

Project Update: August 2016

- **Goal # 1.** To determine the prevalence of the fungus *Batrachochytrium dendrobatidis* in four populations of *Peltophryne longinasus*, as well as in its breeding habitat.

Activities performed during the period:

1. We conducted two field trips, one to “Topes de Collantes” and another to “Viñales” (localities #1 and #3 of the project).
2. At Topes de Collantes (Figure 1), we found only one adult female of *Peltophryne longinasus dunni* (Figure 2), but no males were detected during the sampling period. This female was also sampled for the presence of the fungus (Figure 3).
3. We also sampled the skin of 30 tadpoles of *Peltophryne longinasus dunni* (Figure 4) found in a small stream in the mountains.
4. At Topes de Collantes, tadpoles of *Peltophryne longinasus dunni* were found in only two distant streams, which confirms the synchronised breeding activity of the species in these two places.
5. At Topes de Collantes, one of the several local threats to *Peltophryne longinasus dunni* was identified: intense tourism (Figure 5).
6. During our visit to “Viñales” we found neither adults nor tadpoles of *Peltophryne longinasus*.
7. At both localities, we successfully took water samples at *Peltophryne longinasus*’s breeding habitat in order to test for the presence of the free-living stages of the fungus in the natural environment (Figure 6). Four spatial replicates of the sampling were taken.
8. Different water parameters were measured *in situ* in both localities: temperature (measured continually for a period of 24 hours), pH and conductivity. Four spatial replicates in *Peltophryne longinasus*’s breeding habitat were taken.

Additional activities related to Goal I:

Following the recommendations of RSG, during our fieldwork to Topes de Collantes (the only locality known to be infected by the fungus) we sampled the skin (using swabs) of three additional species (*Eleutherodactylus casparii*, *E. dimidiatus* and *E. greyi*). We sampled 10 individuals/species. Of note, we found one dying individual of *E. caspari* (Figure 7). This animal died and it was preserved in ethanol for further laboratory analysis.

- **Goal #2.** To develop educational activities in order to raise awareness about the value of amphibians, and the potential negative impact of the fungus.

Activities performed during the period:

1. Prior to our visits, we interacted with local authorities of both the Protected Area and Touristic Agencies. They were very receptive and cooperative. Additionally, they requested from us general information about the local values in regard to amphibian and reptile fauna. Thus, several informative materials

- (e.g. books and articles in digital format) were given to them during each visit.
2. We also printed and distributed an educational poster to educate local settlers about the importance of amphibian in nature, show the relevance of the Cuban fauna and to teach how to protect this fragile group of animals.
 3. We also designed, printed and distributed a poster about the local fauna of amphibians for each locality.
 4. We interacted with local settlers in order to get a better picture about their level of knowledge related to our target species (Figure 8). Five persons were interviewed during each visit, and as it happened during our fieldwork to locality #2, they knew nothing about the target species. Nevertheless, they were very receptive toward our project and the necessity of protecting this toad.
 5. During the fieldwork, high-quality photos of the target species, its habitat and its tadpoles (Figure 9), as well as of different species of amphibians (Figure 10), were taken. These photos will be used for future educational actions.

Photos by Antonio Cádiz Díaz

- Figure 1. *Peltophryne longinasus dunni*'s breeding habitat in Topes de Collantes.
- Figure 2. Female of *Peltophryne longinasus dunni*.
- Figure 3. Sampling the skin of a female of *Peltophryne longinasus dunni*.
- Figure 4. Sampling tadpoles of *Peltophryne longinasus dunni*.
- Figure 5. Tourism at Topes de Collantes.
- Figure 6. Taking water samples at *Peltophryne longinasus dunni*'s breeding habitat.
- Figure 7. Dead individual of *Eleutherodactylus casparii*.
- Figure 8. Interacting with local guides.
- Figure 9. Tadpoles of *Peltophryne longinasus dunni*.
- Figure 10. Adult male of *Eleutherodactylus auriculatus*.



Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7



Figure 8



Figure 9



Figure 10