

MEXICAN BROMELIAD WEEVIL REPORT

APRIL 2011

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Production of pupae from the colony of *Lixadmontia franki* decreased dramatically for unknown reasons. There is no evidence of disease in the colony, adequate numbers of hosts are exposed to flies, no mass die-off of adults occurred, and temperature and humidity conditions have been continuously optimal. In January, 144 pupae were produced, in February 10 pupae, and in March 57 pupae. In their natural habitat in Honduras, this time of the year is when weevil and fly populations are lowest, so the low colony production may be a consequence of the fly's inherent periodicity. Fortunately, production improved in March more than 5-fold over February, so we look forward to an upswing during the next trimester.

Laboratory research on the Mexican bromeliad weevil has been progressing well. Tests include measuring the weevil's development time at various temperatures and the weevil's ability to survive at extreme temperatures. Initial data collection shows that the weevil egg, 3rd instar, and adult can tolerate freezing temperatures for short periods. The weevil will grow and develop between 15° C and 33° C, with decreasing developmental time as temperature increases. Data collection should be completed by the end of the next quarter.

Field trips were made to the Big Cypress National Preserve, Fakahatchee Strand Preserve State Park, Collier County State Park, and the Oxbow Eco Center to monitor the status of the bromeliad populations and to search for wild weevil larvae. Specimens of the Mexican bromeliad weevil were found and collected at all of the sites. Two Florida bromeliad weevil pupae were found in the Fakahatchee Strand. Mike Owen has been monitoring the bromeliad population at a site in the Fakahatchee Strand where the Mexican bromeliad weevil recently arrived. We will cooperate in this monitoring.

Publications:

No new publications, but two are in preparation.

Presentations:

Poster exhibited and R. Cave present to answer questions at the plant sale event in Broward Co. on 26 March.

Talks about the fall 2010 weevil-collecting trip to Belize were presented at meetings of the Gainesville Bromeliad Society (23 January), the Bromeliad Guild of Tampa Bay (21 February), and the Bromeliad Society of Broward County (21 March) by Howard Frank.

Talk at the Oxbow Eco Center by Teresa Cooper. Using Biological Control to Control Pest Organisms. 15 January.

Talk at the Bromeliad Guild of Tampa Bay by Teresa Cooper. Controlling the Mexican Bromeliad Weevil. 17 January.