INTRODUCTION

Martinique is a mountainous, volcanic island surrounded by numerous small islets. It is one of smallest département d'outre-mer (DOM, overseas department) of France (and an outermost region of the European Union) and has been divided into four administrative regions, which in turn have been subdivided into 45 cantons and 34 communes. Martinique is one of the Windward Islands in the southern Lesser Antilles, c.40 km south of Dominica and 28 km north of St Lucia. The north of the island is very mountainous, dominated by the Pitons du Carbet (1,207 m) and Montagne Pelée (1,397 m), an active (and closely monitored) volcano. Across the rest of the island, the relief primarily comprises hills (called ‘mornes’), the tallest of which reach 505 m (Montagne du Vauclin) and 478 m (Morne Larcher) in the Diamant commune. There is just one flat area—the plain of Le Lamentin in west-central Martinique—amongst the hills.

Martinique’s climate is tropical (26°C yearly average) and humid (80% humidity in March/April and 87% in October/November). The mountainous massifs of the north have a cooler climate and more rain than the coasts. They form a barrier to the “Alizé” (the trade winds), causing clouds to build up resulting in increased rainfall on the eastern slopes. Average annual rainfall in these mountains is 5,000 mm, with a maximum of 10,000 mm on Montagne Pelée. The south of Martinique, with its low hills, receives 1,200 mm of rainfall a year. With these differences in rainfall and topography, a wide diversity of habitats cover the island, ranging from xerophytic shrublands and dry forest, to wet tropical forest, high altitude grasslands and savannas, and mangroves.

■■■■■

Conservation

A considerable portion of Martinique is protected and many sites benefit from several categories of protection. Presqu’île de la Caravelle (IBA MQ004) and Îlets de Sainte Anne (IBA MQ010) are protected under the designation of Réserve Naturelle (national nature reserve), covering 527 ha. Thirteen sites (totalling 105 ha) are designated under the category of Arrêté de Protection de Biotope (APB, habitat protection bylaw) which forbids activities including climbing, camping, fires, introduction of animals, undertaking excavations, and flying over the area below a 300 m ceiling. Three of these APB sites are considered IBAs, namely Pointe du Pain de Sucre (MQ003), Rocher du Diamant (MQ008) and L’Îlet Boiseau.
Pitons du Carbet IBA in north-central Martinique is the most important montane forest area on the island. (PHOTO: SEPANMAR)
There are no government or university-based avian research programmes active on Martinique. However, NGO naturalist associations such as SEPANMAR, Association Ornithologique de Martinique (AOMA) and Association Le Carouge are carrying out species monitoring for some birds.

Other than volcanic eruptions (the eruption of 1902 was responsible for the extinction of an endemic rodent Megalomys demarestii) and hurricanes, the main threats to biodiversity on Martinique are directly linked to human activities including urban encroachment, agriculture (agricultural land covers 30% of the island), pesticide use, harvesting/gathering, and alien invasive species. Rats (both Rattus norvegicus and R. rattus), mongoose Herpestes auropunctatus and domestic cats Felix catus affect the island’s seabird colonies. In addition, the Shiny Cowbird Molothrus bonariensis, which has arrived through natural range expansion, is a nest-parasite of the Vulnerable Martinique Oriole Icterus bonana. Poaching is an increasing threat on the island, and numerous protected species (snipe, herons/egrets, pelicans, terns etc.) are regularly shot. Regulated hunting of “game” birds (of which there are 32 species) is permitted during a seven-month season. However, adherence to the season or to the listed birds is generally poor, and there is no monitoring of the numbers of birds (or species) shot, or of the population status of the listed game birds.

**Birds**

Of Martinique’s 180 recorded bird species, about 74 breed (there are c.10 species whose breeding status remains to be confirmed), 21 are exotics introduced by man (one of which—Orange-winged Parrot Amazona amazonica—was a deliberate introduction), or have naturally colonised the island (Cattle Egret Bubulcus ibis, Eared Dove Zenaida auriculata, Bare-eyed Thrush Turdus madagascariensis, and Shiny Cowbird Molothrus bonariensis), and 13 are summer migrants (of which 10 are seabirds). There are 19 restricted-range birds (see Table 1) of the 38 occurring in the Lesser Antilles Endemic Bird Area (EBA), including the Endangered White-breasted Thrasher Ramphocinclus brachyurus, and the only extant island endemic, the Vulnerable Martinique Oriole Icterus bonana.

The Blue-headed Hummingbird Cyanophaia bicolor is restricted to Martinique and neighbouring Dominica, while the Grey Trembler Cinclodera gutturalis and R. brachyurus are shared with St Lucia. The other restricted-range species on Martinique are found across a range of habitats, and occur in many parts of the island. A subspecies of Ringed Kingfisher Megaceryle torquata stictipennis is endemic to Martinique, Guadeloupe and Dominica, but is highly threatened and sightings on Martinique are becoming rare. Two Martinique endemic birds are now extinct, namely Martinique Amazon Amazona martinicana and Lesser Antillean Macaw Ara guadeloupensis, while three more widespread birds (Caribbean Flamingo Phoenicopterus ruber, Burrowing Owl Athene cunicularia, House Wren Troglodytes aedon) have disappeared from Martinique.

Only two globally threatened species have been considered in the IBA analysis (see Table 1). However, four other species have been recorded (albeit rarely and not in significant numbers) on the island: White-crowned Pigeon Patagioenas leucocephala, Caribbean Coot Fulica caribaea, Buff-breasted Sandpiper Tryngites subruficollis (all Near Threatened) and the Endangered Black-capped Petrel Pterodroma hastata. The Endangered R. brachyurus is found in Martinique only in Presqu’île de la Caravelle IBA (MQ004) where its population is estimated at 200–400 individuals. The endemic and Vulnerable I. bonana is found in various habitats but it has been suggested that dry forests and mangroves are most important for the bird. The total population is estimated at 10,000–19,000 individuals. Deforestation on the island has facilitated the spread of the recently established Shiny Cowbird Molothrus bonariensis, which parasitises 75% of oriole nests annually. However, a recent decline in cowbird numbers has allowed for a slight oriole population recovery.

Eight species of waterbirds (five herons/egrets, one duck, one rail, and one grebe) are nesting residents, and c.40 (10 ducks and 30 shorebirds) are Neotropical migrants. However, there are no areas with large concentrations of waterbirds. Migratory flocks are modest in size, with birds grouping together in small numbers across the island—along the coast, in the marshes, in natural ponds, in the lagoons behind the mangroves, and in the converted hunting areas.

**IMPORTANT BIRD AREAS**

Martinique’s 10 IBAs—the island’s international site priorities for bird conservation—cover 54,514 ha (including marine areas), and c.39% of the country’s land area. Most of Martinique IBAs have some protection (see “Conservation” above).

The IBAs have been identified on the basis of 26 key bird species (listed in Table 1) that variously meet the IBA criteria. These 26 species include two of the 6 globally threatened birds (see “Birds” above), all 19 restricted-range species, and seven congregatory waterbirds/seabirds. Presqu’île de la
Caravelle IBA (MQ004) is critical for supporting the only population of the Endangered White-breasted Thrasher *Ramphocinclus brachyurus*, as well as populations of other restricted-range species including the Vulnerable Martinique Oriole *Icterus bonana*. Five other IBAs have been identified on the basis of supporting a significant portion (between 52 and 95%) of the Lesser Antilles EBA restricted-range species that occur on the island (including, in each case, the Vulnerable *I. bonana*). The remaining four IBAs support significant populations of seabirds, highlighting the importance of this species-group in terms of Martinique’s international conservation responsibilities.

It is essential that hunting regulations are developed and applied for protected (e.g. Near Threatened White-crowned Pigeon *Patagioenas leucocephala* and Ruff-breasted Sandpiper *Tringytes subruficollis*) and restricted-range birds. It will be also important to educate hunters on the regulations they are legally obliged to adhere to, and on bird identification. To provide further protection for IBAs, further planning regulations will be needed, additional lands acquired, more visiting areas (e.g. Habitat Protection bylaw areas) designated, and new posts for environmental guardians created. Continued monitoring of the seabird colony IBAs for the presence of rats *Rattus* spp., with eradication actions taken where appropriate, will be essential in maintaining (and potentially increasing) the populations of Martinique’s seabirds. Further public education actions are needed to raise awareness of the richness and fragility of the island’s biodiversity.

The monitoring of globally threatened, restricted-range, hunted birds, seabirds and waterbirds should be continued

<table>
<thead>
<tr>
<th>Table 1. Key bird species at Important Bird Areas in Martinique.</th>
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<tr>
<td><strong>Key bird species</strong></td>
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<tr>
<td>Audubon’s Shearwater</td>
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<tr>
<td>Magnificent Frigatebird</td>
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<tr>
<td>Brown Booby</td>
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<tr>
<td>Roseate Tern</td>
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<tr>
<td>Bridled Tern</td>
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<td>Sooty Tern</td>
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<tr>
<td>Brown Noddy</td>
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<tr>
<td>Bridled Quail-dove</td>
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<tr>
<td>Lesser Antillean Swift</td>
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<tr>
<td>Purple-throated Carib</td>
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<tr>
<td>Green-throated Carib</td>
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<tr>
<td>Antillean Crested Hummingbird</td>
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<tr>
<td>Blue-headed Hummingbird</td>
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<tr>
<td>Caribbean Elaenia</td>
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<td>Lesser Antillean Pewee</td>
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<tr>
<td>Lesser Antillean Flycatcher</td>
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<tr>
<td>White-breasted Thrasher</td>
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<tr>
<td>Scaly-breasted Thrasher</td>
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<tr>
<td>Pearly-eyed Thrasher</td>
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<tr>
<td>Brown Trembler</td>
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<tr>
<td>Grey Trembler</td>
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<tr>
<td>Rufous-throated Solitaire</td>
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<tr>
<td>Martinique Oriole</td>
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<tr>
<td>Lesser Antillean Bulltinch</td>
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<tr>
<td>Antillean Euphonia</td>
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<tr>
<td>Lesser Antillean Saltator</td>
</tr>
</tbody>
</table>

All population figures = numbers of individuals.

Threatened birds: Endangered ■; Vulnerable ■; Restricted-range birds ■; Congregatory birds ■.
Important Bird Areas in the Caribbean – Martinique


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Important Bird Areas in the Caribbean – Martinique


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Important Bird Areas in the Caribbean – Martinique

MQ001 Forêts du Nord and de la Montagne Pelée

**Site description**
Forêts du Nord and de la Montagne Pelée IBA is situated at the northernmost end of the island. This forested massif embraces the Montagne Pelée (1,395 m) and several other peaks such as Piton Marcel (897 m) and Piton Mont Conil (1,026 m), and supports contiguous forest from the coast to the volcanic summits. Receiving exceptional levels of rainfall, the landscape is broken by numerous streams and river valleys. It is mostly forested, but also has areas of grassland and pasture, wetland and coast (including an offshore islet), and Creole gardens and plantations.

**Birds**
This IBA supports 18 (of the 19) Lesser Antilles EBA restricted-range birds including the Vulnerable Martinique Oriole *Icterus bonana*, the Blue-headed Hummingbird *Cyanophaia bicolor* and Grey Trembler *Cinclorhethia gutturalis*. It embraces some of the most significant populations of forest-dependent birds on the island. The Near Threatened White-crowned Pigeon *Patagioenas leucocephala* is present according to the hunters who shoot this increasingly rare species. Small numbers of seabirds breed on L’îlet La Perle. The Ringed Kingfisher *Megaceryle torquata stictipennis* sometimes occurs.

**Other biodiversity**
The Vulnerable Lesser Antillean iguana *Iguana delicatissima* occurs in the coastal forests, and globally threatened sea-turtles are present offshore. Taxa with ranges restricted to the Lesser Antilles include the pinktoe tarantula *Avicularia versicolor*, the coleopteran *Dynastes hercules braudrii* (endemic to Martinique), three bats and 69 tree species.

**Conservation**
Some of this IBA is privately owned. The coastal zone is protected within the Anse Couleuvre, Fond Moulin and Montagne Pelée Littoral Conservation Areas, and 2,100 ha on Montagne Pelée is designated a Site Classé (classified site). Strict protection and management have been advocated through the Schéma d’Aménagement Régional and the Schéma de Services Collectifs des Espaces Naturels et Ruraux; botanists have advocated for a nature reserve; and a marine reserve is being investigated. Forest on Montagne Pelée is managed by ONF, and CEL purchased 789 ha of forest for conservation purposes. A survey of the area’s biodiversity is needed. The inaccessibility of the massif means human activity and impact is limited. However, the coastal zone is subject to heavy erosion, uncontrolled hunting, tourism development, invasive alien predators, and pollution are concerns.

MQ002 Pitons du Carbet

**Site description**
Pitons du Carbet IBA is in north-central Martinique, and comprises the forested massif of the five Pitons du Carbet (the peaks of which are extinct volcanoes), and more than 10 other smaller hills. It is the most important montane forest area on the island. High rainfall has resulted in a dense network of streams and rivers throughout the mountains. There are several houses at mid-elevations, as well as numerous well-used walking trails. The IBA is used for recreational activities such as walking and canyoning, and hunting and “wild-harvesting” are permitted in certain areas.

**Birds**
This IBA is home to 18 (of the 19) Lesser Antilles EBA restricted-range birds including the Vulnerable Martinique Oriole *Icterus bonana*, the Blue-headed Hummingbird *Cyanophaia bicolor* and Grey Trembler *Cinclorhethia gutturalis*. Extrapolated (1996) abundance indices defined for one part of the massif suggest this IBA supports large populations of a number of the restricted-range forest species. The Ringed Kingfisher *Megaceryle torquata stictipennis* subspecies has been recorded within the IBA which is also a winter home to many Neotropical migratory birds.

**Other biodiversity**
Amongst the endemic plants are the Endangered *Pouteria pallida*, and Vulnerable *Freziera cordata*, *Schefflera urbaniana* and *Inga martinicensis*.

**Conservation**
Pitons du Carbet IBA is state-owned. The 7,000-ha Forêt Domaniale of Pitons du Carbet is strictly protected under the Schéma d’Aménagement Régional. ONF has started a Réserve Biologique Intégrale initiative that will cover c.4,000 ha of the Forêt Domaniale. A Réserve de Chasse (hunting reserve) covers a further 1,880 ha within the Forêt Domaniale. Although used for recreation, the limited accessibility of the area, and fear to the snake *Bothrops lanceolatus* mean that human disturbance and impact is minimal. ONF manages the forests, but very few trees are harvested from this area. ONF also has plantations of *Swietenia macrophylla* which have profoundly modified the natural forest structure in some areas. Shiny Cowbird *Molothrus bonariensis* could turn out to be a threat to *I. bonana* but seems to be decreasing on the island. There is no permanent research programme within the IBA, although SEPLANMAR has maintained constant-effort bird ringing (banding) sites since 2003.
Site description

Pointe du Pain de Sucre IBA is located along the coast of north-east of Martinique, north of (but including the coast of) the Caravelle Peninsula (Presqu’île de la Caravelle). The IBA is focused on a volcanic headland that extends into the sea for 300 m. It is surrounded by cliffs, covers 21 ha, and ends at the “sugarloaf” of Le Pain de Sucre at the end of the headland. Le Pain de Sucre and the nearby shoreline are not inhabited or developed, and are only visited by a few fishermen and walkers. L’Ilet Sainte-Marie, l’Ilet Saint-Aubain and Rocher de la Caravelle are relatively small, low-lying islets included within the extensive marine area of this IBA. The vegetation comprises coastal, drought-resistant plants. The marine extension to this IBA incorporates the island’s northern-most coral reefs.

Birds

Pointe du Pain de Sucre is a key seabird breeding site. The IBA supports globally significant populations of Roseate Tern Sterna dougallii (estimated to be c.250 pairs in 2006) and Common Tern S. hirundo (c.20 pairs on Petits Saints in 2001, but not seen there in 2007). Regionally important numbers of Magnificent Frigatebird Fregata magnificens roost on Le Rocher de la Caravelle, and the Brown Booby Sula leucogaster population on Gros Îlets and Petits Saints is also regionally important.

Other biodiversity

The lizard Anolis roquet roquet subspecies is endemic to Martinique, and is present on the islets.

Conservation

La Pointe Pain de Sucre IBA is state-owned. It is protected under an Arrêté de Protection de Biotope (habitat protection bylaw) which forbids access between 1 March and 31 August, and is managed as a Forêt Départementale du Littorale by ONF. The three islets are formally protected as a Littoral Conservation Area (under the terms of which no development is allowed within 15 m of the coast) belonging to CEL. A “Fish Preserve” forbids fishing within a marine zone between the towns of Sainte-Marie and Trinité (a 4-km stretch of coast) and extending 2 km out to sea from the coast of îlet Saint-Aubin. The main threats are human disturbance and invasive alien predators. A count of the Sterna dougallii colony was carried out in 2006 by SEPANMAR. For several years, SEPANMAR worked alongside ONF in proposing management interventions and monitoring Pointe Pain de Sucre.

Site description

Presqu’île de la Caravelle (Caravelle Peninsula) IBA is situated on a large peninsula (10 km long, 1 km wide) on the east coast of central Martinique. It consists of two main parts with identical habitat and less than 2 km between them, namely: the 900-ha Presqu’île de la Caravelle where Réserve Naturelle de la Caravelle lies; and the 60-ha Pointe Rouge to the west. Its unique location, pronounced cliffs and important forest cover harbour the only extant population of White-breasted Thrasher Ramphocinclus brachyurus present on the island. The ruins of Château Dubuc are within the reserve, and remnants of mangroves (a rare occurrence on the north Atlantic coast) persist at Pointe Rouge. This area is one of the driest in Martinique.

Birds

The dry forests of this IBA support Martinique’s only population of the Endangered White-breasted Thrasher Ramphocinclus brachyurus which numbers c.200–400 individuals distributed in three discrete parts of the IBA. Twelve (of the 19) Lesser Antilles EBA restricted-range birds occur, including the Vulnerable Martinique Oriole Icterus lanceolatus. Several seabird species nest on the cliffs (although not in significant numbers). About 80 bird species have been recorded in the IBA, c.65% of which are migrants (landbirds, shorebirds and seabirds).

Other biodiversity

Taxa endemic to Martinique include the snake Bothrops lanceolatus, a bat Myotis martiniquensis, a lizard Anolis roquet roquet and coleopteran Dynastes hercules baudrii.

Conservation

Presqu’île de la Caravelle IBA is a mix of private and state (e.g. CEL) owned land. Pointe Rouge is formally protected as a Littoral Conservation Area, and the Réserve Naturelle de la Caravelle (a national nature reserve within the broader Parc National Régional de la Martinique, PNRM) covers much of the rest. PNRM manages this reserve. The whole of the Presqu’île de la Caravelle is a Site Classé (i.e. covered by Classified Site Order) which controls and limits urbanisation. Areas already urbanised are within a Site Inscrit (i.e. covered by a Registered Site Order), which is less constraining. Research on R. brachyurus by M. Tayalay (Association Ornithologique de Martinique, AOMA) located important populations of the species at the edges of the Réserve Naturelle de la Caravelle, leading to the extension of the reserve into Morne Pavillon (on private lands). Invasive alien (mammalian) predators are a concern, as is the Shiny Cowbird Molothrus bonariensis, a brood-parasite of I. bonana.
Ilets Boiseau and Petit Piton IBA comprises two small islets off the east coast of central Martinique, south of Presqu’île de la Caravelle (IBA MQ004). L’îlet Boiseau (0.5 ha) and L’îlet Petit-Piton (0.6 ha) are 1.5 km apart, and are the islets furthest from shore within the Baie du Robert. They are volcanic, range between 15 and 25 m high and are surrounded by cliffs. Neither islet is inhabited or managed, but they lie within an area used by many fishermen, yachtmen and tourists. They support typical xerophytic coastal vegetation.

**Site description**

This IBA supports a globally significant breeding population of Roseate Tern *Sterna dougalli*. The colony is thought to move between the two islets, although L’îlet Boiseau is the most frequently occupied. In 2006, the colony was on L’îlet Petit-Piton. Counts of *S. dougalli* in 1997 (carried out by George Tayala) suggested the presence of c.600 birds. A follow-up survey (by Lionel Dubief in 2006) found c.150–200 pairs. Bridled Tern *S. anaethetus* nests in small numbers (c.10 pairs on each islet).

**Other biodiversity**

The Martinique endemic lizard *Anolis roquet roquet* subspecies occurs.

**Conservation**

Ilets Boiseau and Petit Piton IBA is state-owned and managed by the ONF. L’îlet Boiseau is protected under an Arrêté de Protection de Biotope (habitat protection bylaw). L’îlet Petit Piton is unprotected. Human disturbance and invasive alien predators are the main threats. In 2005, the colony of *S. dougallii* was mysteriously abandoned on l’îlet Boiseau, although the bodies of adult terns were found. SEPANMAR conducted a count on L’îlet Petit Piton in 2006 in order to proposing measure for management and monitoring of the site. Also, SEPANMAR and wardens from the commune of Le Robert carried out some urgent rat *Rattus* spp. eradication as a forerunner to an extended future project. The wardens of Le Robert ensure the upkeep and management of certain islets, and help enforce the laws relevant to the islands. CEL delegated the ecological management responsibility for L’îlet Boiseau to the commune of Le Robert.

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**Mangrove de Fort-de-France IBA**

Mangrove de Fort-de-France IBA covers the mangroves of the Baie de Fort-de-France, the largest area of mangrove in Martinique (1,200 ha of the 1,850 ha that remain on the island). It also includes the largest wetland on Martinique comprising numerous natural and man-made habitats. The IBA is situated on the south-eastern part of the large Baie de Fort-de-France (on the west coast of Martinique), next to the built-up area of Fort-de-France and Le Lamentin. To the east lie the agricultural plains of Le Lamentin and Rivière Salée.

**Site description**

This IBA supports 10 (of the 19) of the Lesser Antilles EBA restricted-range birds including the Vulnerable Martinique Oriole *Icterus bonana*. Many resident waterbirds also occur, as do more than 90 migratory species that visit the mangroves and associated habitats. This is the most significant migratory waterbird stop-over site on the island.

**Other biodiversity**

The endemic lizard *Anolis roquet roquet* subspecies occurs.

**Conservation**

Mangrove de Fort-de-France IBA is mostly a state-owned Domaine Public Maritime managed by the Direction Départementale de l’Équipement (which is responsible for the land) and ONF (which manages 240 ha of coastal forest). CEL protects 20 ha through a land purchase. The brackish grasslands and artificial water bodies are mostly private. There is a 250-ha hunting reserve, although the ban on hunting is poorly observed. Main threats are development (e.g. commercial and industrial parks, extension of the airport and marinas), pollution, sedimentation, siltation of marine habitats, agricultural expansion, uncontrolled hunting and introduced mammals predators. Université des Antilles et de la Guyane in Martinique has studied the flora and problems of pollution and siltation, but no inventory of the birds has been undertaken. Since the 1990s, all conservation projects in this IBA have failed or been abandoned. In 2007, Parc Naturel Régional de Martinique ordered a feasibility study for the establishment of a regional nature reserve. A “Bay Agreement” project, looking to limit the pollution and siltation problems, is also being carried out by the Communauté d’Agglomération du Centre et de l’Est de la Martinique (CACEM). Finally, an avian nesting ecology study (and wintering Neotropical migrant inventory) is being developed for ONF by the study group BIOS.
**Site description**

Massif forestier entre Le Diamant et les Trois-Îlets IBA is in south-west of Martinique, on the Caribbean coast south of the Baie de Fort-de-France. This forested massif (the highest point of which is Morne Larcher) has a rugged and varied relief including mornes, slopes, cliffs, rocks, ridges, ravines and ponds. The climate is one of the driest on Martinique: the village of Anses d’Arlet and du Diamant records annual rainfall of less than 1,200 mm. The IBA supports forest (of varying types depending on humidity), and is floristically diverse. There are also small areas of mangrove on the coastal fringe in the south-west.

**Birds**

This IBA supports 12 (of the 19) of the Lesser Antilles EBA restricted-range birds, including the Vulnerable Martinique Oriole Icterus bonana. The coast is visited by numerous seabirds as it is adjacent to the seabird breeding colonies of Rocher du Diamant IBA (MQ008). Ponds and rivers are visited regularly by resident waterbirds, and Neotropical migratory birds. The Endangered White-breasted Thrasher Ramphocinclus brachyurus occurred in the forests of Trois-Ilets until the end of the nineteenth century, but it has not been seen since then.

**Other biodiversity**

Endemic reptiles include the snake Bothrops lanceolatus, lizard Anolis roquet roquet, and gecko Sphaerodactylus vicentii.

**Conservation**

Massif forestier entre Le Diamant et les Trois-Îlets IBA is state-owned. Le Cap Salomon and Morne Larcher are Littoral Conservation Area (which prohibits development within 15 m of the coast. CEL owns two areas within the IBA: Morne Larcher (64 ha) and Cap Salomon (137 ha). The area from Morne Champagne to the village of Anses d’Arlet (320 ha) and Petite Anse to Anse Cafard (126 ha) are designated as Sites Classés (under Classified Site Orders). The whole area is designated as a Zone Naturelle d’Intérêt Ecologique Floristique et Faunistique (ZNIEFF) although this carries no legal weight. There is little human activity within the IBA, apart from the urban expansion at the boundaries (which needs to be monitored). However, some plants are selectively harvested, and this needs to be controlled or stopped. Invasive alien predators are abundant. Mr Gros-Désormeaux, a PhD student, recently completed studies of birds in this massif but the results are not yet available.

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**Site description**

Le Rocher du Diamant IBA is on the Caribbean coast of south-western Martinique. It comprises a 6-ha conical-shaped volcanic islet lying c.2 km offshore from Pointe du Diamant and the Morne Larcher massif. The islet is surrounded by cliffs rising to 176 m, with caves and wave-cut platforms. Vegetation is sparse, and confined to fissures in the rocks, and the very small areas of flat ground. The islet is uninhabited, although it was occupied towards the end of the eighteenth century when the British installed artillery pieces. Le Rocher du Diamant is within traditional fishing grounds often visited by fishermen. The IBA includes marine areas around the islet, and extending along the coasts on the southern side of Le Diamant et les Trois-Ilets IBA (MQ007).

**Birds**

This IBA is a significant seabird breeding site that supports a globally important population of Bridled Tern Sterna anaethetus (100–120 pairs), and regionally significant populations of non-breeding Brown Booby Sula leucogaster (160 birds) and breeding Brown Noddy Anous stolidus (200–250 pairs). The site is one of the most important roosting areas for Magnificent Frigatebird Fregata magnificens (50 individuals) in Martinique. Other seabirds that nest include Red-billed Tropicbird Phaethon aethereus (15–20 pairs) and White-tailed Tropicbird P. lepturus (1 pair). Audubon’s Shearwater Puffinus leucophrus nested regularly before the mid-twentieth century, but has not been recorded since.

**Other biodiversity**

The Critically Endangered snake Liophis cursor (endemic to Martinique) is found only on this islet.

**Conservation**

Le Rocher du Diamant IBA is state-owned and protected under an Arrêté de Protection de Biotope (habitat protection order). This bylaw is currently being modified to prohibit all access to the site. At the moment, fishermen frequently visit the island to store their equipment and fish with rods. Access restrictions take effect between 1 January and 31 August. The main threats are human disturbance and introduced alien species. The only recent studies of the islet are an ecological evaluation published in 1999 by the Centre de Recherche Géographie Développement Environnement (GEODE) de la Caraïbe (of the Université des Antilles et de la Guyane in Martinique), and an avifauna inventory published in 2004 by AMAZONA. Monitoring of animal populations on the islet is the responsibility of a working group of trained scientists.
**Important Bird Areas in the Caribbean – Martinique**

**MQ009 Grand Macabou**

**Site description**
Grand Macabou IBA is on the Atlantic coast of south-eastern Martinique, to the north of Îlets and falaises de Sainte Anne IBA (MQ010). It is bounded to the east by the sea and to the west by wire fencing keeping out wandering livestock. The IBA is formed from a plateau that slopes gently down towards the sea, and two hills. The area is traversed by two weakly flowing water courses, and there are some man-made water bodies: a 12-ha lake formed during quarrying; and two ponds created for livestock. Quarrying for sand has stopped. The beach and immediately adjacent areas are well visited. The IBA supports a mix of dry forest, shrubland, mangrove, and pasture.

**Birds**
This IBA is supports 10 (of the 19) of the Lesser Antilles EBA restricted-range birds including the Vulnerable Martinique Oriole Icterus bonana. The site is frequented by waterbirds and Neotropical migratory birds.

**Other biodiversity**
The Critically Endangered hawksbill Eretmochelys imbricata and leatherback Dermochelys coriacea turtles nest on the beach at Grand Macabou. The endemic subspecies of lizard Anolis roquet roquet and subspecies of gecko Sphaerodactylus vicent occur.

**Conservation**
Grand Macabou IBA is state-owned and comprises two main parts: 113 ha acquired by CEL, and the coastal forest (30 ha) along the edge of the CEL lands. The area is (in part) protected as a Littoral Conservation Area, and is also a Réserve de Chasse (hunting reserve, in which hunting is forbidden). Harvesting/gathering, camping and fires are also forbidden in this IBA. Human activity and disturbance is significant, most notably on the beach and in the forest behind it. Even though it is a hunting reserve, poaching still persists. Invasive alien mammal species occur. No research on birds is being undertaken within the IBA. The Office National de la Chasse et de la Faune Sauvage (ONCFS) will soon start monitoring the breeding sea-turtles.

**MQ010 Îlets and falaises de Sainte Anne**

**Site description**
Îlets and falaises de Sainte Anne (islets and cliffs of St Anne) IBA is made up of islets, cays and cliffs on the Atlantic coast of south-easternmost Martinique. Two flat, rocky islands of 0.25 ha comprise the Îlets Aux Chiens to the north, and to the south the rocky islet Table du Diable covers 0.4 ha. In the middle, four islets “Des îlets de Sainte-Anne” form the Réserve Naturelle (national nature reserve) namely L’îlet Hardy (2.5 ha), l’îlet Poirier (2 ha), L’îlet Burgaux (0.5 ha) and L’îlet Percé (0.5 ha). The coastal cliffs at Savane des Pétrifications extend for 1 km and are included in the IBA. The vegetation is poorly developed and consists of xerophytic coastal plants on limestone and volcanic substrate. The islets are all uninhabited but regularly visited by tourists.

**Birds**
This IBA supports more than 20,000 nesting seabirds, representing the most important site for seabirds in Martinique. Species with regionally significant populations are Sooty Tern Sterna fuscata (7,000–24,000 birds), Brown Noddy Anous stolidus (110–1,152 birds), Bridled Tern Sterna anaethetus (130–240 birds) and Audubon’s Shearwater Puffinus lherminieri (146 birds). Neotropical migratory shorebirds use this IBA.

**Other biodiversity**
This nature reserve supports Martinique’s only population of the crab Gecarcinus ruricola.

**Conservation**
Îlets and falaises de Sainte Anne IBA is state-owned. Access to the Réserve Naturelle is forbidden (other than for scientists) and it is illegal to approach within 50 m of the islets (a limit that will soon be extended to 100 m), or to fly over the area at less than 300 m (to avoid disturbing the seabirds). The Îlets aux Chiens and the cliffs of Savane des Pétrifications are included in two “Sites Inscrits” (under Registered Site Orders). These ministerial orders allow the control of all forms of urbanisation or building, but do not allow for control of people visiting the bird colonies, and nor does it put in place specific (or proactive) conservation measures. The Table du Diable is not protected. Poaching and the anchoring of boats persist even though access is forbidden. However, the main threat is the presence of black rats Rattus rattus. After 1999 when all seabird breeding attempts failed, rat eradication has been undertaken every year. The Réserve Naturelle is administered by two organisations, the Parc Naturel Régional de la Martinique (PNRM) and ONF, which oversee scientific research, monitoring (e.g. seabirds) and management within the reserve. The islets outside of the reserve enjoy no such attention.