



COCA LOCA project: Connectivity of Loggerhead turtle (*Caretta caretta*) in Western Indian Ocean: Implementation of **local** and regional management

The project started in September 2013 with a kick-off meeting to share experiences between partners of the project. The objective of this workshop was to gather scientists from the Indian and Atlantic Oceans, in order to identify future actions for research and conservation of marine turtles in Overseas European Territories. It was held in Faial, Açores, in the Atlantic Ocean and brought together 17 key loggerhead turtle researchers from Madeira, Canaria, USA, Portugal, France, Açores and La Réunion to discuss the objective of the COCA-LOCA project and identify future research priorities.

Another key advance was a meeting held in Mozambique, alongside the Western Indian Ocean Marine Science Association (WIOMSA) symposium (www.wiomsa.org) in order to formalize the cooperation between partners within COCA-LOCA. A MoU is in preparation. Field trips to find sea turtles and the sampling of loggerhead turtles have now started.



Project goal and objectives

The loggerhead turtle occurs in the territorial waters of Reunion and Mayotte. It is listed in Appendix I of the Washington Convention (CITES) and the IUCN Red List. More than other species, the loggerhead is especially susceptible to bycatch in fisheries, ingestion of plastic debris and boat strikes. A regional convention for the management and conservation of sea turtles and their habitats in the Indian Ocean and South-East Asia (IOSEA) was established in 2003 under the aegis of the Convention for Migratory Species (CMS).

Mitigation measures to reduce the impact of these anthropogenic threats on marine turtles have recently been implemented in Reunion. These must be further developed, amplified and extended to Mayotte, and more generally in all the West Indian Region. These measures must be based on a clear understanding of the biology of this migratory species, whose habitats are largely scattered in this Indian Ocean region.

The objective of this BEST 2012 action is thus to increase knowledge on this sea turtle species which has, so far, been little studied in the Indian Ocean. In particular, studies of the oceanic migration pathways and of the connectivity between populations of the main known breeding sites of the western Indian Ocean are required to implement effective management measures at the local level through the forthcoming French National Action Plan (NAP), and at the regional level, through a close cooperation with IOSEA which has already defined its Action Plan.

More specifically, our project plan proposes:

- To assess the relative importance of major anthropogenic threats to the loggerhead turtle in the territorial waters of Reunion, strengthening actions to directly reduce the local impact of these threats, and initiate an equivalent process in Mayotte,
- To study the oceanic movements of loggerhead turtles present in the territorial waters of Reunion and Mayotte. This will be achieved by increasing the data already collected through individual Argos tracking, new genetic and isotopic analyses and hatchlings dispersal modeling from the main nesting sites of the Indian Ocean,
- To establish a cooperation between Reunion, Mayotte and the countries hosting the nesting sites of this species (South Africa, Madagascar, Mozambique and Oman) to implement regional management measures,
- To exchange good practices, experiences and scientific knowledge with the ORs Atlantic already working on the juvenile stages of this species: Azores, Madeira, Canary Islands.

The first objective is clearly an «immediate» conservation goal. The following objectives shall, in the medium term, allow optimization of the means dedicated to conservation of this species thanks to a largely improved knowledge of the habitats occupied during the different life stages of this highly migratory species.



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