PROJECT DELTA TAMANDUAS - THE CONSERVATION OF THE LESSER ANTEATER (*Tamandua tetradactyla*) IN THE NORTHEAST BRAZILIAN COAST

QUARTERLY REPORT – THE RUFFORD FOUNDATION

Actions taken from August to November 2019

Lesser anteater records on Canárias Island

The Project Delta Tamanduas team conducted three monthly surveys of the occurrence of lesser anteater in different natural areas of the Canárias Island, between August, September and October 2019. Six camera traps were installed, three in sandbank area and three in mangrove area in the communities of Canárias, Passarinho and Caiçara, for seven days each.

The choice of these communities was based on information about the sightings of the species by the team, by the residents of the communities and the proximity between them (Figure 1). This survey was conducted in order to select priority areas to search for animals to be captured

Figure 1: Location map of Canárias, Passarinho and Caiçara communities on the Canárias Island.

A different individual was registered per community (Figures 2 to 4). The individual identification was given by the natural mark of the coat. All records were always made at night, between 19.00 and 02.00h, in the restinga region.

Figures 2 to 4: Lesser anteaters recorded by camera traps. Photo 2: Caiçara Community. Photo 3: Passarinho Community. Photo 4: Canárias Community.

Temperament Test

This will be the first study that will have access to the tamandua's temperament. Two individuals of the species underwent two temperament tests during the month of September, one test per week and without repetition: reaction to a new environment and reaction to odour of urine of an unknown individual of the same species. Both tests were filmed for further expert analysis to determine descriptive terms / adjectives that match the characteristics of the tamanduas.

These two tests are part of the five that will be performed with the animals in the field. The two individuals of lesser anteater are kept by the Tamanduas Research and Conservation Institute in Brazil, at the Delta Base of Parnaíba, and have no contact with each other.

Telemetry and Monitoring Material

Telemetry material for the Project Delta Tamanduas Project (Figure 5) was produced by Tigrinus Research Equipment®, a Brazilian company that has been producing research and monitoring materials since 2004. Have been acquired:

- Six GPS-VHF modules, with 66-channel GPS, capable of storing coordinates and transmitting via remote download and upload, with 120g VHF transmitter.
- UHF TX-RX transceiver for coordinate download and upload.
- RX-VHF receiver.
- Directional antennas VHF and UHF.

Figure 5: Telemetry equipment.

The material arrived in the city of Parnaíba, Piauí, in November 2019.

Anesthetic protocol and collar test for monitoring

A new telemetry vest / backpack model was developed, based on jackets used in the giant anteater (*Myrmecophaga tridactyla*). It contains five bands, two horizontal bands, one around the neck and one around the upper chest above the nipples. The two bands are joined by a vertical band on the central back, where the transmitter radio is fixed, and two vertical bands on the belly, close to the arms, preventing the vest from rotating.

Figures 6 and 7: Telemetry vest / backpack test. Figure 8: Telemetry vest installation.

The first collar / backpack was made with felt for mold production and model viability testing (Figures 6). We removed the vest from the individual after three days, and this had no interference with natural behaviour (Figure 7).

On November 30, 2019, we performed the anesthesia procedure and vest installation with the transmitting radio on a captive tamandua kept in captivity by the Anteater Research and Conservation Institute in Brazil, at the Delta Base of Parnaíba.

An adult female weighing 5 kg received the anesthetic protocol with the combination of Dexamedetomedine (0.2mg / kg), Midazolan Hydrochloride 0.5% (0.2mg / kg) and 10% Ketamine Hydrochloride (4mg / kg), intramuscular route. The animal remained sedated for 50 minutes when it recovered normally.

The procedure performed was simulating exactly the actions that will be performed in the field: collection of biological material (blood, hair, faeces, ectoparasites), complete biometrics, nanochip marking and the installation of the monitoring vest (Figure 8).

The model of the vest (Figures 9 and 10) was made to be adjusted at the time of installation, adapting perfectly to the body of the animal, since the individuals do not have the same size. The material used was sheepskin, a more malleable, light and thin material compared to bovine leather, but with equal resistance, and according to literature, has never been used previously for this species.

Figures 9 and 10: New model of vest installed in lesser anteater. Photo 9: dorsal view. Photo 10: Ventral vision.

The animal remains with the vest and showed no resistance, moving, climbing, feeding and marking of territory naturally (Figure 11).

Figure 11: Lesser anteater in its natural foraging behavior after installation of the telemetry vest.

Environmental Education in Canárias Island

In November, we held an environmental education action on Tamandua Day, celebrated annually on November 29, with classes and activities at the Silva Freitas Diniz School Unit, for 150 children aged 8 to 14 years (Figures 12 and 13).

Figures 12 and 13: "Meet the tamanduas" activity at U. E. Silva Freitas Diniz, in the Canárias Community, Canárias Island.

A meeting was also held with the leaders and residents of the five communities of the Canárias Island, belonging to the Parnaíba Delta Marine Association Mother Association (AMAR Delta), with a presentation on the Delta Tamanduas project (Figure 14).

A poster (Figure 14) was produced and distributed at strategic points of greatest movement in the communities and via communication app (WhatsApp), announcing the beginning of the project and warning people not to interfere with actions, especially related to animals that will be equipped with the telemetry material.

Next steps

The campaign to capture the lesser anteaters in Canárias Island is scheduled for 2 January 2020. The campaign will be made by the project team (two biologists, a veterinarian and two field assistants) and will be focused in the three communities mentioned at the beginning this report: Canárias, Passarinho and Caiçara.

Temperament testing and monitoring will be initiated immediately upon safe capture and release of individuals with the telemetry vest.

Figure 14: Poster produced on Project Delta Tamanduas.