characters of the male and female genitalia (Matthews 1989).

This moth has multiple broods with both larvae and adults present most of the year in Florida, especially July through January, and occurring in the winter months, despite moderate freezes. A more detailed account of the life history and descriptions of the larvae and pupae are given in Matthews (2006).

Boerhavia occurs in many counties throughout the southeastern United States (USDA plants database, <http://plants.usda.gov/>), but available records for these moths include only two counties in Texas and 19 of Florida's 67 counties (Fig. 10). While adults from lights may be difficult to distinguish from related taxa, and should be confirmed with comparative material and/or genitalia dissection, I encourage our members to include state and county records for adults and immatures collected in association with *Boerhavia* in our zone reports.

Acknowledgments

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Literature Cited

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Life history of the spiderling plume moth, *Megalorhipida leucodactylus*: 1) larval hostplant, *Boerhavia diffusa*; 2) larval hostplant, *Okenia hypogaea*; 3) lateral view of final instar larva showing reddish lateral stripe and fruit with exit hole (arrow); 4) final instar larva showing lighter color just after molt; 5) pupa, lateral view; 6) pupa, dorsal view with larval skin stretched out below; 7) live freshly emerged adult clinging to pupal skin; 8) pinned adult; 9) wings of *Dejongia californicus*, illustrating differences in forewing maculation and dark scale tuft in anal fringes of hindwing third lobe.

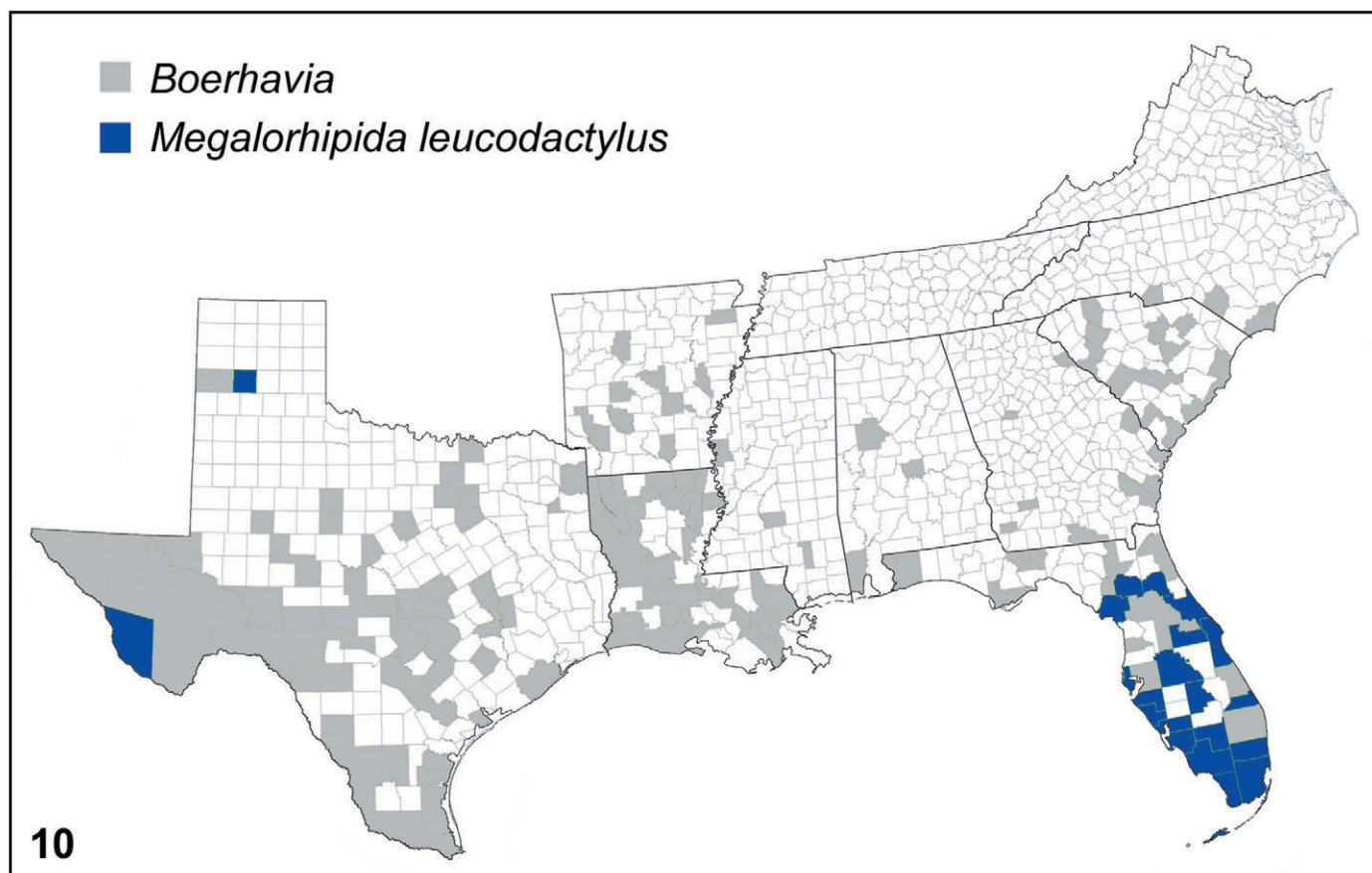


Figure 10. Distribution of *Megalorhipida leucodactylus* (blue) and hostplant, *Boerhavia* spp. (gray) in the southeastern United States. Hostplant county records according to data available on the UDSA plants website.

JAMES ADAMS' CONTINUING CHALLENGE (2009) FOR ARTICLES ON THE FOLLOWING TWO SUBJECTS:

- A) DANGERS OF LEPPING
- B) FIRST ENCOUNTERS

The challenge is \$10.00 per article up to \$100.00 for the year which will be added to the SL Society's Treasury.

For the year 2008 thus far, James has contributed a grand total of \$50.00 for 5 articles which means that the SL Society treasury may lose out on \$50.00 unless David Fine's article "*My Personal Greatest 'Hazard of the Field'*" passes mustard from James and he coughs up another \$10.00.

Members - please take up James' challenge for the coming year - 2009.

Many thanks - The Editor.

