

Project Update: November 2015

The arachnological literature and collection search was conducted; we reviewed 25 articles with useful taxonomical information, and examined 255 specimens deposited in the collection of the Institute of Ecology and Systematics (IES). The first survey for arachnids in the Protected Area Sierra Pesquero-Mesa-Sumidero was undertaken and it revealed six orders (Araneae, Amblypygi, Opiliones, Pseudoscorpiones, Schizomida and Scorpiones) from the 10 extant orders of arachnids, except ticks and mites. A total of 53 species were registered, which represent a high diversity, with elevate number of endemics. The best candidates as Short Range Endemics (SREs) are:

- Six undescribed species of Opiliones: 3 epigeal species from the family Samoidae inhabiting few sites of the tower karst ranges in the protected area, with very low abundance, 1 epigeal species from Cueva La Lechuza, Cueva Los Murciélagos and Hoyo Colorado locality and 2 troglobite species from the same two caves and Cueva Fuentes, besides 1 species of the family Cosmetidae that was found in some of the mogotes of the study area but also in the tower karst range of Viñales, which is outside the protected area. One samoid species was rejected as SRE of the tower karst because it was also found in pine forest over slate formations located around the area.
- One species of Pseudoscorpiones: the troglobite species *Pseudalbiorix muchmorei* which inhabits only in caves of Sierra de los Órganos (SO), it is not restricted only to the study area but always to tower karst. However the epigeal *P. armasi*, even very abundant inside the area, that it is not a SRE from the tower karst because it is also known from other localities outside SO with non-tower karst, although limited to Pinar del Río province.
- One species of the order Schizomida: *Reddellzomus cubensis* is only known from Cueva Fuentes, within the study area. The other species present in the area *Stenochrus porticensis* is widely distributed all over the island and it is not endemic.
- Two species of mygalomorph spiders: one abundant species from Barychelidae and another one less abundant from Theraphosidae. Both species only appear in the visited mogotes ranges, but further studies could confirm this SRE hypothesis.

All the acquired information is listed in a GPS referenced database, with 251 records, which will be useful to create the SRE distributional maps. Also we registered some perturbations in the mogotes ecosystem of the area, like the traditional practice of swine brood in the ranges, the introduction of some plants like lianas and *Chichicaste* sp. that reflect human alterations, some level of wood extraction and the hunting of the endemic vertebrate species *Capromys pilorides*, known as jutia conga.

Concerning the environmental education we conducted talks and didactic games in the community schools and offered a photo exhibition about the values of the mogotes, this collection will remain permanently at the schools of the protected area.

Meantime we have been interchanging with Cuban specialists of land snails and butterflies that work in SO, particularly with species that are also SREs.

The partial results of this project will be presented in the Encounter "Biological Diversity Conservation in Cuba, 2015".



Collecting arachnids in Mogote La Jíquima



Cosmetid opilion, a Short Range Endemic from tower karst of Sierra de los Órganos



Photo exhibition in Ceja de Francisco school