

MEXICAN BROMELIAD WEEVIL REPORT OCTOBER 2010

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The *Lixadmontia franki* colony improved greatly during this trimester. A second cage has been started, which means more growth is expected. Grocery stores are supplying good quantities of highly quality pineapple tops. The production of *L. franki* pupae was up 133% from the previous three months. Average weekly production of pupae was 104 (134 over last 7 weeks), with a maximum of 157 (more than double last trimester's maximum). In July, 288 pupae were produced, in August 537 pupae, and in September 527 pupae. The trimestral total was 1,352 pupae.

A new permit for importing *L. franki* and other bromeliad-eating weevil parasitoids from overseas was received in July.

A second fly release was made at Oxbow Eco Center on August 4. Fifteen females and 17 males were released. No flies were recovered from the sentinel plants that were placed in the field for monitoring. The next fly release at Oxbow is scheduled for October 15. A fly release is also scheduled for Big Cypress National Preserve on October 26.

The first study to look at the developmental time of *M. callizona* at different temperatures has been completed. The amount of tampering with the weevil's habitat to see when the weevil molted for each instar caused a mortality rate that was so high the data were unusable. A new study has been started, but we will watch only for the developmental time from egg to pupation and then to adulthood, rather than watching for the developmental time for each instar. This study will require several more months to complete.

Preliminary studies have begun to determine what substances attract *L. franki* flies to weevil-infested bromeliads. Early results show that the plants are emitting volatiles that are attractive to the fly.

Publications:

No new publications. One is still under review by Biological Control and one was submitted to Florida Entomologist in September. Two are still in preparation.

Presentations:

Greater Everglades Ecosystem Restoration. July 13. The Mexican bromeliad weevil (*Metamasius callizona*): Changing Florida's canopy. T. Cooper.

Annual meeting of the Florida Entomological Society. July 28. The effects of two host bromeliad species on a bromeliad-eating weevil, *Metamasius callizona*. T. Cooper.

Epcot Science Center. September 28. Mexican bromeliad weevil (*Metamasius callizona*) kills bromeliads in Florida. J.H. Frank