Horizontal movement behaviour of silky and oceanic whitetip sharks in the Indian Ocean.

John Filmalter[*1,2,3], Francois Poisson , Anne-Lise Vernet[4], Fabien Forget[1,2], Paul Cowley[5], and Laurent Dagorn[1]

[1]Institut de Recherche pour le Développement (IRD) – IRD : UR212 – BP 171, 911 avenue J. Monnet, 34203, Sète, France
[2]South African Institute for Aquatic Biodiversity (SAIAB) – Private Bag 1015, Grahamstown, 6140, South Africa
[3]Department of Ichthyology and Fisheries Science (DIFS) – Rhodes University Grahamstown 6140, South Africa
[4]IRD (IRD) – IRD BP 570, Victoria, Mahé, Seychelles, Seychelles
[5]South African Institute of Aquatic Biodiversity (SAIAB) – Private Bag 1015, Grahamstown, 6140, South Africa

Abstract

The horizontal movements of the silky and oceanic whitetip sharks in the Indian Ocean were investigated through the use of pop-up satellite tags. Tagging was conducted either during commercial operations on tuna purse seine vessels or during research cruises on board longline vessels, a tuna purse seine vessel or vessels chartered for studying fish behaviour around drifting FADs. Pop up tags were either MK 10 PATs and MiniPATs from wildlife computers. To increase the probability of obtaining movements beyond the resolution of the estimates provided using such tags, only tags deployed for more than three weeks were analysed. As such, data from a total of 28 silky sharks and 1 oceanic whitetip were analysed. The principle focus of this work was on juvenile silky sharks that typically associate with drifting FADs (n = 23) however some larger sub-adult and adults, that are more regularly taken by long line vessels (n = 5), were also tagged. The total number of days of observation was > 1300 d for silky sharks (data collection continuing) and 100d for the oceanic white tip. Horizontal movements were obtained using light-based geolocation methods and most probably tracks were generated using the Tremblay Iknos-Walker method.

Keywords: silky shark, oceanic white tip shark, movements, satellite tag, tracking

---

[*]Speaker