



EPIC Seabird Breeding Atlas: Summary of Seabird Findings on Saint Lucia: April 24 2009

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Introduction

Environmental Protection In the Caribbean (EPIC) is undertaking breeding seabird surveys in the Lesser Antilles over a two year period (2009-2010) to the ends of creating a Breeding Seabird Atlas for the Lesser Antilles. The first season of surveys commenced on Sint Maarten in February 2009 and will end in Grenada in June 2009. Islands surveyed to date include: Saba, St Eustatius, St Kitts and Nevis, Redonda, Montserrat, Antigua and Barbuda. The second year of the project will start in December 2009 and survey the islands in the opposite direction, thereby, where possible, obtaining Winter and Summer breeding records for each island surveyed.

Each island participating in the project will receive a copy of the atlas. The atlas will also be available on-line through interactive maps at the West Indian Seabird GIS. The data will also be incorporated into the Caribbean Waterbirds Conservation Plan, Society for the Conservation and Study of Caribbean Birds.

Method

On arrival into St Lucia, Rodney Bay, EPIC (Katharine Lowrie, Field Manager and Megan Friesen, Intern) met with the Government's Forestry Department to request a permit to undertake seabird surveys on the island. Mr Bob (Deputy Chief) granted permission for the surveys to begin, including on Maria Island where he gained consent from the National Trust who oversee work on the island.

Desk-top Study

The EPIC team had limited data on breeding seabird distribution on St Lucia except that provided by Anthony, D. and Dornelly, D. (2002) and (2008).

Maria Major and Maria Minor were highlighted as breeding seabird hotspots on St Lucia, with Red-billed Tropic Bird, *Phaethon aethereus* (12 pairs) Roseate Tern, *Sterna dougallii* (10 pairs), Bridled Tern, *Sterna anaethetus* (10 pairs), Sooty Tern, *Sterna fuscata* (38, 147) and Brown Noddy, *Anous stolidus* (10 pairs) found breeding during the 2002 survey. The paper also noted other areas on St Lucia where breeding seabirds were believed to be nesting including: Frigate Island (Magnificent Frigate Bird, *Fregata magnificens* and Brown Noddy), Anse de Chastanet (White-tailed Tropic Bird, *Phaethon lepturus*), Cape Moule a Chique and North of Louvet Beach (Red-Billed Tropic Bird), L'Islet and L'Islet a Ramier Islands (Roseate Tern). Fous Islands, Lapin Islands and Burgot Rocks were highlighted as potential Brown Booby, *Sula leucogaster* nesting sites, but no data had yet been gathered. Praslin was also indicated as a site worth surveying for seabirds, but again no records were available.

The St Lucia Bird Life Chapter identified Pointe Sable National Park (LC005) as an Important Bird Area *'The aim of the IBA programme is to identify and protect a network of sites critical for the long-term viability of naturally occurring bird populations, across the ranges of bird species...The selection of IBAs is achieved through the application of standard, internationally recognized criteria'* This allows sites to be compared at a global scale.

'IBAs are selected based on the presence of: species of global conservation concern, assemblages of restricted range bird species, assemblages of biome- restricted bird species and globally important congregations of birds.' Point Sable National Park is an IBA due to the presence of threatened and congregatory birds. Sooty Tern, Bridled Tern, Roseate Tern, Royal Tern, *Sterna maxima* and Red-billed Tropic Bird all breed in regionally important numbers.

Field Work

On the 17 April 2009, EPIC (David Lowrie, Captain of sail-boat Lista Light, Katharine Lowrie and Megan Friesen) undertook Winter water-based sea-bird surveys around the island of St Lucia. They sailed (motor-assisted) North from Rodney Bay and down the East coast of St Lucia to Maria Islands at the South of St Lucia, where they anchored. The boat was manoeuvred as close as possible to the coastline and offshore islands to allow an accurate survey of breeding birds. The passage was not straightforward as the entire area is incompletely surveyed, with reefs, rocks and rough seas. Few yachts travel down the windward side of the island.

Binoculars (8x45 waterproof) were used to search the coastline for breeding seabirds. Areas where seabirds (or their often conspicuous white chicks) were observed flying, roosting or perching were inspected as well as areas of guano. The boat was manoeuvred closer to islands/coastline where seabirds were found nesting and several pass bys were made if necessary to obtain a complete, accurate count. A digital camera (FugiFilm, FinePix S5800) was also used to take photos of breeding colonies, aid counting and serve as a visual record.

Breeding was recorded when birds were noted sitting on nests, with chicks, or displaying accepted signs of breeding. Aerial counts of Red-billed Tropic Birds were used to determine the number of breeding birds, as the species seldom flies near to land when they are not breeding. (Walsh-McGhee, 2000) Other conspicuous breeding behaviour exhibited by the species is when returning to nests

they often make several attempts to land. Holes with guano in cliff sides, in Red-billed Tropic Bird breeding areas, were noted as potential Apparently Occupied Nests (AONs) when individuals of the species were seen nearby, as were landings or attempted landings by individuals.

A GPS (Garmin GPS 72) reading using Universal Transverse Mercator (UTM) datum was noted whenever seabird records were registered. The boundary of large colonies of seabirds (>500 birds) were marked with GPS readings at the North, South, East and West of the colony. The following data was also recorded: the time, date, location (name of area), survey type (water-based, land-based aerial count, land-based ground count of nests) species, non-adult, chicks, nests, eggs, AON, predated adult, predated non-adult, predated chick, predated egg and notes. When islands were examined, but no seabirds observed, negative data were entered.

On reaching Maria Islands a kayak was used to paddle to Scorpion Island which was inaccessible by the sail-boat due to a ring of reefs. Land-surveys were then possible. The Maria Islands were accessed from the boat by kayak and swimming. The trails and beach front were walked on Maria major and the entire island of Maria Minor walked. Signs of breeding on the islands were recorded. All land based surveys were conducted early in the morning (or in over cast weather) and rapidly to cause minimal disturbance to seabirds. (Seabird eggs and chicks can die in the hot sun if left unattended for more than 20 minutes (Burger and Lawrence, 2000)).

Surveys continued around the West coast of the island by sail-boat as described above, ending in Rodney Bay on 21 April 2009, where the surveys had commenced. Counts of non-breeding seabirds were also made.

Any threats to seabirds were recorded including: mongooses, cats, dogs, cows, goats, rats and people. Three rat traps were baited with peanut butter on Maria Major in the early morning on the first day of survey and removed early the following morning.

Preliminary Findings

On 18 April 2009 over 1500 Sooty Terns were observed on Maria Major during aerial surveys and in the surrounding sea (foraging as far as Moule a' Chique). The birds appeared to have just returned from their wintering grounds and it is likely that further birds are yet to return. There were no signs of nests or eggs, but birds were seen mating and alighting in potential nesting habitat. Over thirty Brown Noddies were also observed perched on cliffs on Maria Major and foraging in the sea off Moule a' Chique. Two Brown Noddies were seen flying with nesting material on Maria Major. Two Red-billed Tropic Birds were also noted flying near the Eastern cliffs of Maria Major. No birds were recorded on Maria Minor or Scorpion Island.

Other than Maria Islands, breeding seabirds were noted in the following locations: Fous Islands (Brown Booby adults and chicks), Falaise Point (Brown Booby adults and chicks), Tortue Point (Red-billed Tropic Birds), Povert Point (Brown Booby adults and chicks), Trou Gras Point (Red-billed Tropic Birds) and Pointe de Caille (Red-billed Tropic Birds). No seabirds were found nesting on the West coast of St Lucia, apart from Anse de la Liberte, Anse John, Grand Caille Point where potential Red-billed Tropic Bird AONs holes with guano were observed, but no adults recorded.

No rats were trapped on Maria Major. Two fishermen and two local people (activity unknown) were observed on Maria Major during the visit. A tour group from the National Trust was also seen. Bait stations were observed on Maria Minor. No other threats were recorded on the Islands during the surveys, but Anthony and Dornelly (2009) reported having seen Carib Grackle, *Quiscalus lugubris* feeding on Sooty Tern eggs in the past (the Grackle was also abundant during our surveys). Cows, mongooses and rats were observed on the main island.

Other seabirds noted, but not breeding during the survey included: a pair of Masked Boobies *Sula dactylatra*, a group of Magnificent Frigate Birds and a single adult Brown Pelican *Pelecanus occidentalis* on Fous Islands. Laughing Gulls *Larus atricilla* and Royal Terns were also noted foraging around the island as were Brown Boobies and Magnificent Frigate Birds.

Ongoing Surveys and Discussion

EPIC intend to return to St Lucia in 2010 to undertake a second breeding survey, preferably during the summer breeding season. They will repeat the survey method outlined in this paper. It is hoped that the National Trust will share data for seabirds nesting on Maria Islands during 2009 to inform the Lesser Antilles Seabird Breeding Atlas.

It is recommended that seabird surveys are undertaken on St Lucia in the future (at least every five years) to better understand seabird distribution and trends on the island and off shore islands. (Frigate Island, in particular would benefit from surveys, to gauge the impact of the nearby development on breeding seabirds).

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References

Anthony, D. and Dornelly, A. (2002). Breeding Seabirds of the Caribbean, Saint Lucia, Sea Bird Conservation in the Caribbean.

Anthony, D. and Dornelly, D., St Lucia, (2008). in Wege, D.C. and Anadon-Irizarry, V. (Eds.), Important Bird Areas of the Caribbean, Key sites for Conservation, Bird Life International, UK.

Anthony, D. and Dornelly, D. (2009) Meeting with Government Forestry Department, Union, St Lucia.

Burger, A. E. and Lawrence, A. D. (2000). Seabird Monitoring Techniques in Schreiber, E. A and Lee, D.S. (Eds.). Status and Conservation of West Indian Seabirds. SCSCB., USA.

Harrison, P. (1983). Seabirds. And Identification Guide. Houghton Mifflin Company, Boston.

Raffaele, H., Wiley, J., Garrido, O., Keith, A. and Raffaele, J. (1998). Birds of the West Indies. Christopher Helm, UK

Walsh- McGehee, M. (2000). Status and Conservation Priorities for White-tailed and Red-billed Tropicbirds in the West Indies in Schreiber, E. A and Lee, D.S. (Eds). Status and Conservation of West Indian Seabirds. SCSCB., USA.