Mexican Bromeliad Weevil Report
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J. Howard Frank[1], Ronald D. Cave[2], and Teresa Cooper[1]
[1]Entomology & Nematology Department, UF, Gainesville, FL
[2]Indian River Research & Education Center, UF, Ft. Pierce, FL

The production of *Lixadmontia franki* pupae improved significantly after the down period of the previous six months. Average weekly production of pupae was 110, with a maximum of 225. In July, 684 pupae were produced, in August 321 pupae, and in September 541 pupae. The trimestral total was 1,546, a decrease of 26% from the previous trimester. Inconsistency in availability of pineapple tops from grocery stores is making fly production difficult at times.

Only two field releases of *L. franki* were made during the reporting period. Both releases occurred at a new infestation site in the Fakahatchee Strand Preserve State Park, with 33 females and 28 males released on July 14 and 34 females and 24 males released on July 30. Hot weather, the need for flies to build up the laboratory colony, and the need for flies for laboratory research (by Teresa Cooper) did not allow for any releases during August and September. Depending on availability of flies, field releases may resume on October 27.

To date, 1,589 females and 1,424 males of *L. franki* have been released in the field. No recent recoveries of the parasitic fly from any of the release sites have been made.

Exploration to find potential biocontrol agents took place as follows: Belize - Cave 2002; Guatemala - Larson 2001, Frank and Giardina 2005, 2006, 2008 (and 2009); Honduras - Cave 1993 through 2002 as a resident, Frank and Salas 1998, Frank 1999, 2000; Mexico - Frank and Thomas 1992, Frank and Owen 2002; Panama - Frank and Muzzell 1994. The only potential biocontrol agent detected to date is *Lixadmontia franki* Wood & Cave (Diptera: Tachinidae) (http://www.fcla.edu/FlaEnt/fe89p239.pdf) a fly from Honduras and Guatemala.

Graduate student Teresa M. Cooper in 1996 completed MS research on a study of the destruction caused to Florida native bromeliads especially in the Myakka River State Park (Cooper, T.M. 2006. Ecological and demographic trends and patterns of *M. callizona* (Chevrolat), an invasive bromeliad-eating weevil, and Florida's native bromeliads [thesis, Univ Fla., Gainesville]). She wanted to continue studying toward a PhD degree, and wanted to make the fly *Lixadmontia franki* the subject of her study - in the hope that she could demonstrate the beneficial effect of this fly in beginning to suppress the weevil population in Florida, and to learn about some obscure aspects of the fly's behavior and development.

Teresa's draft PhD dissertation is called "An assessment of a biological control agent, *Lixadmontia franki* (Diptera: Tachinidae), to control *Metamasius callizona* (Coleoptera: Curculionidae), an invasive herbivore destroying Florida's native bromeliads." It consists of the following items: Titlepage; Copyright page; Dedication; Acknowledgments; Table of contents; List of tables; List of figures; Abstract; Ch 1. Introduction and literature review; Ch 2. Seasonality, abundance, and biological control of an invasive herbivore, *Metamasius callizona*, on its host plant, *Tillandsia utriculata*, in the Enchanted Forest Sanctuary; Ch 3. Release and monitoring of a potential biological control agent, *Lixadmontia franki*, to control an invasive bromeliad-eating weevil, *Metamasius callizona*, in Florida; Ch 4. Indirect assessment of host density by *Lixadmontia franki*, a parasitoid of bromeliad-eating weevils; Ch 5. Description of the immature life stages of *Lixadmontia franki*, an endoparasitoid of bromeliad-eating weevils; Ch 6. *Lixadmontia franki*: ovoviviparity versus viviparity; Ch 7. Conclusions; List of references; Biographical sketch. Her exit seminar and dissertation defense are scheduled for November 20.