

**MEXICAN BROMELIAD WEEVIL REPORT**  
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The *Lixadmontia franki* colony produced 307 puparia this quarter (193 in July, 41 in August, and 73 in September). The fluctuations in the population are decreasing; there was only one week in August when no puparia were collected. With a more stable fly population, we will be able to make more regular releases and to continue with some research which has been put on hold pending the recovery of the colony, including temperature studies on the fly and testing what volatiles the females flies cue in on to find host weevil larvae.

A fly release was made at the Fakahatchee Strand State Preserve on 31 August. Six gravid females were released. Sentinel pineapple tops (pineapple tops inoculated with weevil larvae) were placed in the field on 4 October to monitor for F2 flies. The tops will be retrieved on 20 October and the weevil larvae watched for parasitism.

Data for the temperature tolerance, developmental rate, and survival rate for the weevil have been collected and are in the process of being analyzed and reported.

We are still in the process of testing the weevil on Florida forms of *Tillandsia utriculata* versus Central American forms of *T. utriculata*. Preliminary data have been collected but is still in the process of being analyzed.

From 11 to 18 October Ron Cave, Howard Frank, Dennis Giardina, and Teresa Cooper will be going to Honduras to search for wild *L. franki* puparia to bring back to the lab. These specimens will bring new genetic material and increased fly numbers to our lab colony.

We have lost our supply of free pineapple tops that we had been getting from Winn Dixie stores because Winn Dixie is now having the fruit shipped in with the leafy tops cut off. There is still one store (Fresh Market) from which we can get pineapple tops, but they do not provide enough tops to maintain the weevil colony. We began a pineapple patch in an outdoor field plot as well as pineapple plants in pots in a greenhouse last year and are starting to use these plants to feed the colony.

#### Presentations

Presentation given by JH Frank at Leu Gardens for the Bromeliad Society of Central Florida: Hunting bromeliad-eating weevils in Belize. 26 Sept. 2011.

#### Publications

Cooper TM, Frank JH, Cave RD, Burton MS, Dawson JS, Smith BW. 2011. Release and monitoring of a potential biological control agent, *Lixadmontia franki*, to control an invasive bromeliad-eating weevil, *Metamasius callizona*, in Florida. Biological Control. Available online 28 August 2011 at: <http://www.sciencedirect.com/science/article/pii/S1049964411002489>