

Conservation on Desroches Island and a new species of whale

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Eco-tourism on Desroches

Lying 240 km southwest of Mahé in the Amirantes group, Desroches is a 324 hectare low-lying sand cay of just over 5 km length. The island lies at the southern edge of a 20 km wide sunken atoll and is today the most developed of Seychelles' outer islands. Owned by the Seychelles government, the island is managed by the government's Islands Development Company with the involvement of the Desroches Island Lodge resort and the Island Conservation Society environmental charity. Desroches Island Lodge is one of the most luxurious resorts in Seychelles and attracts the most discerning guests, including Prince William of the United Kingdom and his bride-to-be Catherine in 2007.

The "Desroches Whale"

The Island Conservation Society established a conservation centre on Desroches in June 2009 and within weeks we were presented with the rare event of a stranded beaked whale. The 4 metre whale was photographed and anatomical measurements taken to help identify the species. The closest potential match was one of the rarest types of beaked whale – the Ginkgo beaked-tooth whale *Mesoplodon ginkgodens*, only known from just over two dozen strandings. Significant differences in skull and teeth shape from the official Ginkgo beaked-tooth whale characteristics, however, prompted the Island Conservation Society and Seychelles' Ministry of Environment to get involved with global experts in whale taxonomy (the science of how species relate to each other).



The "Desroches Whale" beached in June 2009

The "Desroches Whale" turned out to be identical to a specimen that had been heralded as a new species when washed up in Sri Lanka in 1963. Very similar to the Ginkgo whale, however, taxonomists of the 20th century found the proposed species impossible to confirm. Later advances in DNA technology have allowed recent re-investigation of beaked whale taxonomy and the Island Conservation Society joined forces with these researchers. DNA studies confirmed in 2011 that the 2009 Desroches whale and the 1963 Sri Lankan whale, along with five further specimens from across the Indo-Pacific, were indeed a new species.

We presented the scientific findings to the International Whaling Commission in June 2012, with 2009 ICS team members Danielle Jupiter and Lisa Thompson as co-authors, and the new species was officially recognised as *Mesoplodon hotaula*. As is the custom of naturalists, the "Deraniyagala's Whale" common name agreed is that given to the first specimen in 1963.

We are now expanding our whale monitoring system on Desroches. A visual sightings programme has been established with the support of Bryan Rapson at the island's Castaway activity centre and we have joined forces with Dr David Rowat at the Marine Conservation Society of Seychelles in an application for \$150,000 funding towards whale monitoring across the Seychelles plateau. If successful, this will bring to Desroches the latest technology for acoustic detection of whales.

The conservation team and island rehabilitation

The Island Conservation Society team on Desroches is today led by Tony Jupiter. Originally from Bel Ombre on Mahé, Tony is one of Seychelles' most experienced conservation rangers and has tagged, during his working life on outer islands including Aldabra, more than half of all the sea turtles ever tagged in Seychelles. We also have Melinda Curran working as a volunteer administration officer and Kat



Tree planting for the vegetation rehabilitation programme

Machin on a placement year for her zoology degree at the University of Manchester, England.

The indigenous broad-leaved forest of Desroches, once marked on maps as “Wood Island”, was largely replaced with coconut palms during the 19th century for plantation agriculture. The Island Conservation Society is now building on past experience restoring the native forest of Aride Island with an ambitious vegetation rehabilitation programme for Desroches. Closely supported by our partners at the Islands Development Company, led on Desroches by Alain Commettant, we are planting nearly 50,000 native broad-leaved tree seedlings over the next few years. Native forest that remained in a wilderness area at the eastern end of the island is being used as the source of seeds and seedlings for our planting programme to conserve the genetic provenance of the Desroches forest. Future rehabilitation work is proposed to include rat eradication, with potential for translocation then of the endemic ground-dwelling Seychelles Magpie Robin or Aldabra Flightless Rail.

Environmental education with the Desroches family

One of the eco-tourism highlights for guests at Desroches Island Lodge is the giant tortoise nursery and adoptions of young tortoises are popular. We have here 40 to 50 juvenile tortoises at any one time, ranging in age from a few weeks to 7 years old. Most hatchlings come from our twelve captive breeding adult tortoises in what, at the size of two soccer pitches, is possibly the world's biggest giant tortoise pen. There are also 30 wild giant tortoises on Desroches and these lay eggs in nests scattered across the island. We are regularly brought hatchling tortoises found by island staff and hotel guests on their travels. For the first weeks of their lives, freshly hatched tortoises are protected by Island Conservation Society staff at their houses.



7 year old giant tortoises released from our nursery into the wild on World Environment Day

World Environment Day in June 2012 allowed the Desroches family to bring these various aspects together in an enjoyable event for the whole island community. Staff from Desroches Island Lodge, the Islands Development Company and the Island Conservation Society all came together for an intensive morning planting 300-plus trees. Great fun was had by all and we finished up, joined by an enthusiastic contingent of hotel guests, with a ceremonial release of five juvenile giant tortoises that had reached a suitable size for safe wild living at aged 7 years. We've begun planting a Botanic Gardens next to the tortoise nursery that Kat, our university placement student, is developing.

Desroches Island Lodge are enthusiastic partners and support the bulk of the conservation centre costs. Mark Leslie and Wicus Prinsloo of the hotel management host the Island Conservation Society team at the hotel library every Monday and Friday evening where we present popular nature talks to guests. Evening environmental education goes further during the Green Turtle nesting season, with guests welcome to accompany us on night patrols to tag nesting females. Year-round, we also offer a daily afternoon nature tour of the island. Earlier this year, Tony encountered the unusual sight of Green Turtles mating on the beach and was able to take some stunning photographs.



The rare sight of Green Turtles mating on the beach

And the “Desroches Whale”?

One of only seven specimens known to science, we propose to have the skeleton of the Desroches Whale wire-mounted by professionals and installed under a wooden protective shelter as the centrepiece of our Desroches Botanic Gardens. Together with our giant tortoise nursery and the education materials, this will provide a focal point to inspire guests and staff alike for years to come.

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