DOMINICA

LAND AREA 754 km² ALTITUDE 0–1,447 m HUMAN POPULATION 72,400 CAPITAL ROSEAU IMPORTANT BIRD AREAS 4, totalling 106 km² IMPORTANT BIRD AREA PROTECTION 93% BIRD SPECIES 176 THREATENED BIRDS 3 RESTRICTED-RANGE BIRDS 19

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Morne Trois Pitons National Park, looking north-east towards Delices. (PHOTO: PAUL REILLO, RSCF/FWP DIVISION)

INTRODUCTION

The Commonwealth of Dominica is the most northerly of the Windward Islands, and at the mid-point of the Lesser Antillean chain. It lies between the French islands of Guadeloupe (c.28 km to the north) and Martinique (c.40 km to the south). The island is c.47 km long by 26 km wide, and is divided into 10 administrative parishes. Dominica is one of the youngest islands in the Lesser Antilles. Its volcanic origins have created an island characterised by very rugged and steep terrain. The volcanic cone of Morne Diablotin (1,447 m), along with Morne Au Diable on the northern peninsula, dominates the topography of the northern half of the island, while a chain of mountains (including Morne Trois Pitons, Morne Micotrin, Morne Watt, Morne Anglais, and Morne Plat Pays) extends through the south of the island.

Dominica's climate is classified as humid tropical marine, characterised by little seasonal or diurnal variation and strong, steady trade winds. The island is among the wettest in the Caribbean, a factor which gives rise to its lush vegetation. Rainfall is higher in the interior which receives >10,000 mm annually, and drops off substantially to 1,200 mm per year on the leeward (western) side of the island. Dominica's vegetation comprises more than 1,000 species of flowering

plants with about 68 rainforest tree species. Major terrestrial ecosystems include mature tropical rainforest, montane thicket and cloud forest (elfin woodland), and littoral woodland along the windward coast. Dry scrub and xeric woodland occupy much of the leeward coast. Dominica has, with justification, been referred to as the "nature island of the Caribbean". With its mostly unspoiled mountainous landscape, perennial streams, rivers and numerous waterfalls, and its great diversity of flora and fauna, the island is considered to be among the most beautiful and pristine countries in the world. The country's undisturbed forests are undoubtedly more extensive than on any other island in the Lesser Antilles.

Dominica's economy is heavily dependent upon tourism and agriculture, with c.20% of the workforce employed in the agricultural sector, particularly banana crops which have traditionally formed the backbone of the economy. Other primary agricultural exports include vegetables (e.g. dasheen, hot peppers and pumpkins), herbs, plantains, citrus, coconut oil and other essential oils. The island's lack of sandy beaches means that Dominica's tourism industry is dominated by scuba-diving and nature-tourism niche markets. Dominica's population is primarily concentrated along the flatter, coastal areas although in recent times there has been some limited residential development in the interior.

Conservation

The Forestry, Wildlife and National Parks Division (FWP Division, within the Ministry of Agriculture, Fisheries and Forestry) is the governmental agency responsible for the management of forest reserves and national parks, and for the conservation and protection of wild flora and fauna. Approximately 60% of Dominica is still under natural vegetative cover, albeit mostly on privately-owned lands. However, 20% of the island is under some form of protectedarea status. The legally established protected area system comprises: two forest reserves (totalling 5,688 ha), namely the Northern Forest Reserve and Central Forest Reserve; the three national parks (totalling c.10,746 ha) of Morne Trois Pitons National Park (a World Heritage Site), Morne Diablotin National Park, and Cabrits National Park; and the Soufriere-Scotts Head Marine Reserve that surrounds the Scotts Head Peninsula. It is important to note that the Cabrits National Park includes a 426-ha marine component. There are also large tracts of "Unallocated State Lands" in the Governor, La Guerre, Upper Layou, Morne Plaisance, and Fond Figues areas. Conservation in Dominica is implemented within the context of a number of statutes and pieces of legislation including the Forest Act, the National Parks and Protected Areas Act, and the Forestry and Wildlife Act. This latter act was amended in 1988 to make the Imperial Amazon Amazona imperialis and Red-necked Amazon A. arausiaca "specially protected birds". However, this existing legislation needs strengthening to maximise its impact, and the FWP Division is in need of capacity building and professional training in natural resource management to more effectively execute the legislation. The lack of a proper landuse policy for the country creates its own challenges for the land management and conservation programs being implemented.

In 1980, World Wildlife Fund funded the Forestry Division's research project to determine the status of the populations of the island's two parrot species following the

devastation of the birds' habitats during the passage of Hurricane David in 1979. In 1989 RARE Centre assisted the Division with "Project Sisserou" which was designed to raise public awareness about the importance of the island's parrot species. The parrots have provided a focus for conservation action. There is currently an ongoing initiative between the Rare Species Conservatory Foundation (RSCF) and the Government of Dominica to support the Forestry Division's parrot research and conservation program. This initiative started in 1997 and has broadened its scope significantly since then, bringing new technology and techniques to the Dominica Parrot Research Program; support and assistance in the establishment of the Morne Diablotin National Park; management and care for the Dominica Parrot Captive Breeding Program at the Parrot Conservation and Research Centre; and continuity in the FWP Division's environmental protection program. RSCF has also been supporting the Division's efforts to celebrate the annual month-long Caribbean Endemic Birds Festival—an important regional environmental awareness initiative (of the Society for the Conservation and Study of Caribbean Birds).

In spite of the conservation legislation and protective measures in place, biodiversity is under pressure in Dominica. Habitat is being lost due to agricultural expansion, housing development and proliferation of quarrying activities, but it is the illegal clearance of forest for agricultural activities (including marijuana) in the island's interior and areas used by the parrots that is of particular concern. Mature gommier trees (Dacryodes excelsa) are slashed for illegal gum harvesting. This is one of the key tree species used by both parrots for food and nesting. Natural disasters (e.g. tropical storms, hurricanes and volcanic activity) are also a significant threat to habitat. Hurricanes in particular are a major threat to the parrot populations, their nest trees, and foraging areas. Hurricane David devastated Dominica in 1979, nearly extirpating A. imperialis, and reducing A. arausiaca to a fragment of its former range.







Female Blue-headed Hummingbird, endemic to Dominica and Martinique. (PHOTO: PAUL REILLO, RSCF/FWP DIVISION)



Black-capped Petrel found at Trafalgar in May 2007. (PHOTO: ARLINGTON JAMES, FWP DIVISION)

Key bird species	Criteria	National population	Dominica IBAs			
			DM001	DM002	DM003	DM004
			Criteria	:		
Magnificent Frigatebird Fregata magnificens	-	300				30
Brown Booby Sula leucogaster		400			250	15
Bridled Tern Sterna anaethetus		500			250	25
Brown Noddy Anous stolidus	•	650			300	35
Black Noddy Anous minutus	•	350				35
Red-necked Amazon Amazona arausiaca	VU 🔳 🔳	850	500	200-500		
Imperial Amazon Amazona imperialis	EN 🔳	100	50-80	<50		
Lesser Antillean Swift Chaetura martinica			✓	✓		
Purple-throated Carib Eulampis jugularis			✓	✓		
Green-throated Carib Eulampis holosericeus			✓	✓		
Antillean Crested Hummingbird Orthorhyncus cristatus			✓	✓	✓	
Blue-headed Hummingbird Cyanophaia bicolor			✓	✓		
Caribbean Elaenia Elaenia martinica			✓	✓	✓	
Lesser Antillean Pewee Contopus latirostris			✓	✓		
Lesser Antillean Flycatcher Myiarchus oberi			✓	✓	✓	
Scaly-breasted Thrasher Margarops fuscus			✓	✓	✓	
Pearly-eyed Thrasher Margarops fuscatus			✓	✓		
Brown Trembler Cinclocerthia ruficauda			✓	✓		
Rufous-throated Solitaire Myadestes genibarbis			✓	✓		
Forest Thrush Cichlherminia Iherminieri	VU 🔳 🔳	200	100	100		
Plumbeous Warbler Dendroica plumbea			✓	✓	✓	
Lesser Antillean Bullfinch Loxigilla noctis			✓	✓	✓	
Antillean Euphonia Euphonia musica			✓	✓	✓	
Lesser Antillean Saltator Saltator albicollis			√	✓	✓	

Birds

A total of 176 species of birds have been recorded for Dominica, of which about 66% are Neotropical migrants and 34% (62 species) are resident species. Nineteen of the 38 Lesser Antilles EBA restricted-range birds occur on the island, including the Blue-headed Hummingbird *Cyanophaia bicolor* which occurs just on Dominica and neighbouring Martinique, and Plumbeous Warbler *Dendroica plumbea* which is shared only with Guadeloupe. Most significantly though, Dominica supports two single-island endemic *Amazona* parrots—the only small island in the Caribbean to do so. The Imperial Amazon (or "Sisserou") *Amazona imperialis* is Dominica's

national bird and is featured on the country's flag and Coatof-Arms. It is also the largest of all *Amazona* parrots. It shares the island with the Red-necked Amazon (or "Jaco") *A. arausiaca*.

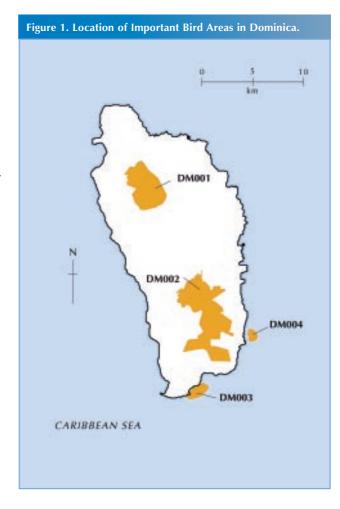
Both of Dominica's parrots are globally threatened (the Sisserou being Endangered and the Jaco Vulnerable) and promoted as conservation flagship species. In the past, hunting for food and the pet trade, loss of habitat through natural disasters (particularly hurricanes) and increasing agricultural expansion were the main threats to both species. In recent times *A. arausiaca* has been depredating on farmers' citrus and passion fruit crops in several localities on the island. As

A. imperialis is globally threatened and at risk from both environmental and anthropogenic factors, there is a need for regular monitoring and further research on its breeding biology, and to extend parrot research activities into remote areas within the Northern Forest Reserve, Morne Diablotin National Park and Morne Trois Pitons National Park. Dominica supports a third globally threatened bird species the Vulnerable Forest Thrush Cichlherminia lherminieri (see Table 1 for threat categories and population sizes of the island's globally threatened birds), and may yet prove to be a breeding location for the Endangered Black-capped Petrel Pterodroma hasitata. Breeding of this species has not been proven, but a small flock was seen at sea in April 1984 (off the south-east coast) and there are reports of birds calling at night in the south of the island from the 1980s. Most recently (in May 2007) a bird was found just outside the Morne Trois Pitons National Park.

IMPORTANT BIRD AREAS

Dominica's four IBAs—the island's international priority sites for bird conservation—cover 106 km² (including marine areas), and about 13% of the islands' land area. The two forest IBAs are national parks (totalling c.9,845 ha), and thus 93% of the area covered by the island's IBAs is under protection. The two seabird/ marine IBAs are not formally protected.

The IBAs have been identified on the basis of 25 key bird species (listed in Table 1) that variously trigger the IBA criteria. These 25 species include three globally threatened birds, all 19 restricted-range species, and six congregatory seabirds. The two forested national park IBAs (Morne Diablotin and Morne Trois Pitons, IBAs DM001 and DM002) embrace populations of all the restricted-range species and the majority of the populations of all three globally threatened species (the two *Amazona* parrots and the Forest Thrush



Morne Diablotin. (PHOTO: PAUL REILLO, RSCF/FWP DIVISION)



Cichlherminia lherminieri), emphasising how critically important these two IBAs are for the maintenance of the island's biodiversity. Point Des Foux IBA (DM003) and L'Ilet IBA (DM004) between them support most of Dominica's breeding seabirds, but without any formal protection they remain vulnerable to poaching and potentially invasive mammalian predators.

The existing parrot monitoring program needs to be expanded to include field assessments (surveys and subsequent monitoring) for *C. lherminieri* and the seabird populations. Monitoring results should be used to inform the annual assessment of state, pressure and response variables at each of the island's IBAs to provide an objective status assessment and highlight management interventions that might be required to maintain these internationally important biodiversity sites.

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ACKNOWLEDGEMENTS

The authors would like to thank Arlington James and David Williams (Forestry, Wildlife and Parks Division), and Paul Reillo (Rare Species Conservatory Foundation) for their input in reviewing this chapter.



■ Site description

Morne Diablotin National Park IBA is located within one of the northern mountain ranges and boasts the highest mountain peak—Morne Diablotin—on Dominica. The IBA is 95% forested, and bounded on the north-east, east and south sides by the Northern Forest Reserve. Privately-owned agricultural lands are found on the north- and south-western boundaries of the park. The nearest residential area is 10 km distant on the west coast.

Birds

This IBA is important, and indeed the national park was established for the Endangered Imperial Amazon *Amazona imperialis* and the Vulnerable Red-necked Amazon *A. arausiaca*. The majority of the world population of *A. imperialis* is found within this IBA with 50–80 birds currently present, and it also supports the largest population of *A. arausiaca*. A healthy population of the Vulnerable Forest Thrush *Cichlherminia lherminieri* also occurs. Populations of all 19 Lesser Antilles EBA restricted-range birds are supported within this IBA.

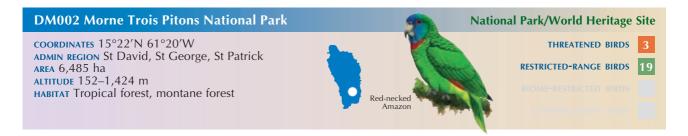
Other biodiversity

The Endangered endemic Dominican tink frog *Eleutherodactylus* amplinympha occurs, as does the Vulnerable Lesser Antillean

iguana *Iguana delacatissima*, the endemic Dominica anole *Anolis oculatus* and the regionally endemic least gecko *Sphaerodactylus vincenti*. The IBA also supports populations of the endemic subspecies of agouti *Dasyprocta leporina* and opossum *Didelphys marsupialis insularis*. The endemic boa *Boa* (*constrictor*) *nebulosa* may warrant full species status.

Conservation

Morne Diablotin National Park was established in 2000 to protect the critically important populations of the two endemic Amazona parrots. The IBA is mostly state owned, with some private land holdings (used for agriculture) on the western side. The Northern Forest Reserve abuts the IBA, and the Central Forest Reserve is in close proximity, both providing a buffer to some potential threats. Unauthorised occupation of some areas in the interior for illegal agricultural farming activities leads to some deforestation, including the felling of tree species utilised by both parrot species for nesting and foraging. These activities are also occurring on private lands in close proximity to the IBA. Illegal hunting for feral pigs Sus scrofa can lead to the discovery of parrot nests and subsequent poaching activities, and is thus a major concern. Hurricanes and tropical storms can impact nest trees/ cavities and food sources for both parrot species.



■ Site description

The Morne Trois Pitons National Park IBA is in the highlands of southern Dominica. The IBA rises from the lowlands in the south-east of the island towards the three prominent peaks of Morne Trois Pitons. The IBA, Dominica's largest national park, comprises some of the best remaining examples of volcanic island ecosystems in the Caribbean with active volcanic and geothermal areas (e.g. Boiling Lake and the Valley of Desolation), mountains, lakes and clear streams (Emerald Pool, Freshwater Lake, Middleham falls), tropical forest and elfin forest on the highest peaks. Communities close to the west, south-west and southeast boundaries of the IBA include Eggleston, Cochrane, Grand Fond, Laudat, Giraudel, Petite Savanne and Bagatelle.

Birds

This IBA is important for the Endangered Imperial Amazon *Amazona imperialis* and the Vulnerable Red-necked Amazon *A. arausiaca*. It supports the smaller of the two known populations of these parrots, with <50 *A. imperialis* and 200–500 *A. arausiaca*, but is nevertheless critical the survival of both. A healthy population of the Vulnerable Forest Thrush *Cichlherminia lherminieri* also occurs. Populations of all 19 Lesser Antilles EBA restricted-range birds are supported within this IBA. In May 2007, an Endangered Black-capped Petrel

Pterodroma hasitata was found in the village of Trafalgar, just 3 km from the boundaries of the park.

Other biodiversity

The Endangered endemic Dominican tink frog Eleutherodactylus amplinympha occurs, as do the endemic Dominica anolis Anolis oculatus and bromeliad Pitcairnia micotrinensis. The IBA also supports populations of the endemic subspecies of agouti Dasyprocta leporina and opossum Didelphys marsupialis insularis. The endemic boa Boa (constrictor) nebulosa may warrant full species status.

Conservation

Morne Trois Pitons National Park IBA is the largest of Dominica's three national parks. It is state owned and was established as a UNESCO World Heritage Site in 1997. It includes the 375-ha Archbold Preserve (donated by John D. Archbold). Unauthorised occupation of some areas for illegal agricultural farming activities leads to some deforestation, and if allowed to continue, will impact the populations of both species of globally threatened parrot. Agricultural expansion is of great concern for the long-term viability of the parrots. Volcanic activity is an ever present threat to the IBA and the birds it supports.



■ Site description

Point Des Fous IBA is at the southernmost tip of Dominica, on the Atlantic coast between the villages of Grand Bay and Scotts Head. The IBA embraces the rocky sea cliffs at Point Des Foux, the coastline to the north-east, some of the wooded areas inland from the coast on the cliff tops, and marine areas up to 1 km from Point Des Foux. It is an area of steep and rugged terrain, and is in close proximity to Petite Coulibri Estate and Morne Fous Estate. Residential areas are c.2 km to the north and west of the site.

Birds

This IBA is important as a breeding site for six species of seabird including regionally important populations of Brown Booby *Sula leucogaster*, Brown Noddy *Anous stolidus*, Bridled Tern *Sterna anaethetus* and White-tailed Tropicbird *Phaethon lepturus*. This site and L'Ilet IBA (DM004) represent the two main seabird breeding colonies in the country. Populations of

eight (of the 19) Lesser Antilles EBA restricted-range birds occur at this IBA including Plumbeus Warbler *Dendroica* plumbea.

Other biodiversity

The Vulnerable Lesser Antillean iguana *Iguana delacatissima* occurs, as do the endemic Dominica anolis *Anolis oculatus*, Dominica ameiva *Ameiva fuscata* and boa *Boa (constrictor) nebulosa* (which may warrant full species status).

■ Conservation

Point Des Foux IBA is privately owned and not formally protected. The Soufriere–Scotts Head Marine Reserve is c.3 km to the east of the IBA. The steep terrain has restricted human activity to a large extent. However, illegal hunting for some bird species and their eggs is a major concern. Facing the Atlantic, the breeding seabirds in this IBA are vulnerable to the impacts of tropical storms and hurricanes.



■ Site description

L'Ilet IBA is a small (c.200 m²) islet, c.200 m from shore to the south of the village of Boetica on the south-east, Atlantic coast of Dominica. The islet is rocky with vegetation covering the top. The IBA includes all marine areas up to 1 km from the islet. The Morne Trois Pitons National Park IBA (DM002) is just 5 km from L'Ilet.

Birds

This IBA is globally significant for its population of Black Noddy Anous minutus, and regionally important as a breeding site for six other species of seabird, namely Magnificent Frigatebird Fregata magnificens, Brown Booby Sula leucogaster, Brown Noddy A. stolidus, Bridled Tern Sterna anaethetus and White-tailed Tropicbird Phaethon lepturus. This site and Point Des Foux IBA (DM003) represent the two main seabird breeding colonies in the country. A number of land birds also occur including the restricted-range

Antillean Crested Hummingbird Orthorhyncus cristatus, Green -throated Carib Eulampis holosericeus and Lesser Antillean Bullfinch Loxigilla noctis.

Other biodiversity

The flora and fauna recorded for the island does not include any endemic or threatened species.

Conservation

L'Ilet IBA is state owned but unprotected. The nearest residential area is c.3 km from the islet. This, and the fact that access is only by swimming or boat, has limited the human activity at the site and therefore disturbance to the breeding seabirds. However, illegal hunting for some bird species and their eggs is a major concern. Being situated on the exposed Atlantic coast, L'Ilet is vulnerable to high winds associated with hurricanes and tropical storms, and to being over-washed by waves and storm-surges.