With satellite monitoring, South American dolphins tell us their story

First monitoring results from 2017 to 2019:

How was the satellite monitoring done?

Satellite tagging is one of the most recent tools in wildlife monitoring, used in studies all over the world and has already brought benefits to the conservation of dolphins in the Amazon and Orinoco basins. Since 2017, scientists from the South American River Dolphin Initiative (SARDI) have undertaken an unprecedented study: the first satellite monitoring of freshwater dolphins in Amazon and Orinoco. The initiative (SARDI) has been lead by World Wildlife Fund (WWF) in Bolivia, Brazil, Colombia, Ecuador, Peru, and has involved partners such as Faunagua, Mamirauá Institute, Omacha Foundation, and Fundación Barcelona Zoo.

Step by step of the tagging process

1. While the dolphins are captured by the experts of the Natural Integrated Management Area and Departmental Park, Ramsar Site Blanco (Bolivia), the dolphins are anesthetized and the tag is installed on the dorsal fin. The transmitter weighs 145 grams and has a lifespan of 10 years.
2. Immediately after placing the tag, the transmitter releases itself from the fin.
3. The dolphins are surrounded and caught.
4. The radio-tracking process uses a tag with a sensor and pressure releases itself from the fin.

Satellite tagging timeline

Step by step of the tagging process

What is moving? South American dolphins

The type of water

Dolphins tagged according to the river flood pulses

Species of river dolphins that have been monitored

Step by step of the tagging process

What lessons have we learned from satellite tagging?

1. Females travel longer distances than males.
2. They need different aquatic environments to live in.
3. High: rivers are explorated with the human canoe. They are used for fishing, transportation, and as a habitat for different species of fish. They are also a place for social events and ceremonies.
4. They have larger home-ranges than males.
5. They displace have no barriers between countries.
6. The climate determines the size and shape of the flood pulse, so the dolphins will displace accordingly. For example, if there is no rainfall, the water level will decrease, and the dolphins will move to the river mouth. If there is a lot of rainfall, the water level will increase, and the dolphins will move upriver.
7. Dolphins movements are influenced by the seasonal water levels. In high water season, they can move in 1500 km, and in low water season, they can only move in 600 km. This is because they need confluences to feed, and they move accordingly to the rhythm of the confluences, where the dolphins wait for them.
8. River dolphins also use the flooded forest. In high water season, they can move in 1500 km, and in low water season, they can only move in 600 km. This is because they need confluences to feed, and they move accordingly to the rhythm of the confluences, where the dolphins wait for them.
9. Aquatic and terrestrial environments are a perfect match for river dolphins. They use transboundary wetlands for food, shelter, and migration. They need different aquatic environments to live in, such as floodplains, channeled and tributaries, and even shallow channels and river stretches. They need confluence areas (connection of environments to live in), where the dolphins wait for them to feed. They have larger home-ranges than males. They displace have no barriers between countries.
10. Flood monitoring and mercury threaten life in the Amazon and Orinoco. Dams isolate river dolphins and interrupt fish migrations, which is a great threat for river dolphins. They are sensitive to changes in these areas. They are distributed in several states in Brazil, Peru, Colombia, Bolivia, and Ecuador. They are distributed in several states in Brazil, Peru, Colombia, Bolivia, and Ecuador. They are distributed in several states in Brazil, Peru, Colombia, Bolivia, and Ecuador. They are distributed in several states in Brazil, Peru, Colombia, Bolivia, and Ecuador. They are distributed in several states in Brazil, Peru, Colombia, Bolivia, and Ecuador.