

SS040: Structuring the scientific community using acoustic telemetry in the Southwest Indian Ocean

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Acoustic telemetry has advanced significantly, particularly in marine functional connectivity and the conservation of biological resources like fishes, sharks, mammals, and sea turtles. Effective data acquisition relies on a robust network of equipment (in this instance, acoustic hydrophones), which are shared among various stakeholders. Globally, data management is facilitated by several large databases, including the FACT Network, focusing on marine species in East Florida, Georgia, the Bahamas, and the Caribbean with over 2,600 hydrophones, the European Tracking Network (ETN) than manages data from more than 3,000 hydrophones primarily in Europe, and the Canadian-based global Ocean Tracking Network (OTN), which oversees data from more than 3,000 hydrophones worldwide. In the Southwest Indian Ocean (SWIO), the South African Acoustic Tracking Array Platform (ATAP) operates over 300 hydrophones, contributing the majority of detection data to the OTN, but mainly within South African waters. Other regional initiatives exist, but coordination and standardisation amongst these networks is lacking, leading to data loss and reduced understanding of marine species connectivity in the SWIO. From 2025 to 2028, two major projects, MERMOZ and COEXISTENCE, funded by a consortium of agencies under the greater SIOMPA Project, and bringing together researchers from most of the SWIO countries, aim to enhance ecological connectivity in SWIO marine protected areas by deploying more acoustic hydrophones and tagging migratory species. A workshop is planned to foster a scientific community focused on optimizing the regional listening network, sharing data management practices, and promoting inter-network collaboration.