

MEXICAN BROMELIAD WEEVIL REPORT

JANUARY 2011

Ronald D. Cave¹, Teresa M. Cooper¹, and J. Howard Frank²

¹Indian River Research & Education Center, UF, Ft. Pierce, FL

²Entomology & Nematology Department, UF, Gainesville, FL

Average weekly production of *Lixadmontia franki* pupae was 121, with a maximum of 164 and a minimum of 82. In October, 536 pupae were produced, in August 526 pupae, and in September 610 pupae. The trimestral total was 1,571 pupae.

Two shipments of fly pupae were received from Honduras. On 1 December 2010, 53 pupae and on 10 December, 23 fly pupae were received. Adult flies emerged from about 70% of the pupae. Of these adults, 17 females have mated and are at an age to be larvipositing. The females are being supplied with weevil infested pineapple tops on which to larviposit.

From 29 October to 8 November, Howard Frank, Dennis Giardina, Tim Andrus and Erwin Williams traveled to the coastal lowlands of Belize to search for alternative biological control agents to control the Mexican bromeliad weevil. 187 weevils, all *M. callizona*, were collected (mainly in *T. utriculata*) and carried to the quarantine facility at IRREC and monitored for parasitism. All larvae have pupated or reached adulthood. No weevils were parasitized. Adult weevils have been mated and paired. Eggs are being collected from mated females. Resulting adults will be added to our laboratory Mexican bromeliad weevil colony.

A fly release was made at the Oxbow Eco Center on 14 October 2010 (25 female and 18 male flies) and at Big Cypress National Preserve on 26 October 2010 (22 females and 20 males). No fly recoveries were made from either release.

The weevil temperature study (comparing the developmental time of the weevil from egg to pupa and from pupa to adult at different temperatures) has been completed at 3 temperatures (20, 25, and 30 °C). Eggs are being collected to test at 15 and 35 °C.

Publications:

No new publications.

Presentations:

FCBS Sanford Meeting. 9 October 2010. Controlling the Mexican Bromeliad Weevil. T. M. Cooper.

Potential Invasive Pests Workshop. 11 October 2010. Bromeliad-eating Weevils as Pests of Bromeliads. T. M. Cooper.

Big Cypress Research Symposium. 10 November 2010. Controlling the Mexican Bromeliad Weevil in the Everglades. T. M. Cooper.

Central Florida Bromeliad Society. 22 November. Controlling the Mexican Bromeliad Weevil. T. M. Cooper.

Entomological Society of America Annual Meeting. 16 December 2010. Morphology of the larval stages of the weevil parasitoid *Lixadmontia franki* (Diptera: Tachinidae). T. M. Cooper.