

Mexican Bromeliad Weevil Biological Control Report

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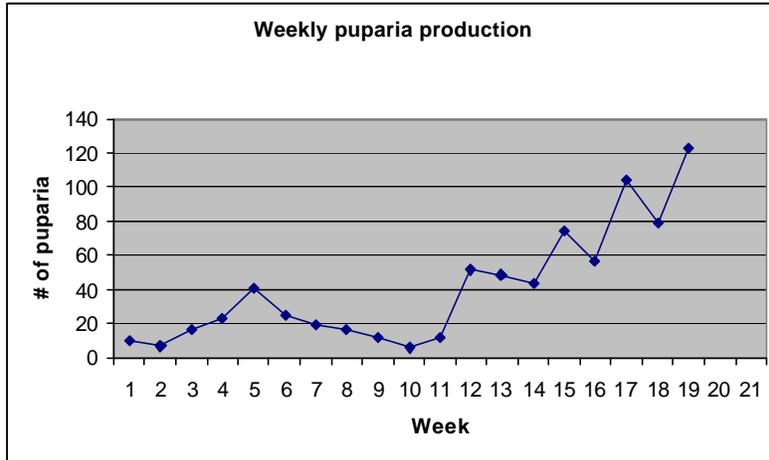
Ron Cave traveled to Honduras in early June to inspect the colony of *Lixadmontia franki* at the Panamerican School of Agriculture in Honduras and to meet with the personnel managing the fly colony and administrators. Production of puparia and new adult flies was somewhat reduced in April and May due to factors such as the time of year and the availability of hosts from the field. However, production began to increase in June and should soon reach adequate production levels by July. Honey enhanced with pollen is now provided in the fly cage with the expectation of improving female fly fecundity and production of puparia. The school administrator reported that \$6,656 (51%) of the annual budget (\$13,030) had been spent during the first seven months of the project year, so sufficient funds are available to cover expenses for the final five months.

Fly puparia shipped to Ft. Pierce totaled 290 in four consignments. Three shipments were sent by FedEx; adult emergence from these shipments averaged about 85%. Ron Cave brought 100 puparia from Honduras in June; adult emergence from these puparia was 99%.

The fly colony at the Biological Control Research & Containment Laboratory (BCRCL) in Ft. Pierce is growing quickly and producing large numbers of puparia weekly (see graph). Weekly puparia production reached a maximum of 123. We have been successful in finding Publix stores that provide us with large quantities of pineapple crowns to maintain a large weevil colony and expose large numbers of weevil larvae to flies. There are now two cages with adult flies for parasitizing hosts. One cage consistently maintains a population of over 100 adults.

Permits for field release of *L. franki* were issued by the USDA Animal and Plant Health Inspection Service (APHIS) and the Florida Department of Agriculture and Consumer Services. Petitions for authorization to release in the Big Cypress National Preserve, Loxahatchee National Wildlife Refuge, and the Enchanted Forest are being processed. Permission for release was granted at the Northwest Equestrian Park in Hillsborough Co. On June 29, 27 female flies and 29 male flies were released at 9:30am in this park. One television and one newspaper reporter were present to record the event. Sentinel pineapple crowns with weevil larvae will be placed at the release site in six weeks, remain in the field for two weeks, then returned to the laboratory for detection of parasitism which would indicate reproduction by the fly in the field and establishment of a breeding population.

A talk on the Mexican bromeliad weevil biological control project was presented to the Florida Native Plant Society Eugenia Chapter in Vero Beach.



Weekly production of puparia of *Lixadmontia franki* as of 6/29/07 at the Biological Control Research & Containment Laboratory, Ft. Pierce.

Pineapple crowns infested with weevil larvae and exposed to flies

Fly larva emerging from weevil larva

Ron Cave and Howard Frank releasing *Lixadmontia franki* at the Northwest Equestrian Park in Hillsborough Co.