

Project Update: January 2018

Long-nosed bats are incredible animals starting to be well known for being the pollinators of tequila plants. These species exhibit seasonal migration and in this complex seasonal movements, both species use caves for mating, maternity or as a shelter and shift among caves throughout the year.

Aiming to increase knowledge and acquire more information from this species I have been doing fieldwork during last 8 months, collecting parasite samples from the bats to evaluate prevalence, intensity, species richness. I have also collected variables inside the caves such as temperature, size of the host colony, host phenology and host morphological variation.

Until this date, I have successfully sampled in seven caves inhabited by long-nosed bats (Cueva Del Diablo, Morelos; Mina Santa Rosa and Mina Todos Santos, San Luis Potosí; Los Laguitos, Chiapas; Grutas de Juxtlahuaca, Guerrero; Tubo de Lava Pinacate and Cueva La Mariana, Sonora). In total, I have sampled 390 long-nosed bats (*L. nivalis*, n=168 and *L. yerbabuena*, n=222), and collected a total of 4981 batflies (*T. sphaeronotus*, n=2568 and *N. coxata*, n=2413) and 1437 wing mites. Additionally, I have obtained the first PCR products of DNA amplifications and have been sent to sequencing.

The work continues: Long-nosed bats haven't stopped moving, neither do I, so I have to continue sampling during the next 7 months to finish fieldwork and accurately determine levels of infestation by parasites along migration routes and keeping the work on the laboratory to obtain the remaining molecular information.



Left: Sampling parasites inside a cave, batflies only leave the bats body to larviposit on the cave's walls. Right: A reproductive male of *Leptonycteris yerbabuena* being examined. A dorsal patch of males (as the one shown in the picture) is a factor that presumably affects parasitic infestation.



Left: Baby Long-nosed bat heavily infested by batflies. Right: The Pinacate landscape on the way out after a long night of sampling.