

# SAINT LUCIA

## INTRODUCTION

by Gabriel L. Charles and Paul Butler

Saint Lucia, one of the Windward Islands in the Lesser Antilles, is a forest clad volcanic island of 616 km<sup>2</sup> in extent with mountains rising to 960m. The tropical climate is dominated by the almost constant influence of the northeast trade winds. There is a dry season from January to April, and a rainy season from May to August. The annual rainfall varies around the island from 1,500 to 3,500 mm.

St. Lucia became a fully independent member of the British Commonwealth in February 1979. The population of about 120,000 has an economy based on tourism and agricultural production, particularly bananas. There is some industry and an oil transshipment terminal.

The few wetland areas are mostly coastal mangrove swamps. Although of rather limited extent, the wetlands serve several vital functions including: (1) nursery sites for a variety of fish species which populate the reef areas and support a small fishing industry; (2) staging areas for Anatidae and shorebirds migrating through the eastern Caribbean; and (3) areas for environmental education and recreation.

The most important wetland sites are as follows:

- Bois d'Orange (freshwater swamp)
- Esperance (mangrove swamp and tidal mudflats)
- Marigot Bay (mangrove swamp and lagoon)
- Marquis (mangrove swamp and lagoon)
- Praslin (mangrove swamp and tidal mudflats)
- Savannes Bay (mangrove swamp and lagoon)
- St Urbain/Marigot/Boriel's Pond (mangrove swamp and lagoon)
- Trougascon (mangrove swamp and lagoon)
- Volet (mangrove swamp and tidal mudflats)

Resident waterfowl include several herons and egrets (Ardeidae) and rails (Rallidae); regular migrants and winter visitors include six species of Nearctic ducks and seventeen species of shorebirds.

### Institutional Base for Wetland Conservation and Research

The principal body concerned with conservation in St. Lucia is the Forestry Division of the Ministry of Agriculture in Castries. The wildlife conservation work of the Forestry Division involves an integration of three components: effective legislation; initiation of environmental education; and establishment of nature reserves and protected areas.

The St. Lucia Naturalists' Society is a non-governmental organization with a membership of about 120. It promotes wildlife conservation and in particular strives to increase conservation awareness amongst school children.

### Progress in Wetland Conservation and Research

The protection of the State's terrestrial wildlife falls under the broad umbrella of the Forestry Division's Wildlife Protection Ordinance. This is subdivided into "Absolutely Protected", "Partially Protected" and "Unprotected" schedules. Subsequent to the devastating hurricane of 1980, all species listed in the Partially Protected schedule were upgraded to Absolutely Protected and at present, the only species that may be shot are mongoose *Herpestes auro-punctatus*, rats, mice and Fer-de-lance *Trimeresurus atrox* (pest species). Knowledge of the Ordinance is widespread amongst the population, and to date there have been very few legal infringements. Most of these have involved the collection or possession of reptile species.

In its environmental education programme, the Forestry Division regularly holds film shows and publishes articles in the press. Visual aids such as billboards, posters and T-shirts have also featured in its work. The Division has published a booklet entitled the A-Z of St. Lucia's Wildlife, and this was distributed to the Ministry of Education. A second series on the A-Z of trees was published in the national newspaper. A monthly environmental broadsheet entitled "Bush Talk" is produced, and this examines a wide range of topics including national, cultural and historical conservation. "Bush Talk" is sent to schools islandwide and is simultaneously published in the newspaper. If funds can be located, it is hoped to publish "Bush Talk" in book form for permanent use by school children.

Within the Division's Forest Reserve, an area of approximately 650 ha has been set aside as a reserve to protect the St. Lucia Parrot *Amazona versicolor*, St. Lucia's national bird, as well as other forest wildlife. Two small islets lying off the southeast coast of St. Lucia, the Maria Islands, have been declared a Nature Reserve to protect the Maria Island Lizard and the Maria Island Snake, both species endemic to the 12 hectares which the islands comprise. An area of mangroves at Savannes Bay, on the southeast coast near Micoud, has been declared a Nature Reserve, but funds are lacking for its development. Other areas recommended for protection include Marigot Bay (mangroves), The Pitons (scenic interest), Bois d'Orange Swamp (freshwater swamp), and Dennery Knob, but official recognition of these and development funds have yet to be obtained. In line with this, efforts are being made to undertake baseline studies of mangrove swamps and other wetland habitats.

St. Lucia is actively involved in regional and international efforts, including the work of the Caribbean Conservation Association. St. Lucia is a signatory of the Convention on International Trade in Endangered Species (CITES), and as such is committed to the international conservation of threatened species. Conservation priorities on the island have recently been reviewed by Putney (1982).

Because of limited financial and manpower resources, research to date has concentrated on studies of endemic wildlife such as the St. Lucia Parrot, and very little work has been done on the wetlands or their wildlife. However, the importance of the coastal mangroves as nurseries for fisheries is now appreciated. While a considerable amount of research has been conducted in extensive mangrove areas elsewhere in the Caribbean, this work may not be directly applicable to the small patches occurring in St. Lucia and around many other islands in the Lesser Antilles, and research here is clearly a high priority.

#### Major Threats to Wetlands

Because of the shortage of land and the intense human population pressure, most of the wetlands of St. Lucia are seriously threatened. The one freshwater swamp is threatened with drainage, while the mangrove areas are being cut down for timber, destroyed for housing, hotel and marina development, polluted with domestic waste, or used as rubbish dumps.

## WETLANDS

Site descriptions taken from a report entitled "Conservation of Wetlands and Wildfowl in Saint Lucia", prepared by Gabriel L. Charles and Paul Butler of the Forestry Division of the Ministry of Agriculture. (For map, see Dominica.)

### Bois d'Orange Swamp (1)

**Location:** 14°03'N, 60°58'W; 6 km north of Castries.

**Area:** 12-16 ha.

**Altitude:** 0-2m.

**Province and type:** 8.41.13; 13.

**Site description:** A small freshwater swamp prone to periodic flooding during the rainy season, when small lakes and ponds appear. The only significant freshwater swamp in Saint Lucia.

**Principal vegetation:** Rushes and sedges with scattered trees; the wetland is surrounded by dry wooded hills.

**Land tenure:** Privately owned (three owners).

**Protection:** None.

**Land use:** Cattle grazing on one third of the area in the dry season; several small farms, a quarry and a hotel nearby.

**Waterfowl:** An important area during the rainy season for a variety of migratory waterfowl. Several species of Ardeidae are resident, and *Gallinula chloropus* breeds.

**Other fauna:** No information.

**Threats:** The swamp is gradually being drained to provide land for housing. Several drainage ditches have been dug, and the water level has dropped, resulting in a spread of grasses and shrubs. The small river feeding the swamp is badly polluted with domestic sewage and rubbish.

**Research and conservation:** The Forestry Division has recommended that the area be purchased and managed as an Educational Nature Reserve, with raised walkways, observation hides, and facilities for interpretation and interaction between environment, teacher and student. No funds are however as yet available.

**References:** Forestry Division (1984).

**Source:** Gabriel L. Charles and Paul Butler.

**Criteria for inclusion:** 2b & 3a.

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### Marigot Bay (2)

**Location:** 13°59'N, 61°01'W; on the west coast 7 km south of Castries.

**Area:** c.100 ha.

**Altitude:** 0m.

**Province and type:** 8.41.13; 01, 05 & 08.

**Site description:** A shallow sea bay with fringing mangrove swamps and sandy beaches.

**Principal vegetation:** Mangrove swamps with *Rhizophora mangle* and *Avicennia* sp. Scrub and secondary forest on adjacent hillsides.

**Land tenure:** The mangroves are state owned; the adjacent coast is privately owned.

**Protection:** None.

**Land use:** Tourist recreation, mainly water sports. One side of the bay has been divided up for expensive housing development, and there is a small hotel on the other side.

**Waterfowl:** Particularly important for resident Ardeidae and migratory shorebirds.

**Other fauna:** The Hawksbill Turtle *Eretmochelys imbricata* may breed on the beaches.

**Threats:** The mangrove is under threat from hotel development and pollution from the large number of private yachts which anchor in the bay. The bay is gradually silting up as a result of soil erosion on the surrounding hillsides.

**Research and conservation:** The bay is recognized as an area of outstanding scenic beauty, and has tremendous potential for tourism. The Forestry Division has drawn up a management plan for the development of a small nature reserve complete with interpretive facilities and guided walks. One of the landowners in the area has offered an initial plot of land free to the

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Government to form the basis for a nature reserve. The mangroves lie within the Government's own "Queen's Chain", and could easily be included in any reserve established. Additional lands may be donated to the Government at a later date.

References: Putney (1982); Forestry Division (1984).

Source: Gabriel L. Charles and Paul Butler.

Criteria for inclusion: 3a.

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**Savannes Bay and Boriel's Pond (3)**

**Location:** 13°46'N, 60°55'W; on the southeast coast 5 km north of Vieux Fort.

**Area:** c.200 ha.

**Altitude:** 0m.

**Province and type:** 8.41.13; 01, 06, 07 & 08.

**Site description:** A shallow sea bay with coral reefs, sea-grass beds and extensive mangrove swamps; and a nearby shallow saline lagoon with surrounding mudflats.

**Principal vegetation:** Mangrove swamps, mainly *Rhizophora mangle*; and sea-grass beds.

**Land tenure:** Partly state owned, and partly privately owned.

**Protection:** The area owned by the State has been vested in the Saint Lucia National Trust, which has drawn up proposals for the conservation of the area. The remainder is unprotected.

**Land use:** Tourist recreation and some subsistence fishing.

**Waterfowl:** An important area for resident Ardeidae and migratory waterfowl. Boriel's Pond is particularly important for migratory Anatidae and shorebirds.

**Other fauna:** The bay is an important nursery ground for large numbers of commercially important crustaceans and fishes.

**Threats:** None at present.

**Research and conservation:** A number of specific proposals for the conservation of the area have been drawn up and are listed in the interim report of the South-East Coast Management Plan prepared by ECNAMP and an *ad hoc* Committee including the Forestry Division. The proposals revolve around maintaining the area in its pristine condition, and allowing only traditional forms of subsistence fishing.

References: Putney (1982); Forestry Division (1984).

Source: Gabriel L. Charles and Paul Butler.

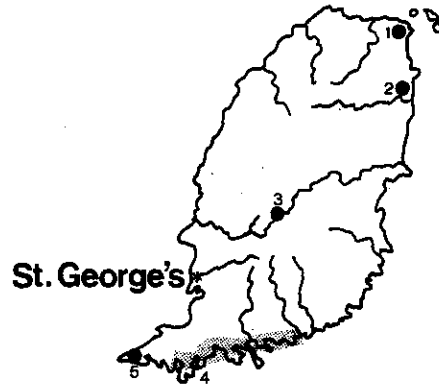
Criteria for inclusion: 2c & 3a.

### DOMINICA



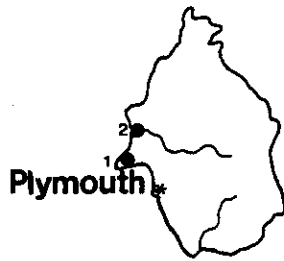
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### GRENADA



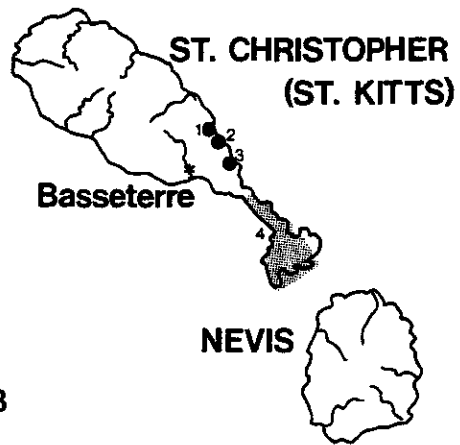
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