

# 6<sup>th</sup> International Conference on BIODIVERSITY AND CONSERVATION

April 27-28, 2017 Dubai, UAE

## Amphibian decimation, reduce biodiversity in Panama

**Batista Abel**

Senckenberg Research Institute and Natural History Museum Frankfurt, Germany

**Statement of the Problem:** Panama, a small country between the major continents of North and South America, is recognized for its mega-biodiversity. In particular, Eastern Panama (EP) is an important biodiversity hot-spot that is little studied. The isolation and speciation of several species is reflected in the endemism of some species. The restricted distribution for those endemic species has contributed to increase the numbers of endangered species in the region. Nowadays several endangered and undescribed species have been affected by Chytridiomycosis, some of them have disappeared even before they can be described. We have experienced a declination event in EP, with dramatic diminution of several species.

**Methodology & Theoretical Orientation:** From 2011 to present, we have repeatedly visited the main mountain ranges in EP, collecting ecological information to assess the status of the herpetofauna in the area. We have fixed eight transects that have been visited two to three times per year.

**Findings:** Based on our results, in EP there are 29 endemic species; some of them are exclusive of EP. Currently there are 14 amphibians, in the endangered categories of the IUCN, although there are several species that have not been evaluated by the IUCN specialists. According to the Environmental Vulnerability Score (EVS), another way to evaluate the conservation status of the species used specifically for amphibian and reptiles, in EP there are 50 species with a high vulnerability, 35 with medium and 12 with low EVS. We found fluctuation in several species; some fluctuations are seasonal, related to the climatic conditions. But also we found death animals Bd positive and low densities for some species in highlands (Fig. 1).

**Conclusion & Significance:** We identified the main threats affecting the status of conservation of the herpetofauna in EP, among them: Chytridiomycosis, habitat fragmentation and contamination. Direct impacts on the herpetofauna and that recently have affected the populations is chytridiomycosis. Now there is evidence for amphibian decline in EP. The deforestation is an alarming issue in the region, and can affect amphibians, every dry season for example protected areas are deforested by loggers and, in the buffer areas people make fires to open areas for cultivation. Therefore, urgent monitoring projects are needed to determine the status and to suggest feasible conservation strategies that can guarantee the long term survival of species.

### Biography

Batista Abel is a Biologist by profession and nature lover. With 15 years of field experience in Panama, Costa Rica and Colombia, he has conducted several studies of wildlife rescue, monitoring and research. He completed his Undergraduate studies at the Universidad Autónoma de Chiriqui, Panama, Graduate studies at the University of Bogota, Colombia Andes and PhD at the Senckenberg Institute (in association with the Goethe University), Frankfurt, Germany, all focused on the study of amphibians and reptiles. His main interest is bioacoustics, interaction between anuran communities, biogeography and taxonomy of amphibians and reptiles of Panama.

abelbatista@hotmail.com

### Notes: