St Lucia is in the Windward Islands of the Lesser Antilles and lies between Martinique (to France), 28 km to the north, and St Vincent, 31 km to the south. It is 45 km long (north to south) and 21 km at its widest. St Lucia is a mountainous, volcanic island with a main axial ridge that stretches from La Sorciere in the north to Saltibus in the south. Mount Gimie is the island’s tallest mountain. Two spectacular pitons (volcanic plugs) rise from the sea in the south-west of the island—Gros Piton (798 m) and Petit Piton (743 m). The Pitons are a Caribbean landmark and are designated a World Heritage Site due to their unique beauty and geology. The island’s forested mountainous and hilly interior is incised by steep valleys resulting from the numerous streams that emanate in this rugged terrain although there are also some broad, fertile valleys. St Lucia’s tropical climate has two seasons: a dry season from December to May, and a wet season from June to November, although there appears to be increasing variance from this norm. Rainfall is highest in the wet, mountainous interior and lowest in the dry coastal zone resulting in wet tropical forest (primary and secondary) cloaking the main ridge with scrub forest and dry woodland (mostly now degraded) along the coast. A small area of elfin woodland is found at the top of Mount Gimie. Land use can be classified as forest (c.35%), agriculture (c.29%, and primarily permanent crops such as banana), residential, commercial and industrial.

Conservation
Government legislation for biodiversity conservation in St Lucia includes the 1980 Wildlife Protection Act (which provides for the protection of wildlife and the establishment of wildlife reserves), the 1984 Fisheries Act (which provides for the creation of marine reserves), and the 1983 Forest, Soil and Water Conservation Act (which contains provisions governing the declaration of forest reserves and protected forests on private land).

Almost 35% of St Lucia is still under some form of forest cover. Over a third of this (c.7,690 ha) is protected within the Government Forest Reserve IBA (LC002). The remaining forest is mostly privately owned. There is no protection afforded the dry coastal forest. The St Lucia National Trust (SLNT)—a quasi-governmental organisation under the 1975 National Trust Act—has management authority for some offshore islets, and a few parks and protected areas amounting to c.255 ha. The St Lucia iguana Iguana iguana. St Lucia whiptail Cnemidophorus vanzoi and White-breasted Thrasher Ramphocinclus brachyurus projects—lead by Durrell Wildlife
Leucopeza semperi (Critically Endangered) ground-dwelling Semper’s Warbler has been identified as a cause for the probable extinction of the alien invaders has not been quantified although the mongoose Herpestes auropunctatus, rats Rattus spp., pigs Sus scrofa, and Giant African snail Achatina sp. The actual impact of these alien invasives has not been quantified although the mongoose has been identified as a cause for the probable extinction of the (Critically Endangered) ground-dwelling Semper’s Warbler Leucopeza semperi. Hurricanes are an ever-present threat: the last one to hit the island was Hurricane Allen in 1980 which damaged or destroyed over 80% of the island’s forest. The increasing destruction, degradation and fragmentation of habitats is significantly reducing their resilience to the impacts of stochastic events such as hurricanes, and also the forecasted effects of global climate change.

### Birds

Over 160 species of bird have been recorded from St Lucia, 97 of which breed. The island is internationally important for its resident populations of six globally threatened bird species and also its restricted-range birds. The threat category and estimated national population sizes of the globally threatened birds are listed in Table 1. Semper’s Warbler Leucopeza semperi is considered Critically Endangered but is only

#### Table 1. Key bird species at Important Bird Areas in St Lucia.

<table>
<thead>
<tr>
<th>Key bird species</th>
<th>Criteria</th>
<th>National population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masked Duck Anomus dominicus</td>
<td>SC</td>
<td>&lt;50</td>
</tr>
<tr>
<td>Red-billed Tropicbird Pharomathus aethereus</td>
<td>SC</td>
<td>50-249 &lt;50 &lt;50</td>
</tr>
<tr>
<td>Royal Tern Sterna maxima</td>
<td>SC</td>
<td>50-249 &lt;50 &lt;50 &lt;50</td>
</tr>
<tr>
<td>Roseate Tern Sterna dougalli</td>
<td>SC</td>
<td>50-249 50-100</td>
</tr>
<tr>
<td>Bridled Tern Sterna anaethesetas</td>
<td>SC</td>
<td>250-999 250-500</td>
</tr>
<tr>
<td>Sooty Tern Sterna fuscata</td>
<td>SC</td>
<td>20,000-49,999 28,000-49,999</td>
</tr>
<tr>
<td>Bridled Quail-dove Geotrygon mystacea</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>St Lucia Amazon Amazona versicolor</td>
<td>VU</td>
<td>800-1,200 800-1,000</td>
</tr>
<tr>
<td>Lesser Antillean Swift Chaetura martina</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Purple-throated Carib Eulamps jugularis</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Green-throated Carib Eulamps holosericeus</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Antillean Crested Hummingbird Orthoprocne cristata</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Caribbean Elaenia Elaenia martinica</td>
<td>SC</td>
<td>250-999 1,000-2,499 &lt;50 &lt;50</td>
</tr>
<tr>
<td>Lesser Antillean Power Contopus latirostris</td>
<td>SC</td>
<td>250-999 2,500-9,999 &lt;50 &lt;50</td>
</tr>
<tr>
<td>Lesser Antillean Flycatcher Myiarchus olbi</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>White-breasted Thrasher Ramphocinclus brachyurus</td>
<td>EN</td>
<td>1,200-1,400 100 1,010-1,130</td>
</tr>
<tr>
<td>Scaly-breasted Thrasher Mergus fuscus</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Pearly-eyed Thrasher Mergus fasciatus</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Brown Trembler Cinclores ruficapilla</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Grey Trembler Cinclores gutturalis</td>
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<td>✓ ✓ ✓ ✓</td>
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<tr>
<td>Rufous-throated Solitaire Myadestes genilabris</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Forest Thrush Caththramma rhimeni</td>
<td>VU</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>St Lucia Warbler Dendroica delicata</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Semper’s Warbler Leucopeza semperi</td>
<td>CR</td>
<td>&lt;50 &lt;50 &lt;50 &lt;50</td>
</tr>
<tr>
<td>St Lucia Oriole Icterus luidahbis</td>
<td>NT</td>
<td>2,500-9,999 100-300 2,500-9,999 100 100-200</td>
</tr>
<tr>
<td>Lesser Antillean Bullfinch Loxigilla nocis</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>St Lucia Black Finch Melanoptila richardsoni</td>
<td>EN</td>
<td>2,500-9,999 500 2,500-9,999 200 ✓ ✓ ✓</td>
</tr>
<tr>
<td>Antillean Euphonia Euphonia musica</td>
<td>EN</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
<tr>
<td>Lesser Antillean Saltator Saltator alicula</td>
<td>SC</td>
<td>✓ ✓ ✓ ✓</td>
</tr>
</tbody>
</table>

All population figures = numbers of individuals.

Threatened birds: Critically Endangered ■, Endangered ●, Vulnerable ▲, Near Threatened ▲▲, Restricted-range birds ▲▲▲, Congregatory birds ▲▲▲▲.
possibly still extant. The Endangered White-breasted Thrasher *Ramphocinclus brachyurus* is better known, being confined to the dry forests on the east coast, although its habitat is currently unprotected and is a major conservation priority for the island. The Near Threatened, migratory Buff-breasted Sandpiper *Tryngites subruficollis* has also been recorded from St Lucia on three occasions but has not been used to identify IBAs. Twenty-three (23) (of the 38) Lesser Antilles EBA restricted-range birds occur in this country. Five of these are endemic to the island, namely St Lucia Amazon *A. versicolor*, St Lucia Warbler *Dendroica delicata*, *L. semperi*, St Lucia Black Finch *Melanospiza richardsoni* and St Lucia Oriole *Icterus laudabilis*. A number of endemic subspecies of birds are present on the island, the most threatened being the Rufous Nightjar *Caprimulgus rufus otiosus* which is local and uncommon in the unprotected dry forests of the east coast. The Lesser Antillean Flycatcher *Myiarchus oberi santaeluciae* is also uncommon, but is relatively secure within the well protected wet forests.

**IMPORTANT BIRD AREAS**

St Lucia’s five IBAs—the island’s international site priorities for bird conservation—cover 15,505 ha or 25% of the island’s land area. The critical habitat components of three of these IBAs are formally designated as protected areas. The remaining two IBAs, North-east coast (LC001) and Mandele Dry Forest (LC004) are unprotected in terms of their critical forest habitat, but both enjoy some protection of their marine and wetland areas. Approximately 70% of the land area of St Lucia’s IBAs is formally protected, and the Government...
The IBAs have been identified on the basis of 29 key bird species that variously trigger the IBA criteria. The majority of these birds occur in two or more of the IBAs. However, some of the moist forest dependent species are found only in three of these forests. Apart from Melanospiza richardsoni and Melanospiza versicolor, some of the moist forest dependent species are found only in the Forest Reserve IBA (LC002) protects 30% of St Lucia’s remaining forest.

The IBAs have been identified on the basis of 29 key bird species that variously trigger the IBA criteria. The majority of these birds occur in two or more of the IBAs. However, some of the moist forest dependent species are found only in the Government Forest Reserve IBA. This protected IBA supports the entire breeding population of St Lucia Amazon Amazona versicolor, and a large percentage of the St Lucia Black Finch Melanospiza richardsoni population. It also protects all but one of the restricted-range birds that occur on St Lucia. Of greatest concern is the White-breasted Thrasher Ramphocinclus brachyurus. It occurs in two IBAs (North-east coast and Mandele Dry Forest, which encompass c.97.5% of the species’ St Lucia population), but the bird’s dry forest habitat in these IBAs is totally unprotected.

There is an urgent need for the formal protection of critical dry forest habitat (probably through purchasing habitat presently in private hands) within the two IBAs that encompass the range of R. brachyurus. Such protection would need to be an integral part of a sensitively designed strategic development plan for the east coast dry forests—a plan that takes into account the needs of this region’s unique biodiversity. Little is known of the populations of St Lucia’s globally threatened or restricted-range birds (apart from A. versicolor and R. brachyurus). Establishing the population status and subsequent monitoring of these priority species is a critical need, and could perhaps be done as an extension to the ongoing St Lucia Amazon and White-breasted Thrasher projects. An assessment of the impacts of invasive alien species (including Shiny Cowbird Molothrus bonariensis, a brood-parasite of the St Lucia Oriole Icterus laudabilis) would also provide important inputs to site management strategies. State, pressure and response variables at each IBA should be monitored annually to provide an objective status assessment and highlight management interventions that might be required to maintain these internationally important biodiversity sites.

**KEY REFERENCES**


**ACKNOWLEDGEMENTS**

The authors would like to thank Lyndon John, Michael Bobb and Michael Andrew (Forestry Department, Ministry of Agriculture), and Matthew Morton (Durrell Wildlife Conservation Trust) for their help in drafting this chapter.
**LC001 North-east coast**

**Site description**
The North-east coast IBA stretches from the Dennery Knob westward to the Marquis Estate just outside the periphery of the Government Forest Reserve IBA (LC002). It then runs north-east, adjacent to the Northern Range extension of the Government Forest Reserve IBA to Grand Anse. This IBA covers a considerable portion of St Lucia’s tropical dry forest life zone and is characterised by low canopy, scrub forest. The IBA comprises a mix of agriculture, pastureland and undeveloped secondary forest cover.

**Birds**
This IBA is important for the Endangered White-breasted Thrasher Ramphocinclus brachyurus (holding c.7.5% of the St Lucia population), the Endangered St Lucia Black Finch Melanospiza richardsoni, and 15 (of the 23) Lesser Antilles EBA restricted-range birds. It is the last stronghold for the endemic subspecies of Rufous Nightjar Caprimulgus rufus otiosus, and supports populations of the Lesser Antillean Flycatcher Myiarchus obri santaeluciae and House Wren Troglodytes aedon martinicensis. A pond at Grande Anse is the only known location where Masked Duck Nomonyx dominicus breeds on the island. Red-billed Tropicbird Phaethon aetheres may nest on the sea cliffs.

**Other biodiversity**
The endemic St Lucia boa constrictor Constrictor ophrias, St Lucia viper Bothrops caribbaeus, and St Lucia race of the green iguana Iguana iguana occur. The Grand Anse beach is currently the most important nesting ground for three globally threatened turtle species. The adjacent Louvet beach is important for nesting iguanas. The St Lucia muskrat Megalonyx luciae—thought to be extinct—may actually be present in this area.

**Conservation**
Five different marine reserves cover the coastal zone of this IBA but the terrestrial areas, which are mostly privately owned (e.g. Louvet and Grand Anse estates), are unprotected. The large estates are potential targets for development (following the trend set for east-coast tourist development by the Praslin Bay resort in the Mandele Dry Forest IBA). Deforestation for agriculture threatens much of this IBA, and leads to fragmentation which in turn increases the impact of the numerous invasive alien predators. Latané palm Coccothrinax barbadensis and a number of other plant species are over-exploited in the IBA. Forest Department and Durrell Wildlife Conservation Trust are working on *R. brachyurus* and the iguana in this IBA.

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**LC002 Government Forest Reserve**

**Site description**
The Government Forest Reserve IBA straddles the central, volcanic mountain massif running from the north to the south of the island. The reserve, which supports high canopy forest throughout, is divided into management units: Northern Range (the Morne La Sorciere forest in the north, adjacent to the communities of Desbarras, Des Chassin, Foresterie and Marc), Dennery Range (east/central and adjacent to the communities Aux-Leon, Denniere Riviere, Grand Riviere and Dennery), Millet Range (west/central and bounded by the communities Millet, Ravine Poisson, Anse-la-Raye and Cannaries), Soufriere Range (south/western and adjacent to Fond St Jacques and Saltibus) and Quillesse Range (adjacent to the communities Desruisseaux and Tirocher in the south-west). This IBA abuts the North-east coast (LC001) and Mandele (LC004) IBAs.

**Birds**
This IBA is important for four globally threatened birds and 22 (of the 23) Lesser Antilles EBA restricted-range birds. It embraces the breeding range of the Vulnerable St Lucia Amazon Amazona versicolor (with c.800–1,000 birds in the IBA), and a large population of the Endangered St Lucia Black Finch Melanospiza richardsoni. The Vulnerable Forest Thrush Leucopeza semperi is very rarely reported in St Lucia, but one at Morne La Sorciere in August 2007 (with subsequent records) confirms its continued presence in this IBA. The last confirmed sighting of the Critically Endangered Semper’s Warbler Leucopeza semperi was in 1972—if it survives it will be within this IBA.

**Other biodiversity**
The endemic St Lucia boa Constrictor ophrias, St Lucia viper Bothrops caribbaeus, and St Lucia race of the pygmy gecko Sphaerodactylus microlepis occur in this IBA, as do at least nine endemic plants.

**Conservation**
The Government Forest Reserve IBA is a state-owned protected area that covers over a third of the island’s remaining forest. There are no human settlements within the IBA although the reserve is used (to a limited degree) for tourism and recreational activities. Invasive alien (mammalian) predators are present in the reserve and presumably impact the native fauna. The forest was significantly damaged by Hurricane Allen in 1980. Research and conservation actions by Forestry Department and Durrell Wildlife Conservation Trust have focused on *A. versicolor* since the 1970s.
Site description
The Pitons IBA comprises two steep, cone-shaped mountains rising abruptly side by side from the sea on the south-west coast of St Lucia near the coastal town of Soufriere. The Pitons are a spectacular area of iconic coastal scenery—familiar throughout the region. Gros Piton (3 km wide at its base, and 777 m high) and Petit Piton (1 km wide and 730 m high) are cores of two lava-dome volcanoes, and are joined by the Piton Mitan ridge. The Pitons support a productive forest ecosystem and an offshore fringing reef.

Birds
This IBA is important for its population of the Endangered St Lucia Black Finch Melanospiza richardsoni, and for the 14 (of the 23) Lesser Antilles EBA restricted-range birds that occur (including the Near Threatened St Lucia Oriole Icterus laudabilis). The endemic subspecies of Lesser Antillean Flycatcher Myiarchus oberi santaeluciae and House Wren Troglodytes aedon martineicensis also occur. A small but regionally important population of Royal Tern Sterna maxima breeds.

Other biodiversity
The endemic St Lucia anole Anolis luciae, St Lucia pygmy gecko Sphaerodactylus microlepis, St Lucia boa Constrictor orophias, and St Lucia viper (or fer-de-lance) Bothrops caribbaeus occur. The Pitons are floristically diverse with many endemic plants represented.

Conservation
This IBA is protected as the Pitons Management Area (PMA) which has also been designated a World Heritage Site. The Soufriere Marine Management Area protects part of the marine system. The lands are crown (state) owned. The communities of Fond Jens Libre and Chateau Belair are within the PMA, as are two resorts—Ladera and the Jalousie Hilton. The area is threatened by development pressures from tourism and dry-season fires (originating from farmers or campers). Invasive alien (mammalian) predators are present and presumably impacting the native fauna. The threat of hurricanes is ever present and that of volcanic eruption—though remote—cannot be ruled out.

Site description
The Mandele Dry Forest IBA is located on and inland from the east coast of St Lucia, bounded by Ravine Pascal to the north, Ravine Bourge to the south and on the north-west by the Dennery Range extension (the Dennery Water Works Forest Reserve) of the Government Forest Reserve IBA (LC002). The IBA consists of flat coastal areas and foothills rising towards the Dennery Range, and includes the large Praslin Bay estate (currently being developed), Praslin Island and Frigate Islands.

Birds
This IBA is important for three globally threatened bird species. It is the centre of abundance for the Endangered White-breasted Thrasher Ramphocinclus brachyurus, holding over 90% of the St Lucia population (c.1,200 individuals). The Endangered St Lucia Black Finch Melanospiza richardsoni is also present, as are seasonal foraging flocks of the Vulnerable St Lucia Amazon Amazona versicolor, and a total of 15 (of the 23) Lesser Antilles EBA restricted-range birds. The endemic subspecies of Lesser Antillean Flycatcher Myiarchus oberi s. s. orophias is present. A small population of Royal Tern Sterna maxima is regionally important.

Other biodiversity
The Vulnerable St Lucia whiptail Cnemidophorus vanzoi was successfully translocated (in 1997) to Praslin Island by the Forestry Department and Durrell Wildlife Conservation Trust. The endemic St Lucia boa Constrictor orophias and high densities of St Lucia viper Bothrops caribbaeus occur.

Conservation
The Mandale Dry Forest IBA is a mix of private and crown (state) ownership, but there is no protection afforded the important dry forest and shrubland habitats. Frigate Islands Nature Reserve and Praslin Mangroves Marine Reserve cover some coastal and marine areas. Provision for a nature reserve (for R. brachyurus) is part of the development plan for the Praslin Bay hotel and resort complex which will however result in significant loss of critical thrasher habitat. Crown lands around Bordelais may have the potential for future conservation management. Land along the Praslin River is under cultivation and indiscriminate harvesting of Latané palm Coccolithus barbatus for broom handles is slowly depleting the dry forest vegetation within the IBA. Invasive alien (mammalian) predators are present and presumably impacting the native fauna. Forestry Department and Durrell Wildlife Conservation Trust are undertaking research and conservation actions for R. brachyurus in this IBA.
Site description
Pointe Sable National Park IBA is located along the south and south-east coasts of St Lucia. Terrestrially it comprises a narrow coastal strip and the Moule-à-Chique peninsula. The terrain is low to undulating, the highest point being at Moule-à-Chique—the southernmost tip of the island. The coastal zone is proportionately larger, consisting of long sandy beaches, the Savannes Bay and Mankôte Mangroves, Scorpion Island, the Maria Islands, and several coral reefs and near-shore islands. St Lucia’s largest wetlands are within this IBA. The area also includes a number of historical buildings including old fortresses, a lighthouse and a World War II radar tracking station.

Birds
This IBA is important for its breeding seabirds. Over 20,000 Sooty Terns *Sterna fuscata* breed, as do 250–500 Bridled Terns *S. anaethetus*, Roseate Tern *S. dougallii*, Royal Tern *S. maxima* and Red-billed Tropicbird *Phaethon aethereus* breed in regionally important numbers. The Endangered St Lucia Black Finch *Melanospiza richardsoni* occurs in the forested areas although the population is unknown. The mangroves and wetlands (especially the swamp at the northern end of the IBA) are important for waterbirds and Neotropical migrants.

Other biodiversity
This IBA supports an important herpetofauna including five endemics, two of which are globally threatened. The Endangered St Lucia racer *Liophis ornatus* and Vulnerable St Lucia whiptail *Cnemidophorus vanzoi* are endemic to the Maria Islands (Maria Major is rat- and mongoose-free).

Conservation
Pointe Sable National Park is a mix of private and crown (state) lands that include a number of reserves (e.g. Mankôte Mangrove and Savannes Bay marine reserves/ Ramsar sites). The Maria Islands nature reserve is managed by the St Lucia National Trust. The marine reserves are crown lands—managed by the government in collaboration with non-governmental groups. The IBA is being impacted by rapid commercial development; unauthorised harvesting of mangrove for charcoal; upland deforestation (causing siltation of the near-shore environment); mining and quarrying discharges; inappropriate disposal of household waste; and alien invasive predators. Pressure from coastal tourist developments in an area of high unemployment and poverty presents a huge challenge in managing the area for sustainable conservation. Forestry Department and Durrell Wildlife Conservation Trust are working on the St Lucia whiptail in this IBA.