Waterbird Conservation for the Americas
Conservación de las Aves Acuáticas para las Américas

FINAL REPORT
WATERBIRDS IN SAINT KITS AND NEVIS

(PHOTO: KATE ORCHARD)

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1. General Introduction

The Federation of St. Kitts and Nevis is composed of two islands, located within the Tropics at 17.19°N of the Equator on a longitude of 62.45°W. The Federation is independent under a constitutional monarchy with a Westminster style parliament. The climate is moist in mountainous areas and drier in the lowlands. Annual temperatures average 26° C. Average rainfall is as low as 100 cm in low-lying areas and can reach over 380 cm per year at the highest peak. Much of the precipitation arrives during hurricane season in late summer and fall.

St. Kitts is 176 km² in area. The moist north end is composed of the dormant volcano Mt. Liamunga (1,156 m), which is forested at the upper elevations while the lower slopes are primarily sugar cane. Numerous ghauts flow down the mountainside. The northern coastline is primarily cliffs. The south east is composed of low hills and thorn woodland vegetation along a tapering peninsula used for grazing livestock and for tourism development. The southern coastline is characterized by sand or rock shores with six coastal saline ponds. The human population is approximately 30,000.

Nevis (93 km²) is an extinct volcano rising to an elevation of 985 m. Vegetation is similar to that of northern St. Kitts. There are many ghauts and one coastal wetland on Nevis. The human population is estimated at 10,000.

The herpetofauna is represented by two species of amphibian and eight species of terrestrial reptiles. Two *Anolis* and one ground lizard species are endemic to the islands. Native mammals are limited to seven species of bats. There are 926 known plant species, 45 of which are island or regional endemics.

2. Ornithological Importance

The avian fauna of both islands is composed of 62 recorded migrant species and 37 species which breed.

Little is known of Nevis' avifauna. One bird guide exists for Nevis, but it could not be purchased on the island.

St. Kitts has several large wetlands on the Southeast Peninsula (SP) which support a diverse waterbird population. Nesting Least Tern *Sterna antillarum*, Brown Pelicans *Pelecanus occidentalis*, Magnificent Frigatebirds *Fregata magnificens*, and Snowy Plover *Charadruis alexandrinus nivosus* can be found on the SP.

➢ Waterbirds

Booby Island (1 ha), a rocky, vegetated islet approximately 40 m high, harbors a small yet diverse seabird breeding population. The island is located about half way between St. Kitts and Nevis. It is the only recorded breeding location within the Federation for a number of species. In May 2004, the following species were recorded: Red-billed Tropicbird *Phaethon aethereus* (2 pairs), Laughing Gull Larus *atricilla* (125 pairs), Roseate Tern Sterna *dougallii* (6 pairs), Bridled Tern Sterna *anaethetus* (60 nests), Sooty Tern Sterna *fuscata* (225 nests), and Brown Noddy Anous *stolidus* (8 pairs).

There is one small pond on Nevis. Magnificent Frigatebirds and Laughing Gulls are reported by two individuals to nest in the Hurricane Hill-Newcastle area in unknown numbers. Least Terns are reported to breed at the north end of White Bay. No nesting of waterbirds was evident during a visit in May 2004.

The nine saltponds of St. Kitts' southeast peninsula range from mangroves to saltpans. The largest is Great Salt Pond at 1.6 km in diameter. The following waterbird accounts are for St. Kitts.

In 1985, 21 Snowy Plover nests were recorded at Little and Great Salt Ponds. However, none were seen in May 2004.

Fifty-six Brown Pelican nests and nine Magnificent Frigatebird nests were recorded at Nag's Head in 1985. In February 2004, both species were present although nesting could not be confirmed due to rough seas.

The island breeding population of Roseate Terns is estimated at 100-200 breeding pairs, based on observations in the mid 1990's. In July 1988, 12 Roseate Terns (including juveniles) were observed at White House Bay. In late May 2004, six pairs were recorded on Booby Island. None were seen at White House Bay but the entire headland was not surveyed.

A total of 40 Least Terns nests are estimated for the SP. A total of ten nests were found at Mosquito Bay Pond and the north end of Great Salt Pond while the ocean shoreline from Greatheeds Pond area to Barker's Point holds approximately 30 pairs.

Although the ponds of St. Kitts are consistently used by migrant waterbirds, there are no significant concentrations of migrants.

3. Protected Areas and Conservation Systems

The Brimstone Hill Fortress National Park on St. Kitts is a World Heritage Site. The Forestry Ordinance of 1904 protects areas above 300 meters, known as the Central Forest Reserve. This reserve is now part of the Organization of Eastern Caribbean States (OECS) Protected areas and Associated Livelihoods (OPAAL) Project. The Wild Birds Protection Ordinance of 1913 prohibited or regulated hunting of 27 species. The National Conservation and Environment Protection Act of 1987 enables further protection for approximately 90 avian species. There are no known officially protected areas in Nevis.

4. Conservation Initiatives

There is no current bird research on St. Kitts or Nevis. EPIC conducted a survey of the SP ponds and Booby Island in May 2004. "The Birds of St. Kitts" by Steadman *et. al*. was published in 1997, and provides data from their research on the island in the 1980s. No recent research has occurred on Nevis and the booklet "The Birds of Nevis" could not be obtained on the island.

5. International Conservation Agreements

St. Kitts & Nevis is party to the international Conventions on Biodiversity, Climate Change, Desertification, Endangered Species, Hazardous Wastes, Law of the Sea, Ozone Layer Protection, Ship Pollution, and Whaling.

6. Conservation Concerns

The SP appears to be viewed primarily for its tourism development potential. Hotels, golf courses, and concessions continue to be constructed in The Frigate Bay area. It seems likely that this development will expand further down the SP, where numerous sandy beaches can be developed for tourism. No protections exist for the ponds, as evidenced by the mangroves destroyed in the Frigate Bay area.

Grazing along pond shorelines is a serious concern for nesting birds. Cows, goats, and White-tailed deer roam freely throughout the SP, trampling Least Tern and Snowy Plover nesting areas. Invasive predators are a major concern as well and include vervet monkeys, rats, mice, cats, mongoose, and dogs.

The remaining upper elevations of forest on St. Kitts and Nevis appear to be protected, although invasive predators are a problem there as well.

7. Conservation Needs

There are no known national bird conservation activities. A search for the St. Kitts Bullfinch may yield evidence of this possibly extinct endemic. The SP ponds should be fenced to prohibit trampling of nests or livestock should be restricted to designated areas away from ponds. A bi-annual census is suggested in order to better estimate species populations and identify key breeding and overwintering areas.

8. Glossary

SP –Southeast Peninsula of St. Kitts, an arid area interspersed with salt ponds. There is one road, little infrastructure, and it is primarily used for grazing.

9. Locations

A. Ponds of the Southeast Peninsula

The Southeast Peninsula is composed of low hills, eight salt ponds, coastal cliffs, and beaches. It is approximately 15 kilometers long and a road runs its length. The peninsula widens towards the southeastern tip to approximately 4 kilometers wide, although the narrowest northern section is less than one kilometer wide. Tourism is concentrated in the northern section of the peninsula, which is dominated by resorts, a golf course, and restaurants. Similar developments are expected to expand southward. Ponds of importance to birds on the peninsula include Greatheeds Pond and beach, Half Moon, Friar's Bay, Great Salt, Major's Bay, Mosquito Bay, Little Salt, and Frigate Bay Ponds. The boundaries would be limited by an area thirty meters from the high water line of each pond.

Ornithological information Least Terns nest at three sites on the Southeast Peninsula. A survey in 2004 revealed that Mosquito Bay Pond has 20 Least Tern pairs, Great Salt Pond has 27 pairs, and Greatheeds Beach (which is just north of the peninsula) has 18 pairs.

Species	Season	Year	Min-Max
Brown Pelican *Pelecanus occidentalis*	breeding	1985	56 - 56
Roseate Tern *Sterna dougallii*	breeding	1990	100 - 200
Least Tern *Sterna antillarum*	breeding	2004	65 - 65

Protection status The area is not protected, although building is prohibited on steep slopes.

Conservation issues Grazing is a serious threat to nesting Least Terns. Colonies were marked by dense cattle tracks and it is likely nests are frequently trampled. Tourism development of the Southeast Peninsula is part of the long term plan for the area. Associated disturbance, pollution, and habitat alteration usually associated with such activities would have a detrimental effect on the breeding population. Current tourism development on most of the peninsula is limited to snack bars and restaurants on the relatively isolated beaches. It is unknown if hunting is a threat.

Figure 1. View of Southeast Peninsula looking south towards Great Salt Pond from White House Bay. http://www.discover-stkitts-nevis-beaches.com/

Figure 2. Great Salt Pond with Mt. Liamuiga to the north. © EPIC

B. Booby Island
Located approximately half-way between St. Kitts and Nevis, uninhabited Booby Island is a mix of dense, brushy vegetation and rocky outcroppings. The shoreline of this circular islet is composed of large rocks which almost immediately meet a steep hillside.

Ornithological information Booby Island is the only recorded breeding location within the Federation of St. Kitts and Nevis for a number of species. In May 2004, the following species were recorded: Red-billed Tropicbird Phaethon aethereus (2 pairs), Laughing Gull Larus atricilla (125 pairs), Roseate Tern Sterna dougallii (6 pairs), Bridled Tern Sterna anaethetus (60 nests), Sooty Tern Sterna fuscata (225 nests), and Brown Noddy Anous stolidus (8 pairs). No other avian surveys of the site are known.

Conservation issues Booby Island is unprotected and appears to be the property of the Federation. There is no easy boat access to the island; visitors must swim onto the rocks. Fisherfolk are reported to collect seabird eggs at this site, especially those of Laughing Gulls. No mammals were recorded during the one survey of the island.

Species	Season	Year	Min-Max
Laughing Gull *Larus atricilla*	resident	2004	125
Bridled Tern *Sterna anaethetus*	breeding	2004	60

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Table 1. Waterbirds occurrence, distribution, habitat and population estimates in Saint Kitts and Nevis.

Family **Species** **English name**	**Season** **Resident**	**Habitat**	**Population Estimates** (Individuals)	**Distribution**	**In-country trends**	**References**
ANATIDAE						
Dendrocygna bicolor (Fulvous Whistling-duck)	Passage	ponds		SP*		Collier and Brown (2006);
Dendrocygna arborea (West Indian Whistling-duck)	Passage	Ponds		SP*		Collier and Brown (2006);
Anas discors (Blue-winged Teal)	Non-breeding/winter	Ponds	Ab	SP*	Frequent	Collier and Brown (2006);
Anas bahamensis (White-cheeked Pintail)	Resident	Ponds		SP*		Collier and Brown (2006);
Anas crecca (Green-winged Teal)	Non-breeding/winter	Ponds	2 (actual count)	SP*	Rare	Collier and Brown (2006);
Aythya affinis (Lesser Scaup)	Non-breeding/winter		1 (actual count)	SP*	Rare	Collier and Brown (2006);
Oxyura jamaicensis (Ruddy Duck)	Non-breeding/winter	Ponds		SP*		Collier and Brown (2006);
PROCELLARIIDAE						
Puffinus lherminieri (Audubon's Shearwater)						Collier and Brown (2006);
PHAETHONTIDAE						
Phaethon lepturus (White-tailed Tropicbird)						Collier and Brown (2006);
Phaeton aethereus (Red-billed Tropicbird)	Breeding	Rocky areas	2 pairs (actual counts)	Booby Island		Collier and Brown (2006);
SULIDAE						
Sula dactylatra (Masked Booby)						Collier and Brown (2006);
Sula leucogaster (Brown Booby)						Collier and Brown (2006);
PELECANIDAE						
Pelecanus occidentalis	Resident/ Breeding		56 nests	SP*		Collier and

(Brown Pelican)						Brown (2006);
FREGATIDAE						
Fregata magnificens (Magnificent Frigatebird)	Resident/ Breeding		9 nests	SP*		Collier and Brown (2006);
ARDEIDAE						
Ardea herodias (Great Blue Heron)	Non-breeding/winter			SP*	Uncommon	Collier and Brown (2006);
Butorides virescens (Green Heron)				SP*		Collier and Brown (2006);
Bubulcus ibis (Cattle Egret)				SP*		Collier and Brown (2006);
Ardea alba (Great Egret)				SP*		Collier and Brown (2006);
Egretta thula (Snowy Egret)				SP*		Collier and Brown (2006);
Egretta caerulea (Little Blue Heron)				SP*		Collier and Brown (2006);
Nycticorax nycticorax (Black-crowned Night-heron)	Non-breeding/winter			SP*		Collier and Brown (2006);
Nyctanassa violacea (Yellow-crowned Night-heron)				SP*		Collier and Brown (2006);
THRESKIORNITHIDAE						
Plegadis falcinellus (Glossy Ibis)				SP*		Collier and Brown (2006);
PHOENICOPTERIDAE						
Phoenicopterus rubber (Greater Flamingo)				SP*		Collier and Brown (2006);
RALLIDAE						
Rallus longirostris (Clapper Rail)				SP*		Collier and Brown (2006);
Porzana carolina (Sora)	Non-breeding/winter	ponds	1 (actual count)	SP*	Rare	Collier and Brown (2006);
Gallinula chloropus (Common Moorhen)	Transient			SP*		Collier and Brown (2006);

Fulica americana (American Coot)	Non-breeding/winter	ponds	1 (actual count)	SP*		Collier and Brown (2006);
Fulica caribaea (Caribbean Coot)				SP*		Collier and Brown (2006);
CHARADRIIDAE						
Pluvialis squatarola (Black-bellied Plover)	Non-breeding/winter	ponds	Ab	SP*	Common	Collier and Brown (2006);
Pluvialis dominica (American Golden-Plover)	Non-breeding/winter			SP*		Collier and Brown (2006);
Charadrius collaris (Collared Plover)				SP*		Collier and Brown (2006);
Charadrius alexandrinus (Snowy Plover)	Resident/Breeding	ponds	21 nests	SP*		Collier and Brown (2006);
Charadrius wilsonia (Wilson's Plover)				SP*		Collier and Brown (2006);
Charadrius semipalmatus (Semipalmated Plover)	Non-breeding/winter	ponds	Aa	SP*	Common	Collier and Brown (2006);
Charadrius melodus (Piping Plover)	Non-breeding/winter	ponds	1 (actual count)	SP*	Rare	Collier and Brown (2006);
Charadrius vociferus (Killdeer)	Non-breeding/winter			SP*		Collier and Brown (2006);
HAEMATOPODIDAE						
Haematopus (American Oystercatcher)				SP*		Collier and Brown (2006);
RECURVIROSTRIDAE						
Himantopus mexicanus (Black-necked Stilt)				SP*		Collier and Brown (2006);
SCOLOPACIDAE						
Actitis macularius (Spotted Sandpiper)	Non-breeding/winter	ponds	5 (actual count)	SP*	Uncommon	Collier and Brown (2006);
Tringa melanoleuca (Greater Yellowlegs)	Non-breeding/winter		Aa	SP*	Frequent	Collier and Brown (2006);
Tringa flavipes (Lesser Yellowlegs)	Non-breeding/winter	ponds	Ac	SP*	Frequent	Collier and Brown (2006);
Tringa solitaria	Non-	ponds	1 actual count	SP*	Rare	Collier and

(Solitary Sandpiper)	breeding/winter					Brown (2006);
Tringa semipalmata (Willet)	Non-breeding/winter	ponds	1 actual count	SP*	Rare	Collier and Brown (2006);
Numenius phaeopus (Whimbrel)	Non-breeding/winter	ponds	8 actual counts	SP*	Uncommon	Collier and Brown (2006);
Limosa fedoa (Marbled Godwit)				SP*		Collier and Brown (2006);
Arenaria interpres (Ruddy Turnstone)	Non-breeding/winter	ponds	Aa	SP*	Common	Collier and Brown (2006);
Calidris canutus (Red Knot)	Non-breeding/winter	ponds	10 actual count	SP*	Rare	Collier and Brown (2006);
Calidris alba (Sanderling)	Non-breeding/winter		5 actual count	SP*	Uncommon	Collier and Brown (2006);
Calidris pusilla (Semipalmated Sandpiper)	Non-breeding/winter	ponds	Ad	SP*	Frequent	Collier and Brown (2006);
Calidris mauri (Western Sandpiper)	Non-breeding/winter	ponds	Ab	SP*	Uncommon	Collier and Brown (2006);
Calidris minutilla (Least Sandpiper)	Non-breeding/winter	ponds	Ab	SP*	Common	Collier and Brown (2006);
Calidris fuscicollis (White-rumped Sandpiper)	Non-breeding/winter	ponds	8 actual counts	SP*	Rare	Collier and Brown (2006);
Calidris melanotus (Pectoral Sandpiper)	Non-breeding/winter	ponds	Ab	SP*		Collier and Brown (2006);
Calidris alpine (Dunlin)	Non-breeding/winter			SP*		Collier and Brown (2006);
Calidris himantopus (Stilt Sandpiper)	Non-breeding/winter	ponds	Ab	SP*	Common	Collier and Brown (2006);
Limnodromus griseus (Short-billed Dowitcher)	Non-breeding/winter	ponds	Aa	SP*	Rare	Collier and Brown (2006);
Limnodromus scolopaceus (Long-billed Dowitcher)	Non-breeding/winter	ponds	1 (actual count)	SP*	Rare	Collier and Brown (2006);
Gallinago gallinago (Common Snipe)	Transient		1 (actual count)	SP*	Rare	Collier and Brown (2006);
LARIDAE						
Larus atricilla	Breeding	Rocky	125 pairs (actual	SP*, Booby		Collier and

(Laughing Gull)		areas, ponds	count)	Island		Brown (2006);
Larus delawarensis (Ring-billed Gull)	Passage	ponds		SP*	Rare	Collier and Brown (2006);
Larus argentatus (Herring Gull)	Non-breeding/winter	ponds	1 (actual count)	SP*	Rare	Collier and Brown (2006);
Hydroprogne caspia (Caspian Tern)				SP*		Collier and Brown (2006);
Thalasseus maximus						
Anous stolidus (Brown Noddy)	Breeding	Rocky areas	8 pairs (actual counts)	Booby Island		Collier and Brown (2006);
Onychoprion fuscatus (Sooty Tern)	Breeding	Rocky areas	225 nests (actual count)	Booby Island		Collier and Brown (2006);
Onychoprion anaethetus (Bridled Tern)	Breeding	Rocky areas	60 nest (actual counts)	Booby Island		Collier and Brown (2006);
Sternula antillarum (Least Tern)	Breeding		65 breeding pairs	SP*		Collier and Brown (2006);
Sterna dougalli (Roseate Tern)	Breeding	Ponds, rocky areas	100-200 breeding pairs	SP*, booby Island		Collier and Brown (2006);
Sterna hirundo (Common Tern)	Non-breeding/winter		2 (actual count)		rare	Collier and Brown (2006);
Sterna caspia (Caspian Tern)	Non-breeding/winter					Collier and Brown (2006);
Thalasseus maximus (Royal Tern)	Non-breeding					Collier and Brown (2006);

SP – Southeast Peninsula