

Manatee Project in Tabasco, Mexico



Manatee (*Trichechus manatus*) is one of the four species that currently make the Sirenia Order. All of these species are threatened to extinction all around their area of distribution due to hunting. The evolutionary peculiarity of this order is that they are the only herbivore mammals that are completely aquatic. Manatee is included on the list of the Species in Danger of Extinction in Mexico (NOM-SEMARNAT-059-2001).

This project is a long term initiative by the Autonomous University Juarez of Tabasco, lead by Ph. D. León David Olivera Gómez from the Academic Division of Biological Sciences. The purpose is to know the current health of the manatee populations in order to make conservation proposals.

To this day we are making two sub-projects. One of them is financed by SEMARNAT-CONACYT, and its purpose is to make a quantification of the movements and seasonal changes of the abundance of the manatees in different sections of the lagoon system of the Usumacinta river and to explore indirect tracking techniques of individuals to get a relative estimation of the amount of these manatees.

The second sub-project is financed by PROMEP and its main objective is to obtain basic ecologic information over an isolated population of manatees in a highly impacted area (at the Illusions Lagoon which is in the urban area of Villahermosa city in the state of Tabasco Mexico) and to evaluate the efficiency of alternative techniques for monitoring populations of manatees in fluvial-lagoon environments.

These subprojects include, among other things, the capture and radio tracking of six manatees in different zones of the state to study their movements at medium scale and the use of the habitat resources at a small scale. Up to this day we have been able to tag one manatee due to the difficulty to locate and capture them in dark waters of the systems of the state.

The system in use consists of VHF transmitters (frequencies within 164 & 165 MHz, model Telex TX-345Y) which are encased in a buoy and attached to the manatee via a special belting that surrounds the tail. This system was designed in Florida and has been used with good success in Mexico (Morales-Vela et al., 1996; 2000)

The manatee was captured in a lagoon system located a few kilometers from Balancan city. It was a young female of 1.97 m long. Unfortunately the tracking only lasted about a month since it seems that the animal got stuck on a fisherman's net and therefore the system released while the animal fought to get free from the net. The system was expected to perform like this.

The transmitter has a very good power and intensity of the signal, we were able to find the signal through several kilometers in the lagoon systems with tree vegetation on the shores. The signal was also enough to find the transmitter which the fishermen had thrown away to a heath on the shore.



Collar attachment

The manatee is set free



Darwin is tracking the manatee

Visual tracking





Buoy with the transmitter

The cracked buoy can be appreciated in this picture.

Somebody found and destroyed it, very likely to see what was inside and find out if there was anything to sell.

Despite this, the transmitter kept working perfectly making the recovery possible.



Article submitted by Dr. León David Olivera Gómez.

Telenax thanks Leon David and his team for sharing their experiences with us.