Seabird News

SEYCHELLES SEABIRD GROUP Newsletter Issue 7 May 2011

The ***Seychelles Seabird Group*** was formed in 2002 to facilitate the sustainable management and conservation of seabird resources in Seychelles. It comprises owners and managers of globally recognized IBAs (Important Bird Areas) and nationally important seabird sites. Our main role is to work collaboratively to: Gain national perspective; Prioritise seabird research and monitoring on a national level; Coordinate all seabird research and monitoring; Utilise standardised methods to ensure the comparability of data; Ensure priority seabird work is undertaken; and Use information collected to direct future research and/or management.

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Inside:

Editorial

Dear SSG members,

Welcome to the seventh issue of the SSG newsletter. As the new coordinator of the SSG, it is a pleasure to see that the stakeholders monitoring or doing research on seabirds are keeping an interest in sharing their experience and information with others.

In this issue, we have a follow-up article on the breeding of Black-naped Terns on St. François atoll in the southern Amirantes; information on a new experiment to start soon on Bird Island with Sooty Terns being equipped with geolocators and the preparation of a new area on Cousine Island for the next Sooty Tern breeding season. Cousin Island presents its latest seabird survey results and Aride Island highlights some of the latest news on seabirds.

I wish you all a happy reading!

Riaz Aumeeruddy, Nature Seychelles
Science Coordinator & SSG coordinator

News:

Seabirds news from Cousin

By Mary Ledlie and Riaz Aumeeruddy

Seabird censuses have been carried out at regular intervals on Cousin during the last 10 years, allowing size and trends in the breeding population to be monitored. In February 2011 a census of white-tailed tropicbirds, white terns and Audubon's shearwaters was carried out. All three of these species breed year-round on Cousin and show high levels of intra- and inter- annual variation in numbers, therefore two censuses are completed each year, once during the SE trade-wind season and once during the NW monsoon. Methods followed those described in Appendix 3 of the Seabird Monitoring Handbook for Seychelles, whereby 70 circular plots were randomly selected over the island and all nests within them were counted.

White-tailed tropicbirds were found in 24% of the plots and the total island population was calculated as 347 breeding pairs (s.e.: 99 pairs). This estimate is lower than values recorded in previous censuses but this species is well-known to show high levels of intra-annual variability in numbers, even from one month to the next, and therefore large variations in census estimates are to be expected.

White terns were found in 77% of the plots and the total island population was calculated as 2603 breeding pairs (s.e.: 294 pairs). This is one of the highest estimates in recent years and is more than double the estimate from the previous census in July 2010 (864 pairs). Again, this species breeds year-round although numbers breeding in the NW monsoon season have consistently been found to be higher than during the SE trade-wind season.

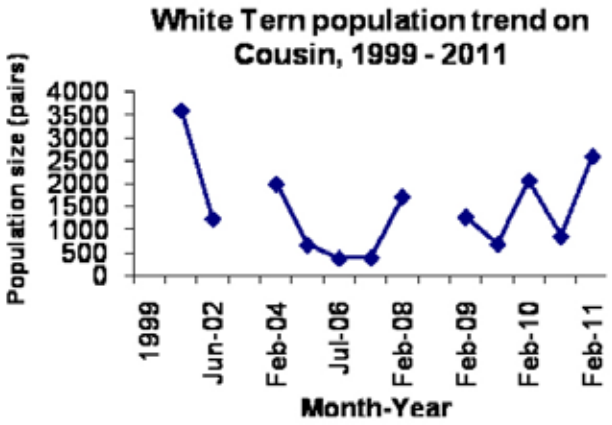
Audubon's shearwaters were found in only 11% of the survey plots and the total population as calculated as 212 breeding pairs (s.e.: 109 pairs). This value is lower than values from recent censuses which have ranged from 401 – 1630 pairs and considerably lower than values from earlier censuses (1999-2000) of 5210 – 5177 pairs. It appears that this species experienced a dramatic decline in numbers after 2000 and has not recovered again in recent years.

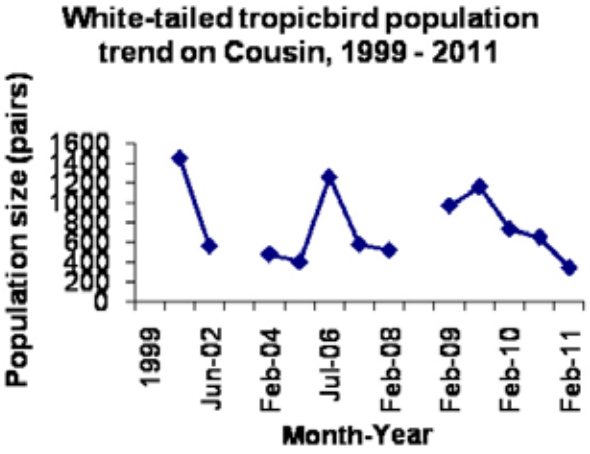
The following graphs show the population trend of these three species from 1999 to 2011.

Breeding success monitoring has been undertaken for white terns and white-tailed tropicbirds.
Out of 100 white tern nests selected in December 2010 at the adult/egg stage, 27 hatched and 20 fledged. This value seems quite low, but is actually quite normal for this species as eggs can easily fall from the precarious locations on branches where they are laid.

Breeding success monitoring for white-tailed tropicbirds has been ongoing since March 2011; three plots have been selected around the island (two on the plateau and one on the hill) and all nest sites within them are checked each week for activity. This monitoring will be continued on a long-term basis and by working out the proportion of nests in each plot which are active at the time of the census, we should be able to get an estimate of the total breeding population.

Photo: Fairy tern (Peter Chadwick)





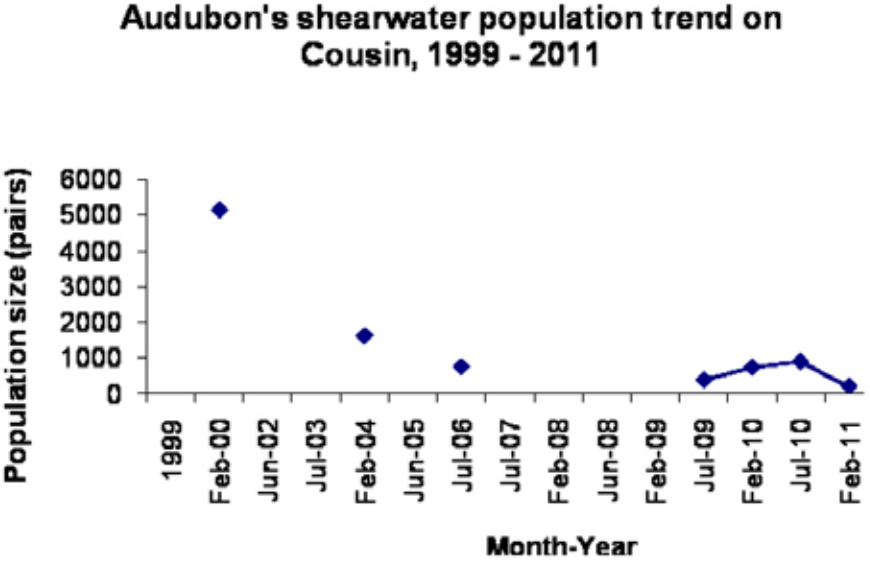



Photo: Audobon shearwater (Peter Chadwick)

Seabird news from Aride

By Licia Calabrese

During the last quarter on Aride Island the all-year round breeding performance monitoring of White tailed tropic bird and Fairy tern has carried on and a few unusual events were recorded like the early breeding attempts of the Lesser noddies and the breeding attempts of the Bridled terns on Booby Island.

Lesser noddy *(Anous tenuirostris)*

The Lesser noddy is the seabird with the highest population which breed on Aride Island during the South-East monsoon season and during 2010 a population of 158,000 breeding pairs was estimated. Although this species breeds almost exclusively between June and September, during the month of January 2011 the number of individuals present on the island started to increase and some of them started to show signs of nest building. In February, there were already several pairs incubating along the costal path in two small colonies. On the 10th of March a small census was carried out and in the first small colony close to the helipad 35 nests were recorded of which 20 with pullus and 15 with incubating adults. In the other colony close to the visitor's shelter 14 nests were recorded of which 6 with pullus and 8 with incubating adults. At the end of April the 26 pullus counted in March seemed to have all fledged. Moreover for the whole month of April a lot of birds started to gather in large number on the Casuarina trees along the beach crest.

Photo: Lesser Noddy

Brown noddy *(Anous stolidus)*

In June 2010, 4,373 breeding pairs were recorded during the annual seabird census. At the beginning of February a few pairs of Brown noddy were found breeding on the rocks located at the eastern part of the island. On the 9th of March during another visit in this area, several downy chicks were found. But on the 1st April no new signs of breeding were recorded. Similar to the Lesser noddies, the number of Brown noddies on the island increased throughout the month of April.

Photos: Brown noddy

Fairy tern *(Gygis alba)*

The last census of the Aride population (June 2010) reported a low estimate of 642 breeding pairs (a partial count) across the whole island. As usual, the Fairy tern nest monitoring is carried out once a week to establish the breeding success of the species. During the month of March we noticed a sudden drop of the monitored nests and most of them failed at C1 and C2 stage. Subsequently no new nests were found along the transect for the whole month of April. The cause of this decline may include food shortages and dry and hot weather conditions that have weakened the Fairy tern population.

White tailed tropicbird *(Phaethon lepturus)*
451 breeding pairs were counted across the whole island during the last census in June 2010. Similar to the Fairy terns this is only a partial estimation of the breeding population since they are all year round breeders. During the last three months we have found three individuals with metal rings: the first one was found in February and the alphanumeric code was J013452, the second one in March with the code J013324 and the third one in April with the code J013321. The three birds were found nesting in the same area. It will be interesting to find out from where they have been ringed.

Red tailed tropicbird *(Phaethon rubricauda)*
The sightings of several individuals of Red tailed tropicbirds (up to five at the same time) started in the middle of March 2011: the last sighting dates back to July 2010. The five individuals were seen several times flying and displaying together. The Aride staff is trying to assess the presence of one or more nests in the western side of the hill.

Sooty tern *(Onychoprion fuscatus)*
During the 2010 breeding season 41,628 breeding pairs were recorded during the seabirds census. In 2011 the first Sooty terns were sighted in the middle of March and 47 were counted on the rocks on the eastern side of the island. At the end of April hundreds of them were already flying around the island and roosting on the rocks at both eastern and western sides of the island.

Bridled tern *(Onychoprion anaethetus)*
The number of Bridled terns roosting on the island is recorded weekly and from June 2010 there was a maximum of 51 individuals. A pair was also found breeding at the eastern part of the beach but the breeding attempt failed at C1 stage.
On the 12th of January about 70 eggs of Bridled tern were found on Booby Island but during a follow-up visit only a few chicks and signs of poaching (ropes and torches) were found. This reminds us that unfortunately poaching is still a big problem for our islands and we should confront it together.

Roseate tern *(Sterna dougalli)*
The firsts Roseate terns were seen flying around the colony area on the 5th of May 2011. The same day a check around the western rocks (where they usually roost) was done and a flock of 14 individuals was sighted. During the 2010 breeding season unfortunately only one chick fledged in a colony of about 200 pairs (Patrícia Pedro and Jaime A. Ramos, 2010). During 2011 we really hope it is a much better season for this very interesting species!


Photo: Roseate tern

Articles:

Sooty Terns on Cousine Island

By Kevin Jolliffe

The Sooty Tern *(Sterna fuscata)* is probably the most abundant tropical seabird in the word with an estimated Western Indian Ocean population of 6.2 million pairs. It is a colonial breeder, forming large colonies on suitable predator free islands of up to and occasionally over a million. In the Seychelles they breed during the South East Monsoon season (May to August) and prefer flat islands with little vegetation cover, as a result, most colonies are situated on the flat coral islands and atolls of the Southern Island groups. Historical records from the 1950s estimate the Seychelles population at around two million pairs. Unfortunately due to over harvesting for their eggs, much of this number has been reduced with some colonies being totally abandoned. In the Granitics they bred on fewer islands, but many of these went extinct around the same time. At present Sooty Terns only breed on four granitic islands (Aride, Booby, Cousine and Recif).

Sooty Terns historically bred in large numbers on Cousine with up to 20 000 pairs recorded, but had deserted the colony by 1963 due to over harvesting of their eggs, with up to 45 000 eggs being harvested in 1955. Early records of eggs being harvested on Cousine started in 1954 and continued until the colony was abandoned in 1963, with a estimated total of 102 050 eggs harvested (for years where records were kept). Fortunately Cousine Island was purchased by its' present owner in 1992 and has been set aside as a conservation island of significant importance ever since. The first records of Sooty Terns returning to breed on Cousine were in August 2003, when approximately 150 pairs were discovered breeding on the steep slopes of the South Ridge. Since then they have continued to return to breed on Cousine every year. The present site preferred by the terns for breeding is located on the southern tip of the South Ridge, facing Mahe (South West). The area is quite steep, rocky, with thick matted coast grass *(Sporobolus virginicus)* growing between the rocks. In 2010 the birds prefer to breed on rocks where Beach Morning Glory *(Ipomoea pes-caprae)* had partly covered over the rocks. During the SE Monsoon season the strong winds and salt spray cause most of the morning glory to die back, thus exposing the rocks and providing some form of structure for the terns to construct a rudimentary base on which to lay their eggs. In previous seasons (2003 and 2004) the sooty terns have nested on top of the grass, apparently trampling it down with their sheer numbers.

The South Ridge nesting site, where the Sooty Terns nest on rocks covered in *Ipomoea* and in the grass (back).

In 2005, it was decided to try and manage the breeding site, by regularly cutting the grass in an attempt to stimulate more birds to return to the area. In the 2007, after cutting the area, it was discovered that large numbers of Wedge-tailed Shearwaters had found a preference to the newly cut area and started digging numerous burrows in the middle of the sooty colony. Unfortunately the disturbance by the shearwaters particularly at night seemed to deter the most of the terns, which abandoned their eggs, with only those nests on rocks being successful. After a number of labour intensive seasons of cutting the grass, without any marked increase in numbers, it was eventually decided in 2010 not to cut the South Ridge area and instead concentrate on a new and hopefully more productive site, the North Point. The terns returned to the site on the south ridge in 2010 and bred successfully despite the vegetation not being managed.

The North Point is a much larger area, similar to the South Ridge site, but sloping gently and with far fewer rocks. This area was reputed to have been a historical site for a Sooty Tern colony. It is suspected that up to and possibly over 1000 pairs could breed in this area under correct management. In 2007 the whole area was overgrown with Beach Morning Glory and almost no grass was present. Since then intensive management of that areas has been carried out and approximately a quarter hectare (50x50m) has now been restored back to a grass. The area received its first cut with a brush cutter in 2010, but unfortunately too late in the season for the sooties to consider nesting at the new site, however they were certainly showing much interest in the area when it was visited by the Sooty Tern expert Chris Feare. This season we have been well prepared and the area has already received two cuts in preparation for the next breeding season.

The North Point at it looked in 2007.

The North Point starting to be cleared in 2009

Maintenance of the area starts as early as March if possible, with the first cut taking about four days to complete. This is done with a brush cutter and is quite intensive work as the grass is usually dense and matted after a good wet seasons' growth. After cutting, all the grass is raked off the area, leaving it clean. This also helps for the next one or two follow-up cuts depending on the speed of the resprouting grass. The follow-up cuts usually only take half a day and often don't require raking. Once these have been completed (by mid May,) the dry season has arrived and the grass growth slows down. Now it's just a matter of waiting for the terns to make the final decision.

The North Point as it looks today

Sooty Tern Breeding records for Cousine Island since 1992

2003: Approximately 150 pairs

2004: Approximately 600 pairs

2005: No nesting recorded

2006: Approximately 70 pairs

2007: Approximately 20 pairs

2008: No nesting recorded

2009: Approximately 20 pairs

2010: Approximately 50 pairs

Historical records of Sooty Tern eggs harvested from Cousine Island

1954 = 10500 to 11250 eggs

1955 = 42000 to 45000 eggs

1956 = 2500 eggs

1957 = 0 eggs

1958 = 21000 eggs

1959 = 8400 eggs

1960 = 10000 eggs

1961 = 3500 eggs

1962 = 400 eggs

1963 = 0 eggs

1964 – 1974 = No eggs harvested

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The vanishing Sooty Terns

by Chris Feare, WildWings Bird Management

One of the most spectacular experiences of the ornithological world is embodied in the sight, noise and smell of a huge nesting colony of Sooty Terns. Sometimes literally millions of black and dazzlingly white birds indulge in perpetual frenetic activity, constant calling bombards the ears of people who dare to venture into the colony with sound levels exceeding 100 decibels, and, especially after a shower of rain, the smell of guano reminds us of the huge input of marine nutrients that these birds contribute to otherwise impoverished tropical island ecosystems.

Seychelles is blessed with some of the largest Sooty Tern colonies in the Indian Ocean. Furthermore, two of these colonies, on Bird and Aride Islands, are accessible to tourists – a rare attribute for Sooty Tern colonies worldwide as they prefer to nest on isolated oceanic islands. While tourists can marvel at the to-ings and fro-ings in these colonies, a brief visit is unlikely to reveal to them the threats that these birds face when they come to land to breed. Their preference for isolated islands stems from such places historically being free of mammalian predators (including man). Sadly, few islands have retained this status but in Seychelles rats and cats have been removed from some islands to provide better conditions for Sooty Terns and other birds. The ground-nesting habit of Sooty terns also renders them vulnerable to changes in vegetation, since they prefer open habitats with low herb vegetation rather than the dense forest or coconut woodlands found on many of Seychelles' islands. Unless adequately managed, even the open habitats used by nesting birds can develop into bush or woodland following disturbance to the nesting birds or to periods of heavy rain leading to lusher than usual vegetation growth. With sometimes six or more nests per square metre, each with a large egg, Sooty Tern colonies represent easy pickings for people and in Seychelles the eggs are both harvested commercially and also collected illegally, the latter often accompanied by the killing of adults and sometimes chicks as well. The commercial harvest is regulated by the

Photo: Sooty terns (Chris Feare)

government but guidelines need constant revision as islands and their bird populations change, due to a variety of causes, and harvest regulations and monitoring of the harvest and of the populations that produce the annual crop may need improved sensitivity and firmer policing to ensure sustainability of the practice.

The need to return to the nesting island to care for the egg or chick imposes limits on how far the parents can travel in search of food, usually small fish and squid that are driven to the ocean surface by shoals of tuna and other predatory fish or, sometimes, mammals such as dolphins. Predatory fish stocks are of course themselves under intense pressure from human predation and their depletion could have impacts on the number of Sooty Terns and many other tropical oceanic birds.

After several decades of study, we now know much about the Sooty Tern's life on and around the nesting colonies. However, a major mystery remains.

The Sooty Tern breeding season in Seychelles begins in late May or early June and continues until August to October, when the last youngsters leave the colonies. After this, the colonies are deserted until the next breeding season begins. Even the seas around Seychelles appear to be shunned by the birds but where they go is unknown. Of the 25,000 or so birds that have been ringed in Seychelles and Amirantes colonies over the last 40 years, only four have been recovered away from the islands. Individuals in southern India, Sri Lanka, northern Australia were found on land and may have resulted from storms and thus may not reflect the birds' preferred distribution at sea. The fourth bird was found alive but exhausted on a ship off the Somali coast; it was cared for and released.

Unfortunately, satellite transmitters are still too large to be attached to Sooty Terns so that we cannot record their day-to-day movements while they are away from Seychelles. However, the advent of lightweight dataloggers that record geographic location (commonly called geolocators) offers opportunities for discovering the non-breeding season distribution and movements of Sooty Terns. Geolocators must be attached in one breeding season, fitted to a ring on the bird's leg, and the marked individuals need to be re-trapped the following season in order to download the stored information.

Following frantic fundraising and liaison with the owners of Bird Island, I and a small team of assistants are ready to put geolocators on some of the island's incubating adult Sooty terns in June this year. We shall return in 2012 for a prolonged period of searching for the marked birds in order to discover where they have spent their non-breeding season. This exciting information, made possible by a recent technological advance, will hopefully indicate where Seychelles Sooty Terns spend their marine lives. This may have wider implications, since locations suitable for supporting the non-breeding activities of the region's most numerous oceanic birds might well be important for other species of seabird, along with marine mammals, reptiles and fish, thereby highlighting areas of ocean and their characteristics that warrant protection for their biodiversity significance. Funding contributing to the purchase of geolocators and logistics for this year's work has been provided by a wide variety of donors: James Cadbury, Robert Gaines-Cooper, Brian and Margaret Jasper, Kang Nee, Colin and Fiona Short, Amanda O'Keefe, WildWings Bird Management and the Percy Sladen Memorial Fund (which sent a major zoological expedition to explore Seychelles in the early 20th century). We are immensely grateful for this help, and also for the huge support and encouragement of Bird Island, and for collaboration with Matthieu Le Corre at the University of Reunion, and the Seychelles Department of Environment. Further funding is being sought in an attempt to secure the entire project.

Photo: Sooty terns (Dao Nguyen)

Black-naped Terns on St François Atoll

By Aurelie Duhec[1], Aurelien Nahaboo[2] & Pierre-Andre Adam[3]

The Black-naped Tern breeding colony observed on St François Island is of high ornithological interest. In 2008, the first breeding record on the island was confirmed making a new estimation of population for Seychelles and Afrotropical region (Adam et al. 2009). In early 2011, a second confirmed Black-naped Tern nesting site increases the importance of the island for this species. Interestingly, in both 2009 and 2011, the ICS team suspected hybridisation between a Roseate Tern and BNT, and such an event has been reported only once before in the scientific literature (Lashako, 2004). The constant presence of a Roseate Tern year after year is exciting and makes the breeding colony exceptionally interesting for the scientific community. St François qualifies for consideration as an Important Bird Area for Black-naped Tern (for which the current threshold is just two birds) as well as for three species of congregatory waterbirds (Adam et al. 2009).

Black-naped Tern breeding areas

The Black-naped Tern *Sterna sumatrana* breeds from the western Pacific to the western Indian Ocean where it is represented by race *mathewsi.* Seychelles lies at the western limit of the species' range but holds almost the entire African regional population. As a result, the BirdLife International threshold for the species to qualify a site for consideration as an Important Bird Area (IBA) is currently just two birds.

Photo: Black naped tern adult and chick

In Seychelles, this species is currently known to breed on Aldabra (50-70 pairs), African Banks (5-10 pairs), St. François Atoll (13-18 pairs), where a very recent discovery of nesting site on a wreck has increased the total number of pairs, St. Joseph Atoll (10-20 pairs), Cosmoledo (30-50 pairs), Farquhar (20-40 pairs) and possibly Bancs Providence. It has also been recorded as a vagrant to Bird, Aride, Cousin and La Digue. In 2009, Adam et al. suggested the whole Seychelles' population to be 125-205 pairs (or 375-615 birds).

Presence of Black-naped Tern on St François Atoll

St. François Atoll is an atoll of about 18 ha (land) and a lagoon of approximately 5,700 ha. It lies close to Alphonse Atoll at the southern edge of the Amirantes archipelago approximately 400 km south of Mahé. It is uninhabited but on Alphonse a small resort and an Island Conservation Society centre opened in 1999 and in 2007 respectively.

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ICS began recording regular monthly counts of birds in February 2007. These records confirm that Black-naped Terns are present throughout the year. The maximum counts for islands in the Alphonse Group have been as follows:

- Alphonse (26 Sep 2009): 47 birds; roosting on the sand flat at Pointe Dot.
- St. François (18 Feb 2009): 32 birds; roosting on the sand bank on One Palm Island.
- Bijoutier (20 April 2007): 26 birds; 5 pairs were observed copulating along the south beach.

Four years of confirmed breeding records of Black-naped Terns on St François Atoll.

Black-naped Terns have been regularly observed for several years and breeding was suspected on St. François Atoll (Table 1). This was confirmed for the first time in March 2008 by ICS staff with the help of the Alphonse Island Resort fly-fishing guides. Since 2008 successive breeding success records have been followed on a yearly basis.

In March 2008, 10 active nests (c.10 pairs) were observed concentrated in a small coral rubble patch at the northern end of One Palm Island (a sand bank) (see Fig 1: Site 1), and another nest with two eggs on a sand bar which had formed on the western side of St. François Island within the last 8-9 years.

In February 2009, 16 breeding pairs were recorded - 7 nests with 1 egg and 9 nests with 2 eggs. Unfortunately, at the end of March 2009 only 5 young successfully fledged. In June 2009, it was observed that the Black-naped Terns were breeding again but not on One Palm Island (St. François), but on the beach platform amongst the coral rubble on the outer edge of the island (see Fig 1: Site 2). 14 breeding pairs were recorded - 5 nests with 1 egg and 9 nests with 2 eggs of which a minimum of 9 chicks successfully fledged.

In March 2010, 13 active nests were recorded – 9 nests containing 1 egg and 4 nests with one downy chick (Site 2). A minimum of 5 birds successfully fledged on this occasion, which constituted a breeding success consistent with the one observed in February 2009. In April 2010, at the beginning of the month, the nesting was coming to an end with a total of 5 nests with 1 egg and 6 fledged birds. In May 2010, 12 pairs were apparently preparing for a new nesting event, which was unfortunately not monitored due to transport constraints (Site 2).

February 2011, 14 pairs with a minimum of 5 nests were breeding on the coral bank close to the high tide line (Site 2). A month later, 10 pairs were observed with 2 partially feathered chicks and one downy chick (The downy chick was pecked on the head; it probably ran into the territory of another pair and was attacked by an adult). In April, 11 pairs, were present with 2 nests having 1 egg and 6 chicks: 3 fledged chicks, 2 partially feathered chicks and 1 downy chick. In the same month, the fly fisherman Wayne Haselau confirmed that 2-3 pairs of Blacked-naped Terns were nesting on the Lolly pop wreck at the South East side of St François (Fig 1: Site 3). This new information increases the importance of the island for having two confirmed Black-naped Tern nesting sites. Unfortunately, this may also mean that there are too many constraints and poor success rates within the main colony forcing certain pairs to establish sub-colonies elsewhere. And small sub-colonies such as these are normally vulnerable to predators and disturbance which are likely to fail.

Overall, it seems that 2009 was a very good year for Black-naped Terns on St François Island. The breeding population for that year (15-20 pairs) is greater than the other years (10-15 pairs in 2008 and 2010; 13-18 in 2011). It was also the best year in terms of the number of successful chicks fledging. Monitoring reveals the existence of two nesting periods per year, around February-April and June-September.

Monitoring during 2010 and 2011 demonstrates a nesting preference for Site 2 (Fig 1). The main cause for the change of nesting site is possibly due to predation (Hermit Crab and Grey herons) and/or disturbance by fly fishing activities. Even if we have noticed that the birds do not seem to be too bothered about people coming fairly close (25m), if they feel threatened they easily abandon their nest and leave eggs exposed to predators. The possibility also exists that the colony moved because of climatic disturbances since Site 1 (Fig 1) is very exposed to wind and waves in bad weather. In 2011, the NW monsoon was particularly rainy and windy. The dense vegetation of Scaevola at Site 2 acts as a wind barrier and also offers shelter for chicks against predators.

Photo: Black-naped tern egg


Photo: Black-naped tern chicks

Multiple factors need to be taken into consideration in order to understand the breeding successes of these seabirds. Interestingly, in 2007 Monticelli et al., demonstrated that the clutch size of Roseate Terns appears to be a sensitive reproductive parameter reflecting the food conditions prevalent in the surrounding waters. Moreover, the authors hypothesize that Roseate Tern females may rely on Sea Surface Temperature conditions early in the season to anticipate the local increase in food supply, which coincides with seasonal phytoplankton blooms and time their egg laying accordingly. This could possibly explain the differences observed at the start of the Black-naped Terns breeding season on St François.

Is a Roseate Tern really breeding with a Black-naped Tern on St François Island?

Photo: Roseate tern

Since 2008, a single Roseate Tern Sterna dougallii was observed in the Black-naped Tern breeding colony (except in 2010), always very protective over eggs while some Black-naped Terns sit tight. Moreover, an unusual egg, being about twice the size as a normal Black-naped Tern egg, was found in February 2009. Unfortunately, the egg was lost and no proof of hybridisation could be confirmed. Such an event is really rare but not impossible since in 2004, in Australia, the first evidence of hybridisation between a Roseate and a Black-naped Tern was confirmed by DNA investigation (Lashako, 2004).

Apart from the Roseate's protective behaviour against intruders, we never saw the bird interact with chicks or even feed one. The intriguing question remains, is this bird really breeding with a Black-naped Tern? The answer is probably yes, if not, why would a single Roseate stay during four consecutive years (except in 2010) in a Black-naped Tern colony?
It is a real necessity to access the island periodically in order to assess the breeding success of the colony, the factors that affect it and also collect proof of hybridisation between the Black-naped Tern and Roseate Tern. The necessity of monitoring St François during the SE monsoon is now a clear fact since it is believed that the Black-naped Terns are breeding during this time, and a number of other species are also thought to be possible breeders on the atoll. The main constraint during May-September is the availability of a boat able to withstand the rough sea crossings, which considerably limits the possibilities for any close monitoring at this time of the year on St François.

The ICS staff wishes to thank the fly-fishing guides for their help during the monitoring of this colony, especially Wayne Haselau, as they are able to observe the colony everyday of the week as they fish close to the area where these birds nest.

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Table 1: summary of the Black-naped Tern breeding colony from March 2008 to April 2011.

Month	Year	Site	N° pairs	N° nests	N° eggs	C 1	C 2	C 3	C 4	Roseate Tern present
March	2008	One Palm Island	11	11	16					YES
" "		" "	12		21	2				YES
" "		" "	12	7	3	9				YES
February	2009	One Palm Island	16	16	25				5	YES
" "		" "			23	2				YES
" "		" "								YES
June		Beach P latform [EF] - outer edge of SF	?	3	3				9	YES
" "		" "	13	6	11					YES
March	2010	" "	9	13	9				6	NO
May		" "	0							NO
" "		" "	12							NO
February	2011	" "	14	5						YES
March		" "	10	?		1				YES
April		" "	11	8	2		1	2	3	NO

Fig 1: St. François Atoll showing approximate locations of Black-naped Tern breeding colonies. Source: Habitat Map produced by Living Oceans Foundation – Not to Scale.