

Cruise report seabird and cetacean survey Saba bank expedition October 2011

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Cover photo: Brown Booby trying to catch a flying fish, between Saba and Sint Maarten, 28 October 2011. Photo: Hans Verdaat, IMARES.

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Introduction

In October 2011 an expedition took place to the Saba Bank, on board of the ship the Caribbean Explorer II. Main aim of the expedition was collecting data on underwater fauna and coral reefs. Apart from that data were collected on nutrients, water flow, sponges and seabirds and marine mammals. Data on the last group were collected by deploying acoustic data loggers, and by means of visual surveys. These visual surveys were conducted whenever the other activities permitted it.

This cruise report presents an brief overview of the results obtained during the October 2011 survey. It contains a short day to day report, a full list of all birds, mammals and particular pieces of floating matter seen, and a brief presentation of the results. Furthermore the report contains a brief account of observed birds on Sint Maarten, since published accounts on the birdlife of the island are scarce.

Narrative

Arrival on Sint Maarten 18 October. Bird watching all over the island on several occasions till 21 October; local birdwatcher Ronald Pieters accompanied us in the afternoon of 20 and 21 October.

Boarding the Carribbean Explorer II on 21 October. On transit from Sint Maarten to Saba (*Figure 1*) in the afternoon to pick up the Marine Park boat, Lady Rebecca, and two team members from the Saba Conservation Foundation. Sailing to the Saba bank in the fading light. I the period 22-28 October ten diving spots on the Saba bank were surveyed by the diving teams, counts of marine mammals and seabirds were conducted while on transit between the diving spots. Due to high swell and waves, the night of 27 October was spent on the leeward southwestern side of Saba. Sailing to Sint Maarten, after clearing customs in Saba, on 28 October. Birding around Philipsburg in the last hour before sunset. On 29 October 'wetlands' around Sint Maarten were visited for bird watching.

Methods

The survey was conducted from the Caribbean Explorer II, a 32 m long vessel. Counts were conducted from the bow, where three chairs were secured on the deck in front of the bridge. The eye height of the observers was about 9 m. All birds, marine mammals and particular floating matter (balloons and fishing vessels) were logged at one side of the ship, as it sailed along the random transect lines. To this end, one survey team of two observers detected, identified and counted these object within a strip of 300 m wide. Standardized counting methods from the European Seabirds At Sea (Tasker et al. 1984) were used. All birds seen were logged per 5-min counts, only those seen within the counting strip, and –in case of flying birds- at the correct snapshot moments (once every minute). The behaviour of observed birds and marine mammals was noted according to Camphuysen & Garthe (2004). GPS positions and environmental conditions were recorded. Whenever possible observations were made during other activities, these were recorded as off-effort observations.

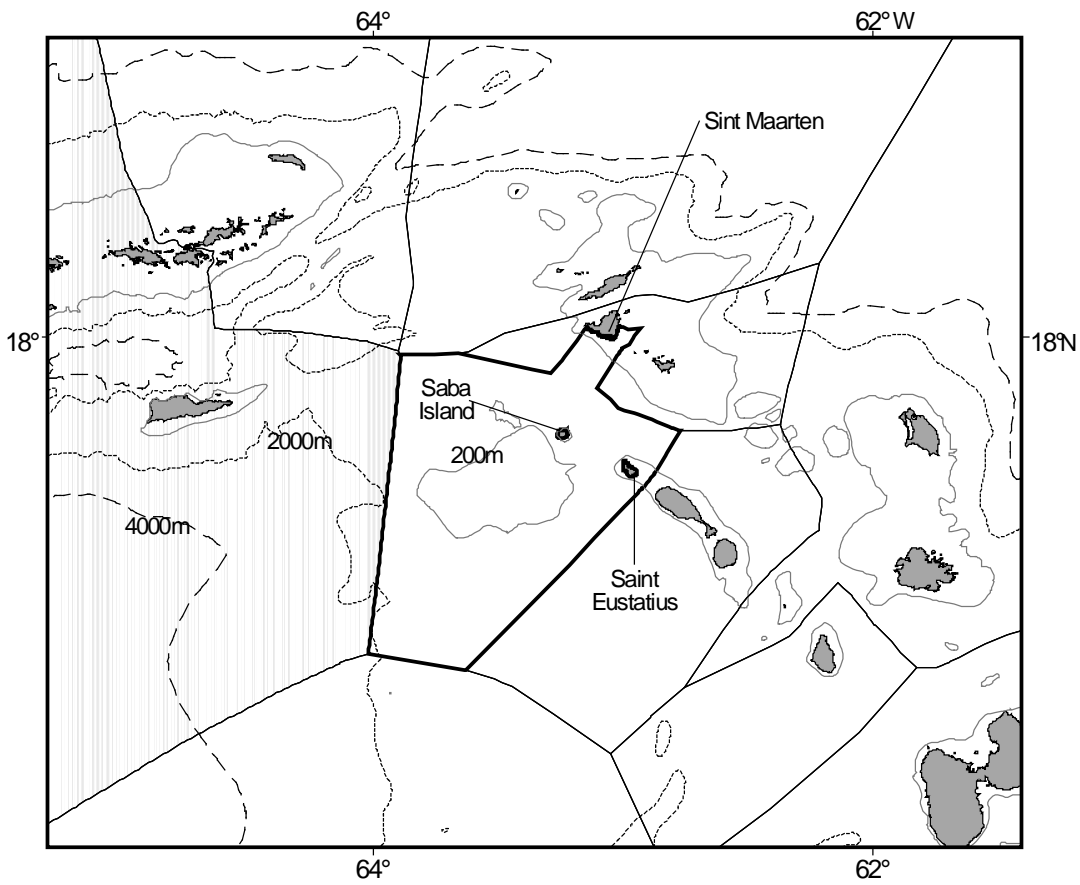


Figure 1. The Windward islands and their EEZ around Saba, St. Maarten and St. Eustatius. Saba Bank is indicated by the 200 m contour.

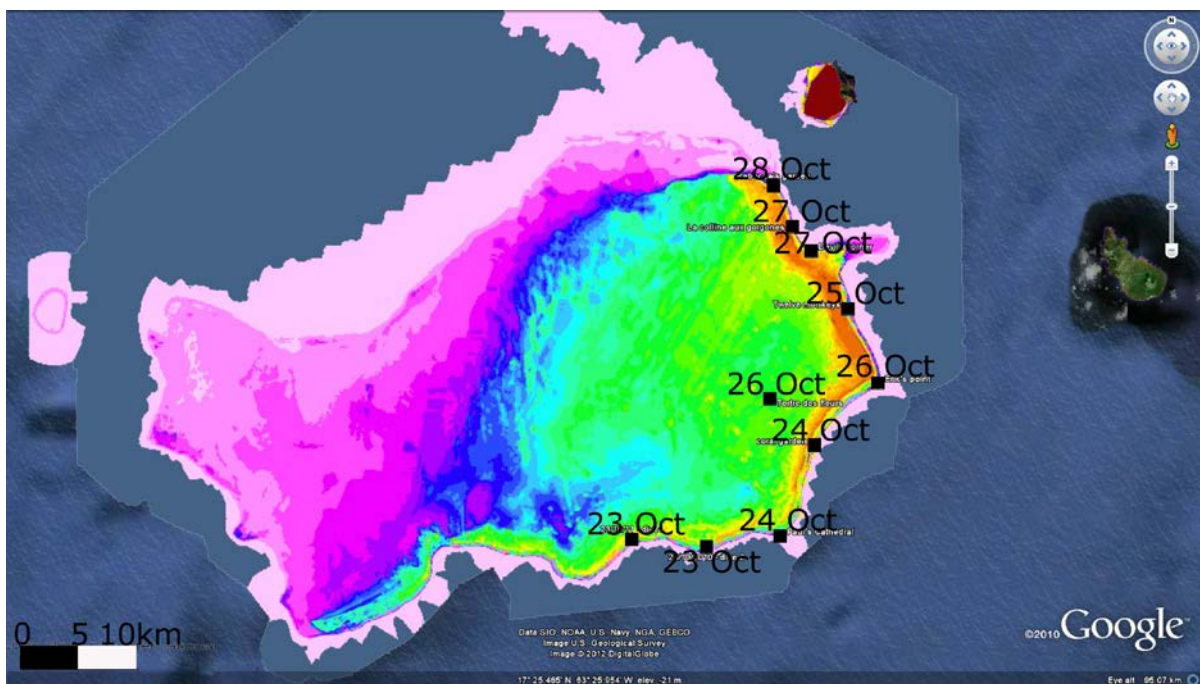


Figure 2. Visited diving spots on the Saba bank, 23-28 October 2011.

Results

Seabirds

The survey was conducted from 22-26 October 2011 in good to windy conditions. Due to rolling of the ship and spray, surveys could only be conducted in sea states of 4 Beaufort or less, depending on swell height and the sailing- and wind direction. In total 51.7 km could be surveyed, with a strip width of 300 m representing a surveyed area of 15.5 km². The survey area is presented in *Figure 2*.

All birds, marine mammals and other objects seen during the survey are presented in *Table 1*. On effort four bird species were seen, whereas no marine mammals were observed. Off effort, six bird species were recorded.

Table 1. Survey effort and observations of birds and marine mammals. Numbers of off effort observations are presented in classes: A = 1; B = 2-5; C = 5-25; D = > 25.

		22-oct	23-oct	24-oct	25-oct	26-oct
Total counts		21	18	7	16	7
Area (km ²)		5.0	3.8	1.0	2.8	2.9
Length (km)		16.8	12.7	3.3	9.3	9.6
Counts with no observations		8	9	3	15	6
Unidentified shearwater	<i>Puffinus spec.</i>		1			
Brown Booby	<i>Sula leucogaster</i>	5		1		
Magnificent Frigatebird	<i>Fregata magnificens</i>	1	5	1		
Peregrine Falcon	<i>Falco peregrinus</i>					1
Cliff Swallow	<i>Hirundo pyrrhonota</i>		1			
Unidentified flying fish		19	13	8	2	
Off effort						
Audubons Shearwater	<i>Puffinus lherminieri</i>				A	
Red-billed Tropicbird	<i>Phaethon aethereus</i>					A
Brown Booby	<i>Sula leucogaster</i>	B			C	C
Magnificent Frigatebird	<i>Fregata magnificens</i>	B	B	B	B	C
Lesser Yellowlegs	<i>Tringa flavipes</i>			A		
Barn Swallow	<i>Hirundo rustica</i>			A		

Audubon's Shearwater

At sea one Audubon's Shearwater was seen, off effort, on the Saba bank (17.347 W, 63.252 S) on 25 October. In the evening of 27 October, while anchoring on the southwest side of Saba opposite the cliffs of Great Hill between Ladder Point and Cape Point (17.624 W, 63.26 S), several calling individuals (ca 5) were heard and seen flying overhead. Birds were heard calling during flight, and apparently from the land surface, indicating the presence of prospecting or breeding birds at this site. This constitutes the first observation of shearwaters with nest indicating behaviour at this site (Kai Wulf, pers comm). On the east side of Great Hill, near The Bottom, vocal responses of shearwaters to nocturnal call-playback were reported in April (1) and May (3) 2004 (Collier & Brown, 2009). Thus rendering the area around Great Hill the only known site with nest indicating behaviour outside Rainforest Ravine, the only site where nesting of this species has been confirmed in recent decades .

Red-billed Tropicbird

Observations of Red-Billed Tropicbirds were restricted to the near shore waters of Saba on 28 October. Further offshore, only one observation was made, off effort, on the Saba Bank on 26 October.

Brown Booby

During the survey Brown Boobies were restricted to areas between the Saba bank and the island of Sint Eustatius. On the crossing from Saba to Sint Maarten on 28 October at least 8 individuals accompanied the ship, hunting for flying fish.



Left: Adult Brown Booby; right: flying fish. Photo: Hans Verdaat

Birds on Sint Maarten

All birds observed during our stay on Sint Maarten are presented in *Table 2*. Since no systematic bird counts were made, numbers are presented in classes. Widespread species, e.g. doves and crackles, are under recorded. Details on the single observations can be found on www.observado.org.

Table 2. Observed bird species on Sint Maarten during birding in the days before and after the survey, 18-22 and 28-29 October 2011. Numbers in classes: A = 1, B = 2-5, C = 5-25, D = 25-100, E > 100.

Species	First sighting	Number of sightings	Number of birds
Blue-winged Teal <i>Anas discors</i>	19 Oct 2011	5	C
Cinnamon Teal <i>Anas cyanoptera</i>	19 Oct 2011	2	A
White-cheeked Pintail <i>Anas bahamensis</i>	19 Oct 2011	5	E
Ruddy Duck <i>Oxyura jamaicensis</i>	19 Oct 2011	4	D
Yellow-crowned Night Heron <i>Nyctanassa violacea</i>	19 Oct 2011	7	C
Green Heron <i>Butorides virescens</i>	18 Oct 2011	8	C
Cattle Egret <i>Bubulcus ibis</i>	18 Oct 2011	10	E
Great Blue Heron <i>Ardea herodias</i>	19 Oct 2011	4	B
Little Blue Heron <i>Egretta caerulea</i>	29 Oct 2011	1	A
Snowy Egret <i>Egretta thula</i>	19 Oct 2011	13	E
Western Great Egret <i>Ardea alba</i>	19 Oct 2011	9	D

Species	First sighting	Number of sightings	Number of birds
Magnificent Frigatebird <i>Fregata magnificens</i>	18 Oct 2011	13	D
Brown Pelican <i>Pelecanus occidentalis</i>	18 Oct 2011	11	E
Brown Booby <i>Sula leucogaster</i>	18 Oct 2011	6	D
Osprey <i>Pandion haliaetus</i>	19 Oct 2011	3	B
American Kestrel <i>Falco sparverius</i>	18 Oct 2011	4	B
Merlin <i>Falco columbarius</i>	29 Oct 2011	1	A
Caribbean Coot <i>Fulica caribaea</i>	19 Oct 2011	5	C
Common Gallinule <i>Gallinula galeata</i>	19 Oct 2011	9	D
American Oystercatcher <i>Haematopus palliatus</i>	19 Oct 2011	1	A
Black-necked Stilt <i>Himantopus mexicanus</i>	19 Oct 2011	11	E
Grey Plover <i>Pluvialis squatarola</i>	19 Oct 2011	4	C
Semipalmated Plover <i>Charadrius semipalmatus</i>	19 Oct 2011	4	C
Wilson's Plover <i>Charadrius wilsonia</i>	19 Oct 2011	1	A
Killdeer <i>Charadrius vociferus</i>	19 Oct 2011	8	D
Wilson's Snipe <i>Gallinago delicata</i>	28 Oct 2011	2	B
Short-billed Dowitcher <i>Limnodromus griseus</i>	29 Oct 2011	1	A
Marbled Godwit <i>Limosa fedoa</i>	29 Oct 2011	1	A
Whimbrel <i>Numenius phaeopus</i>	19 Oct 2011	1	A
Greater Yellowlegs <i>Tringa melanoleuca</i>	19 Oct 2011	6	C
Lesser Yellowlegs <i>Tringa flavipes</i>	19 Oct 2011	9	C
Solitary Sandpiper <i>Tringa solitaria</i>	20 Oct 2011	1	A
Spotted Sandpiper <i>Actitis macularius</i>	19 Oct 2011	10	D
Ruddy Turnstone <i>Arenaria interpres</i>	18 Oct 2011	4	C
Semipalmated Sandpiper <i>Calidris pusilla</i>	19 Oct 2011	8	D
Least Sandpiper <i>Calidris minutilla</i>	19 Oct 2011	7	D
White-rumped Sandpiper <i>Calidris fuscicollis</i>	19 Oct 2011	6	C
Pectoral Sandpiper <i>Calidris melanotos</i>	19 Oct 2011	5	C
Stilt Sandpiper <i>Calidris himantopus</i>	20 Oct 2011	3	D
Lesser Black-backed Gull <i>Larus fuscus</i>	19 Oct 2011	2	B
Common Tern <i>Sterna hirundo</i>	19 Oct 2011	3	C
Royal Tern <i>Thalasseus maximus</i>	18 Oct 2011	7	C
Laughing Gull <i>Leucophaeus atricilla</i>	19 Oct 2011	4	D
Cabot's Tern <i>Thalasseus acufflavivus</i>	19 Oct 2011	2	C
Eurasian Collared Dove <i>Streptopelia decaocto</i>	18 Oct 2011	2	C
Zenaida Dove <i>Zenaida aurita</i>	18 Oct 2011	9	C
White-winged Dove <i>Zenaida asiatica</i>	20 Oct 2011	4	C
Common Ground Dove <i>Columbina passerina</i>	18 Oct 2011	6	C
Rose-ringed Parakeet <i>Psittacula krameri</i>	20 Oct 2011	1	A
Yellow-billed Cuckoo <i>Coccyzus americanus</i>	20 Oct 2011	1	A
Green-throated Carib <i>Eulampis holosericeus</i>	21 Oct 2011	2	B
Antillean Crested Hummingbird <i>Orthorhyncus cristatus</i>	21 Oct 2011	2	B

Species	First sighting	Number of sightings	Number of birds
Belted Kingfisher <i>Megaceryle alcyon</i>	19 Oct 2011	7	C
Caribbean Elaenia <i>Elaenia martinica</i>	20 Oct 2011	2	B
Grey Kingbird <i>Tyrannus dominicensis</i>	18 Oct 2011	8	C
Cliff Swallow <i>Petrochelidon pyrrhonota</i>	21 Oct 2011	3	E
Barn Swallow <i>Hirundo rustica</i>	18 Oct 2011	9	E
Pearly-eyed Thrasher <i>Margarops fuscatus</i>	18 Oct 2011	2	B
House Sparrow <i>Passer domesticus</i>	19 Oct 2011	2	B
Northern Parula <i>Parula americana</i>	21 Oct 2011	1	A
Blackpoll Warbler <i>Dendroica striata</i>	20 Oct 2011	2	B
Prothonotary Warbler <i>Protonotaria citrea</i>	21 Oct 2011	1	A
Mangrove Warbler <i>Dendroica petechia</i>	20 Oct 2011	4	C
Carib Grackle <i>Quiscalus lugubris</i>	18 Oct 2011	10	D
Bananaquit <i>Coereba flaveola</i>	18 Oct 2011	13	D
Black-faced Grassquit <i>Tiaris bicolor</i>	19 Oct 2011	7	D
Lesser Antillean Bullfinch <i>Loxigilla noctis</i>	20 Oct 2011	3	C

Cinnamon Teal

A male was seen on 19 and 20 October in Etaing Chevrise. Since these observations constitute the first record of this species on Sint Maarten some record shots were made to document it. The possibility of a hybrid, however, could not be completely excluded.



20 October 2011: Cinnamon Teal, Etaing Chevrise. Photo: Hans Verdaat

Merlin

One individual was seen hunting on a mixed group of Cliff Swallows (150) and Barn Swallows (30) at Salines L'Esperance Airport on 29 October.

Caribbean Coot

Breeding birds or adults with chicks were seen at several small ponds and in the Salines. Hybrids Caribbean Coot x American Coot were photographed at Salines L'Esperance Airport. Two adults with 4 downy young were present at the small pond on the eastside of the road.



20 October 2011: Hybrid Caribbean Coot x American Coot, Salines L'Esperance Airport.

Photo: Hans Verdaat

Osprey

Three individuals were seen:

19 October: 1 roosting Etang aux Poissons

20 October: 1 flying Grand Etang

20 October: 1 flying Simpson Bay Lagoon

The subspecies of the individuals could not be identified.

Marbled Godwit

One individual was seen flying over the Great Salt Pond in Philipsburg on 28 October. Though this observation constitutes the first record of this species on Sint Maarten it could not be documented with pictures. The bird was identified by its light brown overall appearance, red-brown (cinnamon colour) underwing coverts, and a light patch on the inner upperwing contrasting with the darker outer wing.

Final remarks

The used vessel was not suited for dedicated seabird and cetacean surveys; the observation height was too low, and the ship rolled too much even with low swell. Ship speed during surveying was lower than the prescribed 10 knots; in theory leading to an over-estimation of the density of flying birds. Nevertheless, the gathered data fit in the seasonal pattern in observed seabird species and densities described for Guadeloupe, which shows a distinct dip from August-October (Levesque & Yésou, 2005). The lack of cetaceans records reflects the findings of the review of cetacean records in the EEZ of the Windward islands by Debrot et al (in press), who described only two records of cetaceans in October, both on the Saba bank.

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Justification

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The scientific quality of this report has been peer reviewed by a colleague scientist and the head of the department of IMARES, and two external reviewers.

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 Researcher

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Date: 20 April 2012

Approved: Jakob Asjes
 Department head

Signature:



Date: 20 April 2012