



SURVEYING THE MOST SOUTHERLY CORAL REEFS OF SEYCHELLES

by Matthew Morgan

Earlier this year in March, the Island Conservation Society (ICS) carried out a research expedition to one of the most remote locations in Seychelles, the Farquhar Atoll. The expedition was organised and funded under the GOS-UNDP-GEF Expansion and Strengthening of the Protected Areas Subsystem of the outer islands of Seychelles and its integration into the broader land and seascape project. The aim was to comprehensively assess the status of the coral reef ecosystem and collect baseline data on coral reef and fish.

The journey commenced from Mahé aboard a 49' catamaran, which served as both a home and a research base for the 11-day trip. After departing Providence Jetty, it took around 60 hours for the team to arrive, where they were greeted by calm seas and a small pod of inquisitive bottlenose dolphins.

Shortly after arriving, the underwater observations began. Pierre-Andre Adam (Left, ICS Head of Science and Projects) collected data on coral condition and recruits, Annabelle Cupidon (Middle, Assistant Conservation Officer) recorded details of benthic coverage and invertebrates and Matthew Morgan (Right, Conservation Officer) gathered information on fish.

The team quantitatively surveyed 10 locations, across all major marine habitats of the atoll. They worked intensively, undertaking 3-4 research dives a day, followed by data entry in the evening. The reefs were teeming with life. Thankfully, the conditions remained calm during the survey period, allowing all planned work to be carried out. Farquhar has numerous local eddies and upwellings, making its waters very rich; however, these can also cause hazardous sea conditions.

Since the last survey by ICS in 2014, Farquhar has experienced the strongest cyclone ever recorded in the Indian Ocean ("Fantala") and a major coral bleaching event in 2016, making the information gathered particularly pertinent. Fortunately, despite the extreme environmental pressures, live hard coral cover has remained relatively constant, deviating by less than one percent from 2009-2019. Furthermore, coral cover has increased in the lagoon since the last survey, showing they have increased bleaching resistance; a vital feature in the face of climate change.

Perhaps the most impressive feature of the reefs was the fish, which held very high densities of Babonn (Plectropomus punctatus) and Aya zera (Cheilinus undulatus). Also notable were large schools of Filanbaz (Bolbometapon muricatum), which could be heard before seen, crushing coral with their large beaks. Along the outer reef slopes, thousands

of Redtooth Triggerfish (*Odonus niger*) filled the water column, feeding on suspended plankton brought by the deep waters. Figures indicate that Farquhar has substantially higher fish stocks than atolls located further north, which are more accessible from Mahé (such as those in the Amirantes group). Unfortunately, apex predators such as Reef Sharks and adult Groupers were absent from most reefs, as were large schools of lower level predators, such as Varavara (*Lutjanus bohar*). This demonstrates that Farquhar is by no means pristine and receives substantial fishing pressures, despite its remoteness.





Research from ICS continues to reveal the importance of Farquhar, which in turn is helping preserve it. Findings have already helped identify 50% of the islands as Important Bird Areas by Bird Life International. Furthermore, ICS is a key implementing partner to the GOS-UNDP-GEF Outer Islands project and is contributing to the Marine Spatial Plan (MSP). The plan will demarcate an area of the Farquhar Group and its surrounding waters as a Sustainable Use Area, providing the atoll with much-deserved legal protection.



Through strong partnerships formed between the Government of Seychelles, NGOs, private donors and the public, the conservation of Seychelles looks to be in good hands. Innovative schemes are future-proofing these unique and globally-important sites against the ever-expanding human population and unpredictable climate.



About ICS

The Island Conservation Society (ICS) is a non-governmental, not-for-profit organisation based in the Seychelles. ICS promotes the conservation and restoration of island ecosystems, sustainable development of islands, and awareness of their vulnerability and vital importance to the planet's biodiversity. Its conservation teams are currently based on the following islands: Aride, Alphonse, Desroches, Farquhar and Silhouette.

For more information on the project, scan here:



About the GOS-UNDP-GEF Outer Islands Project

The GOS-UNDP-GEF Outer Islands project, "Expansion and strengthening of the protected area subsystem of the Outer Islands of Seychelles and its integration into the broader land and seascape", aims to promote the conservation and sustainable use of terrestrial and marine biodiversity in the Seychelles' Outer Islands by expanding the protected areas system and strengthening protected area management, supported by broad-scale ecosystem planning and sustainable land management activities to conserve ecosystem functions.



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