

Project Update: January 2019

We are currently continuing with the monitoring of bats in our study region, which will be carried out until December 2019 (Figure 1). An important point of our research is the search and location of vampire bat shelters. In recent months we have located several shelters with the help of ranchers (Figure 3), in which we make vampire catches, we make a permanent mark on each individual captured through the extraction of a puncture of the wing membrane (Figure 4), and then we released them. The marking will guarantee us to keep track of catches and recaptures of vampires, and additionally allows the collection of tissue samples, which are preserved in 96% alcohol for future research.

Currently I have done a supervised classification of the study region, which has allowed me to identify landscapes of interest for the capture of vampire bats, from where we have obtained metrics of the landscape structure, which we will later use to correlate with the abundance of vampires and the prevalence of attacks on cattle. In each of the ranches visited, we conducted interviews to obtain social and ecological data, we also obtained parameters of prevalence and intensity of attacks of the common vampire bat in cattle, for this we supervised each one of the animals with the support of the ranchers, and we counted the number of bites that each animal presents (Figures 5, 6 and 7).

In the last months we have done tests of DNA extraction of faecal samples of vampires in the Laboratory of Genetics (El Colegio de la Frontera Sur - ECOSUR). For this, we collected fecal samples of vampires in the shelters that we have located with the support of farmers (Figure 2), using material previously sterilised, the samples are stored in alcohol and transported quickly to the laboratory for processing.

Difficulties

Due to social conflicts and the insecurity that exists in some points of the study area, we have been denied permission to carry out our research. However, we have received support in other places, which has allowed us to continue with the development of the project.



Figure 1: Sampling of vampire bats in cattle ranches. Figure 2: Obtaining fecal samples in shelters of the common vampire bat.



Figure 3: Location of refuge sites of the common vampire bat with the support of local ranchers. Figure 4: Marking and obtaining tissue sample in common vampire bat.



Figure 5: Review of animals attacked by the common vampire bat. Figure 6: Calf attacked by the common vampire bat.

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| FECHA: 21-Junio-18 | Coordenadas: UTM 0604881 | Altitud: 709 | Rancho: 6. Naranjo |
| LOCALIDAD: Pasa Honda, Fronton, Comala | Propietario: Rodolfo Comala | | |
| Animales examinados: 74 | Animales mordidos: 7 | Becerras: 18 | Becerras: 18 |
| Observaciones: Muy pocas lesiones mordidas | | Novillos: 1 | Novillas: 1 |
| | | Vacas: 55 | Toros: 1 |
| Raza: Guernsey | Engorda, leche o doble propósito: Engorda, cría | Tipo de manejo: Extensivo | |

 The figure includes two rows of hand-drawn diagrams of cattle. The top row shows five cattle, each with a 'B' on its neck indicating a bite mark. The bottom row shows five cattle, each with a 'V' on its neck indicating a bite mark.

Figure 7: Obtaining data on attacks of the common vampire bat in cattle ranches.