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Mise en place d'une étude sur le déplacement des raies pastenagues *Himantura fai* dans le lagon de Moorea.

Set up of a study on sting ray *Himantura fai* movements in the lagoon of Moorea

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As part of a CRIOBE EPHE/ FRENCH POLYNESIA UNIVERSITY PhD research study, acoustic telemetry is used to better understand movement pattern of French Polynesia sting rays.

Since 1994, local sting rays, *Himantura fai*, have been included in tourist tours as the main topic along with coral and fish discovery. The North West zone of the Island of Moorea has been selected as the research zone and we have focused on comparing the movement pattern and lagoon use of daily fed rays with non fed rays around the same island.

A complete inventory of the rays has been done in June 2004 prior to the study using color plastic tags (Floy tag) to better understand the fish distribution around the feeding zones. The VEMCO automated ultrasonic tracking system involved during the period from April 2005 to May 2006 has two components:

One passive component that includes V8-SC and V13-1L tags with a random acoustic emission (from four to four minutes) and for which pings are recorded in real time by VR2 receivers. A total of six receivers have been deployed underwater in the study area during a twelve month period. Fourteen rays have been tagged with this method. The coded ultrasonic transmitters were surgically implanted in the abdominal cavity.

One active tracking component involving tags with a regular emission basis (each 2 seconds) that enable the researchers to follow the ray from a small boat during 24 hours period or longer. Fed rays and non fed rays have been followed with this method.

The poster highlights the first results in the different frequentation patterns in correlation with food availability from the tour operators as well as the potential of such telemetry research in a very limited environment with a marine protected area set up in Moorea by the French Polynesian government since October 2004. First results obtained will also help develop a guideline for stingray feeding protocol as part of the marine protected area goals.