

## How acoustic research can contribute to conservation of botos?

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Botos, Amazon River dolphins, (*Inia geoffrensis*) are freshwater dolphins, which inhabit the Amazon basin. The population of botos is declining because of the human-animal conflicts (direct killing, fisheries interaction, habitat degradation etc.). Additionally the increasing underwater artificial noise is suspected to damage aquatic mammals all over the ocean. However there is still no information about the situation of the underwater artificial noise in Amazon and its effect to botos. The underwater sounds including the ambient noise, organism sounds and the anthropogenic noise can provide much information about its ecosystem. By analyzing these sounds, we can observe the presence, number or behavior of underwater animals. Especially the acoustic methods are quite effective to observe the underwater behavior of river dolphins in turbid waters.

Authors have been studying the acoustic characteristics, the habitat use and the diving behavior of botos by using the acoustic methods. We monitored the underwater behavior of botos using the stationed stereo acoustic data loggers to observe their local habitat use and its diel changes. The results in this study suggested that the botos used the relatively wide and less current habitat like a lake as their primary habitat for active behaviors like foraging, especially at night, and the deep and less current habitat like a confluence as their primary habitat for relatively inactive behaviors at night. In another research, we monitored the underwater diving behavior using the animal-borne data loggers. In this study, the data logger recorded the avoidance behavior of botos. This result suggested that the boat noise change the behavior of botos.