

Highlights of conservation activities by ICS and partners in 2012 - 07.01.2013

The following are a few highlights of projects and conservation activities conducted across various islands involving the Island Conservation Society (ICS) and its partners during the last year.

Shearwater project on Aride Island

ICS initiated a project on Aride, which started in October 2011, with the aim of acquiring precise knowledge of the ecology of the Wedge-tailed shearwater *Puffinus pacificus* and the Tropical shearwater *Puffinus lherminieri* (subspecies *nicolae* described from Aride) which will provide information that is indispensable to ensure a good scientific monitoring of their populations, and will allow to propose more efficient conservation measures, either on Aride or around the Seychelles archipelago or elsewhere at sea in the Indian Ocean.

This project is being financed by Fondation Total, CNRS-CEBC and James Cadbury, with in-kind contributions from Dr Gérard Rocamora, Dr Vincent Bretagnolle, and ICS.

The main challenges during the first year of the project were, first of all, to improve the population census method, in particular investigate new methods (both statistical and in the field) and compare them with the old ones to improve the accuracy of the estimation.

Afterwards, with the aim to investigate the breeding success of the colony, a number of nests were selected per each species and checked every week.

Moreover a wide range of biotelemetry devices were identified and the best solutions for the foraging ecology study were selected and purchased. After the purchasing, some devices have been already placed on the birds and the first data collected.

This project was also given some publicity by a French media group working for Gedeon Programmes (www.gedeonprogrammes.com) and Nausicaa (www.nausicaa.fr) which are putting together a series of documentaries named 'Sentinel Islands'.

The idea is to show how some islands are tackling environmental, economical and social challenges across Vanuatu, Seychelles and South Caribbean especially in the face of climate change.

Solar energy project for Aride Island

A total of about USD \$80,000 has been secured to develop a Photo Voltaic (PV) system on Aride.

The renewable energy hybrid (solar) system project proposal which was submitted to the Australian High Commission Direct Aid Programme for funding was successful.

The main aim of the project is to reduce the demand for fossil fuels on Aride initially by 50% during Phase I in early 2013.

ICS has also been successful in acquiring further funding from the GEF/UNDP Small Grant Programme to boost this PV system and reduce reliance on diesel by up to 90%.

This project is a two year project which is set to commence in January 2013.

Sustainability project on Silhouette

The possibility of funding from the British High Commission for a sustainability project on Silhouette is also being investigated.

ICS proposes to increase its in-house capacity to deliver a high impact outreach project on the island, whereby it is proposing to install a demonstration solar power plus water purification system at the La Passe primary school and use that as the focus for a 12-month education programme.

Albeit on a micro scale, this will also provide a suitable platform to build on for future renewable energy projects by showcasing ways and means of combating climate change and hopefully providing inspiration to encourage and/or replicate similar systems in their community or elsewhere.

Cetacean watch at Desroches

ICS has submitted a \$150,000 Strategic Planning project concept note under the GEF/UNDP Small Grant Programme as supporting junior partner with the Marine Conservation Society Seychelles for a cetacean monitoring project, titled 'Conserving marine mammals around Seychelles while maintaining sustainable use of marine resources against a background of urban development, petroleum exploration and climate change'.

This project on marine mammals will essentially build on ongoing visual cetacean monitoring that ICS began on Desroches in June 2012 by providing \$15,000 worth of acoustic monitoring equipment.

Reintroduction of Black mud terrapin to Aride Island

Twelve Black mud terrapins were reintroduced to Aride from Frégate Island on February 24, 2012 following an absence of more than a century.

The reintroduction was part of the FFEM project 'Rehabilitation of Island Ecosystems' aimed at restoring the ecosystems of several islands including the granitic islands of Aride, Conception and North.

This is an important achievement and a further step in the direction of restoring the ecosystem Aride.

This is an important step as terrapins are becoming much rarer on Mahe and Praslin due to loss of habitat.

It is an endemic subspecies and it is vital to create sanctuaries in protected areas to try and compensate for the decline.

Terrapins used to be present on Aride in the 19th century, but disappeared for reasons unknown.

The new inhabitants of Aride are monitored weekly and seem to be well adapted although no signs of breeding have been recorded to date.

This transfer should be followed by a second transfer of 5-15 animals later in 2013, pending authorisation from the Environment Department and Frégate Island and available funding, so that a founding population of 20-30 terrapins is established, to ensure the success of the transfers in creating a new breeding population of this rare species that will be fully protected.

Fighting a big-headed menace on Aride Island

The Big-headed ant (BHA - *Pheidole megacephala*) is an introduced and highly invasive species that can significantly impact native ecosystems if it becomes widespread and abundant.

It was first identified on Aride by ant expert Dr Brian Fischer in February 2010 and fortunately, it appeared not to have spread too much up the hill by May 2010 and it was still deemed necessary and plausible by ICS to eradicate it at that stage. The eradication was envisaged in three phases:

- (1) Scoping phase determining the exact level of the infestation and feasibility of eradication (completed)
- (2) Treatment using toxic formicide baits
- (3) Post-treatment assessment.

The proposed eradication of BHA will completely obliterate ants from a 8.8ha area, consequently the whole island, allowing other ant species to recolonise from the remaining 59.2ha of Aride Island, while ensuring the maximum precautions are taken to minimise the already very low risk of secondary poisoning to other non-target species.

Approval has been granted by the Environment Department to eradicate this species from Aride

following completion of Phase 1 and production of the eradication plan.

Phase 2 is set to commence as soon as the poison arrives in Seychelles (early 2013). This project is being funded by James Cadbury.

New whale species on Desroches

The "Desroches Whale" which was washed ashore on Desroches in June 2009 (originally identified as a Ginkgo-toothed beaked whale *Mesoplodon ginkgodens*), turned out to be identical to a specimen that had been heralded as a new species when washed up in Sri Lanka in 1963.

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.

The scientific findings were presented 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* or 'Deraniyagala's Whale'.

Conclusion

ICS over the years has always been investing, developing and implementing sustainable mechanisms to ensure continuity (e.g. establishing endowment funds, conservation levies) and expansion of its conservation programmes in the inner and increasingly in the outer islands as well, by building partnerships with island owners, tourism investors and local interests (e.g. creation of separate Foundations for islands such as Alphonse, Desroches and Silhouette), for which experience has proven challenging but a recipe for success, if managed properly.

ICS will continue to strive for many more years to come to help "promote the conservation and restoration of island ecosystems, sustainable development of islands, and awareness of their vulnerability and vital importance to the planet's biodiversity", no matter what the cost or how great the challenge.