

Project Update: May 2016

Report from November 2015 to April 2016

The survey in January 2016 was conducted, but unfortunately during that time intense rains took place at the occidental region of the country, affecting the number of specimens recollected. However we have planned a third survey in the middle of May 2016. The second survey for arachnids in the Protected Area Sierra Pesquero-Mesa-Sumidero reconfirmed the presence of six orders (Araneae, Amblypygi, Opiliones, Pseudoscorpiones, Schizomida and Scorpiones) from the 10 extant orders of arachnids, except ticks and mites.



Figure 1: Encounter with specialist about SRE's

One important find was the new scorpion

species of the genus *Tityopsis* in three localities of the study area, Mogote La Jiquima, Sierra de Mesa and Sierra de Francisco, recollected from pitfall traps and direct collects. This species is under the process of taxonomical description by other colleagues and it is a good short range endemic (SRE) candidate. On the other hand, searching in the arachnid's collection of the Institute of Ecology and Systematics we found several specimens of the new amazing species of the order Ricinulei, which inhabit in a deep gallery of Cueva Fuentes; this species is also under the process of description by other colleagues. This species is absolutely another candidate of SRE from the tower karst of the protected area and increase the number of arachnid orders to seven. This subterranean system has not been able to be visited due to the heavy rains that caused the inundation of the cave during our visits. With all these new data we can list nine arachnid species from the tower karst of the protected area that are good SRE: Opiliones: *Neoscotolemon* n.sp.1, *Neoscotolemon* n.sp.2, *Neoscotolemon* n.sp.3, *Neoscotolemon* n.sp.4 (all epigean species), *Neoscotolemon* n.sp.5, *Neoscotolemon* n.sp.6 (troglobitic species); Schizomida: *Reddellzomus cubensis* (troglobitic species); Ricinulei: *Pseudocellus* n.sp. (troglobitic species); Scorpiones: *Tityopsis* n.sp. (epigean), resulting in eight new species for science from the nine registered species. In addition, other species were classified as good SREs, with a little wider distribution but limited at the tower karst of Sierra de los Órganos: this is the case of the opilion from the Cosmetidae family (also a new species) which inhabit some of the mogotes of the study area but also the tower karst ranges of Viñales; another example is the pseudoscorpion neotroglobite species *Pseudalbiorix muchmorei* which inhabits only in caves of Sierra de los Órganos. Meanwhile the mygalomorph spiders are under study yet. The GPS referenced database was updated with all the new gathered information, which served to create the SRE distributional maps. These maps are a very useful tool because other information from future projects could be added to analyse the distribution range of the arachnid species in Sierra de los Órganos.

Regarding the environmental education and capacity buildings proposed activities, were delivered informative pamphlets and the didactic game in the communities, as well as were conducted talks to promote the knowledge about the flora and fauna of the mogotes and caves and their conservation threats. On the other hand we get the last images for the second

photo exhibition and the documentary film. The workshop for school professors was carried out and it constituted a good exchange that surely will guarantee the objectives of this project beyond the conclusion of it.

Concerning the creation of SRE Cuban network we developed several contacts with different specialists that work in Sierra de los Órganos, particularly in the tower karst. We did an encounter at the Institute of Ecology and Systematics in which different specialists of the fauna (land snails, amphibian, reptiles and insects) participated and discussed about all the possible SRE species and the threats that are facing in every case.