Project Update: November 2011

Goal I. Clarify and improve the systematic knowledge of Gambusia fishes in 25 localities along the Cuban archipelago.

Activities related to goal I, completed so far:

1. We carried out three field trips to eastern part of Cuban archipelago to sample a wide distribution area of *Gambusia* fishes. Fish collection was made in nine localities including both mountains as lowland rivers (35% of total proposed)
2. Jointly with fish collections, we identified any evident threats to the native populations and recorded water parameters like pH, Salinity, Temperature, Conductivity, etc.
3. Samples of collected specimens of *Gambusia* (20-30 individuals) belonging to different sampled localities was preserved in alcohol 96% to DNA analysis.
4. Living individuals and their habitats was photographed in situ too.
5. We started extraction of total DNA and amplification of mitochondrial genes (cytochrome b) in our lab (near 20%).

Goal II. Generate an updated distribution map of relevant species and populations useful to health and conservation authorities for successful management strategies of this fishes.

1. We obtained a preliminary distribution map of *Gambusia* species and their bigger populations in the eastern part of Cuba.
2. We identified four important populations of *Gambusia* fishes located near to rural human communities that should be preserved as important tool in vectors control (mosquitoes) of human diseases like dengue.
3. Local authorities of health and wildlife conservation were informing about this preliminary result for successful management of this fishes in the immediate future.
4. We started the writing of a manuscript in relation to new distribution reports of *Gambusia* fishes and evident threats to native ichthyofauna in the visiting localities. This information will provide to authorities for conservation management in the National System of Protected Areas of Cuba when is finish it.

Other activities (carried out thanks to the project)

- We carried out environmental education activities with local child to teach them about the importance to preserve Cuban freshwater fishes in their natural habitats.
- Collected fishes were including in the collection of freshwater fishes of the Museum of Natural History Felipe Poey in the University of Havana for future studies by other researchers.