

Movement and residency patterns of grey reef sharks, *Carcharhinus amblyrhynchos*, along the west coast of Mahé, Seychelles

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Growing conservation concerns about the status of shark populations in Seychelles, led to the development of the Seychelles National Plan of Action for the Conservation and Management of Sharks (NPOA Sharks) in 2007. The plan highlighted a lack of species-specific knowledge on the distribution and biology of sharks. The grey reef shark, *Carcharhinus amblyrhynchos*, classified as near threatened on the IUCN Red List, is a shark species that is important for both the tourism and fishing industry in Seychelles. Grey reef sharks are one of the most sighted reef sharks by divers and are the most commonly caught shark by artisanal fishermen. Despite their ecological importance, very little information exists on their behavioural ecology to inform management decisions. In this study, we used acoustic telemetry to describe the movement and residency patterns of grey reef sharks between offshore rocky reefs and inshore coastal habitats along the west coast of Mahé. A total of 18 acoustic listening stations (Vemco VR2W) were deployed at Stork Patch, Pilot Patch and along the coastal area near Grand Anse. We tagged 23 sharks of which 16 sharks were detected within the acoustic array. Our results show that sharks were more resident at Stork Patch followed by Pilot Patch. The majority of sharks made extensive movements between the two rocky reefs. In addition, 2 sharks made extensive movements between the two reefs and the coastal areas of Grand Anse. Moreover, 3 sharks were detected for short periods in the Baie Ternay Marine National Park where acoustic listening stations has been deployed as part of another project. Information collected from this project has improved our understanding of the movement patterns of this species which will help us to better decide on the proper spatial and temporal scales for implementing management measures for this species.