



IOSG NEWSLETTER n° 2

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Research into the only Indian Ocean population of little penguins

From 2006-2009, researchers from Murdoch University and University of NSW will be working on several projects to help conserve Little Penguins in the Perth metropolitan area. One of the projects involves attaching satellite tags to Little Penguins from both Penguin and Garden islands to know where they feed. In a previous study, penguins from Penguin Island were found in Warnbro Sound and Comet Bay 15-20km south of the colony. From the satellite tagging project, the researchers will determine if the penguins from Penguin Island use the same areas in different years, and if the penguins from Garden Island feed in the adjacent Cockburn Sound.



Another part of the project involves marking individual penguins with small microchips. By catching marked and unmarked penguins, the researchers will estimate the population size and the survival rate of the penguins. Genetic information will be used to determine the likelihood of penguins moving from one colony to another, and whether the larger body-size penguins on Penguin Island are genetically distinct. The researchers are also interested in the causes of penguin deaths. Most penguins die at sea and will never be found, but the occasional penguin is washed ashore. Autopsies are performed to investigate the causes of mortality. The location of dead penguins also tells the researchers how far the penguins may travel.

Dr Belinda Cannell, Perth, Western Australia

Flesh-footed Shearwater Bycatch

The purse-seine fishery targeting sardines on the south coast of Western Australia is currently trying to quantify the incidental capture of locally

breeding Flesh-footed Shearwaters *Puffinus carneipes*. An unknown number of these shearwaters are drowned during net retrieval, particularly during the latter part of their breeding period when they are foraging closer to their breeding colonies. Losses from the population breeding around Albany are currently being assessed. Several preventative measures are being trialed including the use of shark oil as a deterrent and pauses in fishing during the chick rearing period to break the entrainment of birds on the fishing operations.



It would be useful to learn whether the Flesh-footed Shearwater is being taken as bycatch in purse-seine or long-line fisheries whilst on migration in the north-western Indian Ocean. If anyone has any relevant records or observations please contact Nic Dunlop at tern@git.com.au.

Choppers lure Sooties back to Cousin

After sixty years without a breeding population of Sooty Terns, the Nature Seychelles managed island of Cousin may be about to welcome the birds back thanks to the development of a helipad on the island. Records of Sooty Tern egg collection on Cousin suggest that the birds once bred in prodigious numbers on the island.



However, the egg collection rapidly reduced their numbers and by 1947 there were no Sooty Terns breeding on Cousin. Since clearing a small area for a helipad, however, Cousin wardens have noticed a large number of Sooties visiting the area. The recommendations of visiting seabird expert Prof. Chris Feare – such as providing suitable nesting habitat, deploying dummy Sooty Terns and broadcasting Sooty Tern calls – are now being adopted in an attempt to encourage a breeding population back to the island.

Matthew Harper

Nirmal Sha (Nature Seychelles)

A different viewpoint of Sooty Terns

In August 2006 I was invited by John Hughes to join the UK military services expedition to Ascension Island in order to participate in their ongoing Sooty Tern research and to advise on its future directions. Ascension Island is famed for its sub-annual breeding cycle of 10 lunar months (c. 9.6 calendar months) but this turned out to be less straightforward than I had expected. Ascension is a volcanic island and experiences SE winds throughout the year. Sooty Terns nest on lava flows on the south-western, dryer, side of the island in places practically devoid of vegetation. In 2006 there were two colonies, both close to the coast and thus at low elevations, as is typical in recent history. Within each of the colonies, however, there were distinct sub-units at different stages of the nesting cycle, but within each sub-unit the birds were highly synchronous in their nesting activity. During my brief visit adults in some sub-units were laying, whereas in others chicks were fledging, and there were all stages between. Thus while breeding seasons are 9.6 months apart, the breeding season is longer than in the Seychelles and the intervals between breeding seasons of specific individuals remains to be resolved. In their rocky habitat they nest at much lower density (<1 nest/m²) than on western Indian Ocean sand cays (> 3 nests/m²) but the heavy white staining of the rocks in areas with large chicks provided a graphic illustration of the quantity of guano deposited during the breeding season. This is not apparent in the porous substrata of colonies in sandy habitats but these must nevertheless receive a huge nutrient input each season. In the 1950s, Philip Ashmole recorded very long incubation shifts, > 5 days. Recent studies by John Hughes indicate a shorter shift duration, ~ 3 days, which is still much longer than the 1 day shifts more typical of Bird Island, Seychelles. Ascension Sooty Terns always flew west when leaving the colonies, but the location of their feeding areas, and thus the distance they must travel, is unknown.

These significant differences from most western Indian Ocean Sooty Terns highlight the adaptability of this species.

Chris Feare



Satellite tracking of red-tailed tropicbirds at Europa Island, Mozambique Channel

Unlike most tropical seabirds, red-tailed tropicbirds are solitary foragers rarely associated with surface dwelling tunas. In the southern Mozambique Channel, they breed during austral summer when marine productivity is the lowest. Using satellite telemetry, we recently studied the foraging trips of incubating red-tailed tropicbirds at Europa Island. Foraging trips lasted 1 to 9 days (average 4 days). The maximal distance covered was 1350 km and the maximum foraging radius 551 km. Two birds headed south west and reached the ridge of the Mozambican continental shelf. The third tracked bird headed to the north and foraged in the vicinity of Bassas da India, an isolated atoll situated at 189 km from Europa. These preliminary results are very promising and will be completed in the near future to know more about the marine ecology of this mysterious and atypical tropical seabird.

Patrick Pinet, Darren Peck & Matthieu Le Corre
(ECOMAR, Université de la Réunion)



Call for contributions: This is the second issue of our Newsletter. We plan to prepare the next issue for June 2007. So do not hesitate and send your contributions to one of the editors (see above) now!

Indian Ocean Seabird Conference Christmas Island

INDIAN OCEAN SEABIRD CONFERENCE 19- 22 April 2008 Christmas Island, Indian Ocean

This will be the inaugural conference of the Indian Ocean Seabird Group and is being organized with the assistance of the Christmas Island Tourism Association (CITA) and Island Explorer Holidays.



Join us on Christmas Island between 17 and 25 April 2008.

The official conference programme will take place between 19 and 22 April 2008.

Day	Symposia / Field Trips
Saturday, 19 April	Population dynamics of Indian Ocean seabirds
Sunday 20 April	Seabirds and fisheries in the Indian Ocean
Monday 21 April	Impact of climate change on Indian Ocean seabirds
Tuesday 22 April	Threats to seabirds on Indian Ocean islands

For Conference Registration, the call for papers and Christmas Island travel and accommodation bookings please visit www.christmas.net.au/iosgconference.php or contact Linda Cash at the Christmas Island Tourism Association via email: marketing@christmas.net.au or telephone +61 (0) 439215001.

For questions on the program/symposia, presentations and proceedings please contact Dr Nic Dunlop via email: tern@git.com.au

We look forward to welcoming you to Christmas Island.