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BirdLife International is a UK-registered charity No. 1042125
ISBN: 978-9942-9959-0-2

Recommended citation: DEVENISH, C., DÍAZ FERNÁNDEZ, D. F., CLAY, R. P., DAVIDSON, I. & YÉPEZ ZABALA, I. Eds. (2009) *Important Bird Areas Americas - Priority sites for biodiversity conservation*. Quito, Ecuador: BirdLife International (BirdLife Conservation Series No. 16).

To cite this chapter: CULZAC-WILSON, L. (2009) St Vincent and the Grenadines. Pp 339 – 344 in C. Devenish, D. F. Díaz Fernández, R. P. Clay, I. Davidson & I. Yépez Zabala Eds. *Important Bird Areas Americas - Priority sites for biodiversity conservation*. Quito, Ecuador: BirdLife International (BirdLife Conservation Series No. 16).

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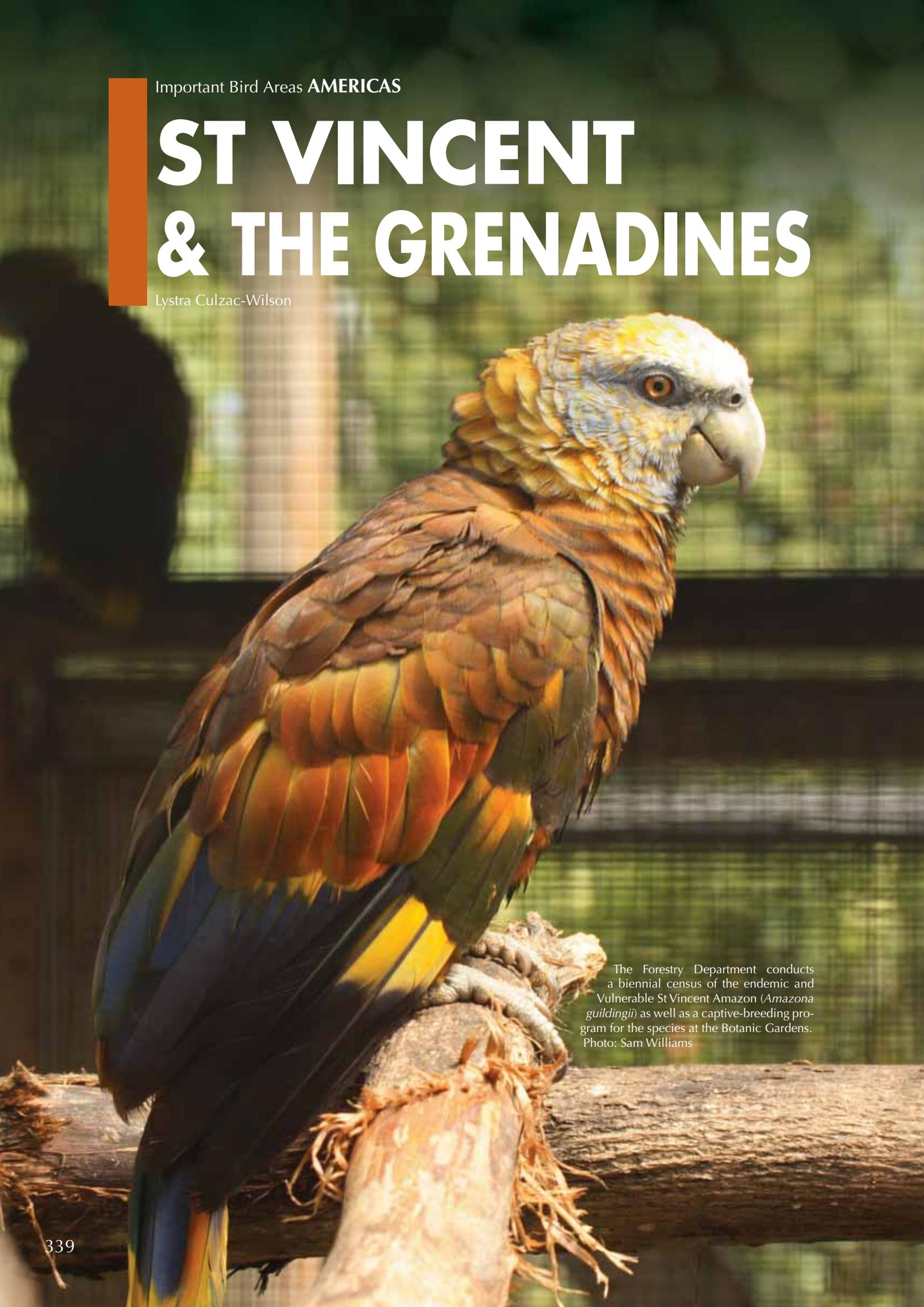
Graphic design: Alejandro Miranda Baldares (alejoanime@yahoo.com)
Translations: Christian Devenish, Ítala Yépez Zabala & Amiro Pérez-Leroux
Maps: David F. Díaz Fernández, Ítala Yépez Zabala & Christian Devenish
Edition of Spanish language country chapters: Ítala Yépez Zabala, Carlos Huertas Sánchez & David F. Díaz Fernández
Graphic design volunteer (Spanish language country chapters): Adriana Valencia Tapia
Printed in Ecuador by Poligráfica C.A.

This publication and all country/territory chapters in their native languages are available for download at www.birdlife.org/

Important Bird Areas AMERICAS

ST VINCENT & THE GRENADINES

Lystra Culzac-Wilson

A detailed photograph of a St. Vincent Amazon parrot perched on a weathered wooden branch. The parrot has a white face with a blue patch around its eye, a large white beak, and a crest of yellow and white feathers. Its body is covered in brown and orange feathers, with a prominent yellow patch on its wing. The background is a blurred green, suggesting a natural habitat.

The Forestry Department conducts a biennial census of the endemic and Vulnerable St Vincent Amazon (*Amazona guildingii*) as well as a captive-breeding program for the species at the Botanic Gardens. Photo: Sam Williams



Country facts at a glance

Area:	389 km ²
Population:	102,250
Capital:	Kingstown
Altitude:	0–1234 m
Number of IBAs:	15
Total IBA area:	17,900 ha
IBA coverage of land area:	35%
Total number of birds:	152
Globally threatened birds:	2
Globally threatened birds in IBAs:	2
Country endemics:	2

General introduction

St Vincent and the Grenadines is a multi-island nation in the Windward Islands of the Lesser Antillean chain. St Vincent is the main island (c.29 km long and 18 km wide, making up c.88% of the nation's land area) and lies furthest north, c.35 km south-south-west of St Lucia. The chain of Grenadine islands (comprising numerous islands, islets, rocks and reefs) extends south for 75 km towards the island of Grenada, with Union Island being the most southerly. Other major islands of the (St Vincent) Grenadines are Bequia (which is the largest), Mustique, Canouan, Mayreau, Palm (Prune) Island and Petit St Vincent. The country is divided into six parishes, five of which (Charlotte, Saint Andrew, Saint David, Saint George and Saint Patrick) cover the main island of St Vincent, the sixth being the Grenadines. The capital, Kingstown (in St George parish on the south-east coast) supports c.25% of the country's population, while the Grenadines are home to about 8%.

St Vincent and the Grenadines were formed volcanically. The island of St Vincent is divided by a central mountain range which starts in the north with La Soufriere (1234 m)—an active volcano and the island's highest point. The Morne Garu mountain range (with Richmond peak, 1077 m and Mount Brisbane, 932 m) lies to the south of La Soufriere, and then Grand Bonhomme (970 m), Petit Bonhomme (756 m) and Mount St Andrew (736 m) are south of this. A large number of very steep lateral ridges emanate from the central massif culminating in high, rugged and almost vertical cliffs on the (eastern) leeward coast, while the windward coast is more gently sloping, with wider, flatter valleys. In contrast to St Vincent, the Grenadines have a much gentler relief, with the mountain peaks on these islands rising to 150 – 300 m. There are no perennial streams in the Grenadines (although there is a spring on Bequia), and unlike much of the mainland, these islands are surrounded by fringing reefs and white sand beaches.



Ashton Lagoon (VC015) on Union Island in the southern Grenadines.
Photo: Gregg Moore

St Vincent's tropical climate has two distinct seasons: a dry season from December to May; and a rainy season from May through October. The average annual rainfall is 3800 mm inland, and 2000 mm on the coast. However, the forested interior of St Vincent can receive as much as 5100 mm, while the Grenadines may receive as little as 460 mm. Natural vegetation corresponds to elevation, geology and rainfall, and includes rainforest (mostly between 300 and 500 m), elfin woodland and montane forest (above 500 m), palm brake (between the rainforest and montane forest, and in disturbed areas), and mangrove (of which there is just c.50 ha in the country, most of which is on Union Island with some on Mustique). The country is about 29% forested, with natural forest comprising 70% of this, and planted forest and agro-forest representing c.25% and 5% respectively. Although these forests

are some of the most extensive unaltered tropical forests in the Lesser Antilles, they are being lost at a rate of 3–5% annually, due primarily to encroachment of banana cultivation and illegal farming. Tourism and agriculture are the major contributors to the country's economy. However, agriculture relies almost exclusively on banana plantations/industry and thus this sector is highly vulnerable to global economic fluctuations and natural disasters. St Vincent and the Grenadines have suffered considerably from natural disasters. In 1902, La Soufriere volcano erupted and killed c.2000 people. It erupted again in 1979, this time without loss of life, but on both occasions extensive damage was caused to agricultural lands and thus the economy. Hurricanes hit the island hard in 1980 and 1987, destroying (amongst other things) banana and coconut plantations.

Conservation and protected area system



St Vincent and the Grenadines' National Parks Act (2002) is the country's most comprehensive piece of protected area legislation under which a System of Protected Areas and Heritage Sites (SPAHS) has been developed to protect and manage existing and proposed protected areas. As a program, SPAHS has a comprehensive set of management aims including: scientific research, wilderness protection and landscape maintenance, preservation of species and genetic diversity, maintenance of environmental services, protection of specific natural features, promotion of recreation and tourism, education, sustainable use of natural ecosystems and maintenance of cultural and traditional attributes. However, the program is awaiting funding before full implementation can take place and, in the interim, the conservation of the country's biodiversity is being undertaken in a piecemeal fashion by several government agencies and statutory bodies (e.g. National Parks, Rivers and Beaches Authority). The main agencies and government departments involved in biodiversity conservation include the National Parks Unit (NPU, a statutory body affiliated with the Ministry of Tourism, and the agency responsible for implementing SPAHS); Ministry of Health and the Environment (through its Environmental Services Unit, which is responsible for environmental monitoring, regulation and education but is currently not fully established or staffed); Ministry of Agriculture, Forestry and Fisheries (within which Forestry Department coordinates the protection and management of the country's forests and wildlife (including birds), conducts environmental education, the biennial census of St Vincent Amazon (*Amazona guildingii*) and a captive-breeding program for the species); Central Water and Sewerage Authority; and the Central Planning Unit (which, through its Physical Planning Unit, prepares development plans and administers planning regulations).

The legislation that speaks directly for the protection of birds is the Wildlife Protection Act (1987) which provides authority for the establishment of bird sanctuaries and wildlife reserves. The Act provides full protection for over 75 species of birds, but allows shorebirds and gamebirds to be hunted during an October–February open season. There are many other pieces of legislation that offer indirect protection to birds through the protection of habitats and biodiversity as a whole. These include the Marine Parks Act (which makes provision for the declaration of marine parks); the National Parks Act (allowing the establishment of

national parks); the Mustique Company Ltd Act (which declares Mustique to be a conservation area); and others such as the Beach Protection Act, Fisheries Act, and the Forest Resource Conservation Act. Under these various Acts, 36 protected areas have been established (three forest reserves, 23 wildlife reserves, one marine park, one marine reserve and seven marine conservation areas). However, SPAHS proposes a system of 47 protected areas (one national park, eight forest reserves, 16 wildlife reserves, three natural landmarks, seven cultural landmarks, one protected landscape/seascape, five marine parks, three marine reserves and three marine conservation areas) and will result in the reclassification or re-designation of a number of the existing protected areas to remove duplication or to change management objectives.

Major bird conservation actions in St Vincent and the Grenadines are generally implemented by the Forestry Department. Through its environmental education unit, pupils and community personnel are provided with information on the country's birds (mainly endemic) and their importance. Forestry Department also conducts guided tours to the Vermont Nature Trail (within the St Vincent Parrot Reserve) and other bird habitats, and manages the St Vincent Amazon captive breeding program at the Nicholl's Wildlife Complex in the Botanic Gardens. This program is supported by the international St Vincent Parrot Conservation Consortium. The only national bird conservation NGO in the country is AvianEyes which aims to support nature conservation through birding, and conducts research, environmental education (e.g. as part of the Society for the Conservation and Study of Caribbean Birds', SCSCB's, West Indian Whistling-duck and Wetlands Conservation Program), and leads birding tours. In the Grenadines, the Mustique Company has stipulated protection for all its birds, and has developed a self-guided trail (with viewing hide) around the Lagoon wetland. On Union Island, a trail managed by the local NGO Union Island Ecotourism Movement is part of a conservation initiative for part of the Ashton Wetland (although the NGO does not have legal ownership of the area). This same wetland is the focus of a restoration project that will include the establishment of the site as a "Watchable Wildlife Pond" (under SCSCB's West Indian Whistling-duck and Wetlands Conservation Program). In spite of these efforts and initiatives, there is a clear need for: greater education and awareness (at all levels of society); the implementation of SPAHS; strengthened legislation and rigorous enforcement; and strengthened capacity for bird conservation.



Trinity Falls within the Richmond Forest Reserve (VC002), a proposed forest reserve under SPAHS (see text).
Photo: Lystra Culzac-Wilson

"A proposed "cross-country road" would bisect the center of the St Vincent Amazon's range resulting in a new axis for deforestation across the country."

Habitat loss and fragmentation due to squatting for housing, agriculture, illegal marijuana (*Cannabis sativa*) farming and development are major factors threatening biodiversity in St Vincent and the Grenadines. Deforestation has been identified as a main factor impacting the country's national bird—the Vulnerable St Vincent Amazon. A proposed "cross-country road" that would bisect the center of the parrot's range (and primary rainforest habitats) would result in a new axis for

deforestation across the center of St Vincent. It would also provide increased access to the parrots for poachers and hunters. Poaching has been identified as one of the main threats to St Vincent Amazon, with birds removed to (illegally) supply the international pet trade. Hunting parrots as a source of food is an ongoing (although declining) threat. Wetland habitats (including beaches, mangroves, and marshland) are suffering as a result of developments such as hotels and marinas, but also due to illegal removal of beach (and dune) sand for the construction industry, and cutting of mangroves for charcoal production. The fragmentation of habitats and degradation of coastal ecosystems is

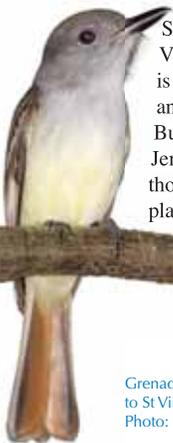
making the country increasingly vulnerable to the impacts of natural disasters such as hurricanes, tropical storms, storm surges and heavy rains. Specific threats to birds include the removal of unfledged Scaly-naped Pigeon (*Patagioenas squamosa*) from the nest for meat, collection of seabird eggs (and taking adult seabirds for food), incidental poisoning of birds with agrochemicals (especially pesticides associated with the banana industry), legal but unregulated or monitored hunting of waterbirds, and predation from alien invasive mammals: mongoose (*Herpestes auropunctus*), rats (*Rattus rattus* and *R. norvegicus*), mouse (*Mus muscalus*) and opossum (*Didelphis marsupialis*).

Ornithological importance

Over 150 species of bird have been recorded from St Vincent and the Grenadines, 95 of which breed on the islands. Lesser Antilles Endemic Bird Area (EBA 030) restricted-range birds (of which there are 38) are represented by 14 species, two of which—St Vincent Parrot (*Amazona guildingii*) and Whistling Warbler (*Catharopeza bishopi*)—are endemic to the main island of St Vincent. The Grenada Flycatcher (*Myiarchus nugator*) and Lesser Antillean Tanager (*Tangara cucullata*) are restricted to St Vincent and Grenada. A subspecies of Rufous-throated Solitaire (*Myadestes genibarbis sibilans*) is endemic to St Vincent, as is a subspecies of House Wren (*Troglodytes aedon musicus*). Just two globally threatened species are represented in IBAs. However, six species have been recorded from the islands. The Critically Endangered Eskimo Curlew (*Numenius borealis*) was noted as a “rare migrant” prior to 1943; the Near Threatened Buff-breasted Sandpiper (*Tryngites subruficollis*) is a very rare migrant; the Near Threatened Caribbean Coot (*Fulica caribaea*) appears to be a recent colonist (post-1970s) and although it breeds now in Mustique (and possibly elsewhere), the population is unknown; and the Near Threatened Piping Plover (*Charadrius melodus*) is recorded only as a vagrant. The two species that feature prominently in the IBA analysis are the two St Vincent island endemics—the Endangered Whistling Warbler and the Vulnerable St Vincent Parrot.

“There have been no estimates of the endemic Whistling Warbler population in the last 20 years.”

Whistling Warbler is endemic to mainland St Vincent where it is found primarily within the Colonarie and Perseverance valleys and at Richmond peak. It is most abundant in primary, elfin and palm brake forests (mostly between 300 and 600 m) of which there are c.80 km² that (in June–August 1988) supported an estimated 1500–2500 territorial males. There have been no estimates of the population in the last 20 years. Forest loss from illegal human activities and particularly eruptions of La Soufriere volcano is the main threat. Eruptions in 1902 and 1979 had a devastating effect on the warbler’s habitats on and around La Soufriere—after 1902 the species was seemingly extinct in the northern mountains. Potential confusion between the call of Whistling Warbler and the Brown Trembler (*Cincloerthia ruficauda*) should be assessed, and with this in mind, a new population density estimate for the warbler made.



St Vincent Parrot (*Amazona guildingii*) is St Vincent and the Grenadines’ national bird. It is confined to mature rainforest between 125 and 1000 m, mostly in the upper reaches of the Buccament, Cumberland, Colonarie, Congo–Jennings–Perseverance and Richmond valleys, though birds do stray into nearby farmland and plantations to forage. The Forestry Department

Grenada Flycatcher (*Myiarchus nugator*) is endemic to St Vincent and the Grenadines, and Grenada.
Photo: Gregory Guida

conducts a biennial census of the parrot, and in 2004 the population was estimated at 734 individuals. In 1987 the 4400-ha St Vincent Parrot Reserve was established to protect the species, and in 2005 a five-year Species Conservation Plan was developed for the bird. There is an ongoing captive breeding program for the parrot at the Nicholl’s Wildlife Complex in the Botanic Gardens.



Dalaway Forest Reserve (VC006), a protected stronghold for the St Vincent Amazon (*Amazona guildingii*).
Photo: Lystra Culzac-Wilson

St Vincent and the Grenadines supports populations of 76 species of waterbirds (including seabirds). Three species of seabird breed on St Vincent: White-tailed Tropicbird (*Phaethon lepturus*), Roseate Tern (*Sterna dougallii*) and Brown Noddy (*Anous stolidus*), and an additional nine species nest on uninhabited or undisturbed islets in the Grenadines, namely Red-billed Tropicbird (*Phaethon aethereus*), Magnificent Frigatebird (*Fregata magnificens*), Masked Booby (*Sula dactylatra*), Red-footed Booby (*S. sula*), Brown Booby (*S. leucogaster*), Laughing Gull (*Larus atricilla*), Royal Tern (*Sterna maxima*), Bridled Tern (*S. anaethetus*) and Sooty Tern (*S. fuscata*). The current breeding status of Audubon’s Shearwater (*Puffinus lherminieri*) in the country is unknown (although it certainly used to breed). In fact the current status and population of most of the country’s seabirds is poorly known, although poaching of seabird eggs by fishermen is a common (but neither regulated nor policed) tradition practiced on the smaller islets, and could be significantly impacting on a number of species. Similarly, the populations of waterbirds (ducks, shorebirds) are poorly known, but many are listed as game birds that can be hunted between 1 October and 28 February. This hunting is not policed or regulated—numbers of individuals of each species shot and therefore the impact on species populations is unknown.



The Endangered Whistling Warbler (*Catharopeza bishopi*) is endemic to mainland St Vincent.
Photo: Allan Sander

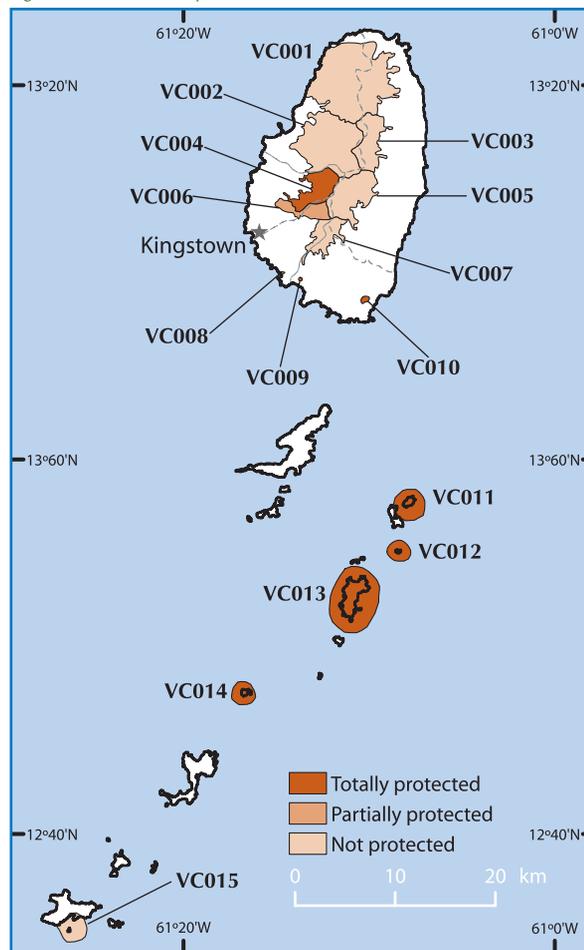
IBA overview

St Vincent and the Grenadines' 15 IBAs (Table 1, Figure 1) have been identified on the basis of 17 key bird species, including two globally threatened birds, all 14 restricted-range species and three congregatory waterbirds/seabirds. Ten of the IBAs are on St Vincent and five are scattered throughout the Grenadines islands. Of the St Vincent island IBAs, seven are contiguous with each other in the forested interior where they form the proposed (under SPAHS) Central Forest Reserve. These seven IBAs (which comprise the existing Cumberland Forest Reserve, five individual proposed forest reserves and a proposed national park) embrace the majority of the country's remnant primary rainforest, secondary forest, elfin woodland and palm brake, and thus significant portions of the ranges of endemic species, such as St Vincent Parrot (*Amazona guildingii*), Whistling Warbler (*Catharopeza bishopi*) and St Vincent blacksnake (*Chironius vincenti*). They also cover watersheds that produce over 90% of the country's potable water and a significant proportion of its hydroelectric power. However, only Cumberland Forest Reserve IBA (VC004) and Dalaway Forest Reserve IBA (VC006) are formally protected at the present time. Protection for the remaining IBAs and for the whole Central Forest Reserve (which encompasses prime gaps in the range of St Vincent Parrot that existed after the creation of the St Vincent Parrot Reserve in 1987) requires the implementation of SPAHS. Thus, only 31% of the area covered by the St Vincent and Grenadines IBAs is currently under formal protection and active management/regulation is minimal.

“Six IBAs are proposed protected areas, embracing the majority of the country's remnant primary rainforest and significant portions of the ranges of endemic species.”

Five of the country's IBA have been documented for the Grenadines. They include three entire islands that are significant for their congregatory waterbirds and seabirds and which are formally designated as protected areas. However, they all variously suffer from poaching of seabird eggs, illegal burning of vegetation or disturbance, and law enforcement is essentially non-existent. There is very little information related to the seabird populations on these (and indeed other Grenadines islands). Estimates have derived from fishermen and other boat operators (some involved in the annual poaching of eggs)

Figure 1. Location of Important Bird Areas in St Vincent and the Grenadines



and thus require verification before monitoring can start. Mustique Island IBA (VC013) with its Lagoon wetland, and Ashton Wetland IBA (VC015)—both in the Grenadines—are the country's largest wetlands and together represent 80% of the nation's wetland habitat. As with the seabirds, very little has been recorded concerning species presence and abundance at these or other wetlands in the country.

Table 1. Important Bird Areas in St Vincent and the Grenadines

IBA code	IBA name	Adm unit	Area (ha)	A1				A2	A3	A4			
				CR	EN	VU	NT			A4i	A4ii	A4iii	A4iv
VC001	La Soufrière National Park	Mainland St Vincent	4,990	1	1			X					
VC002	Richmond Forest Reserve	Mainland St Vincent	3,020	1	1			X					
VC003	Mount Pleasant Forest Reserve	Mainland St Vincent	1,185	1	1			X					
VC004	Cumberland Forest Reserve	Mainland St Vincent	1,020	1	1			X					
VC005	Colonarie Forest Reserve	Mainland St Vincent	1,590	1	1			X					
VC006	Dalaway Forest Reserve	Mainland St Vincent	576	1	1			X					
VC007	Kingstown Forest Reserve	Mainland St Vincent	835	1	1			X					
VC008	Campden Park Forest Reserve	Mainland St Vincent	15					X					
VC009	Botanic Gardens Natural Landmark	Mainland St Vincent	18					X					
VC010	King's Hill Forest Reserve	Mainland St Vincent	41					X					
VC011	Battowia Island	The Grenadines	750						X		X		
VC012	All Awash Island	The Grenadines	365							X			
VC013	Mustique Island	The Grenadines	2,470					X					
VC014	Petit Canouan	The Grenadines	420						X			X	
VC015	Ashton Wetland	The Grenadines	605					X					

For information on trigger species at each IBA, see individual site accounts at BirdLife's Data Zone: www.birdlife.org/datazone/sites/

Opportunities

Given the lack of information on waterbird and seabird populations, there is a clear and urgent need for surveys of wetlands and seabird colonies to establish a baseline against which to monitor and from which additional IBAs could possibly be described.

With regard to landbirds, the existing parrot monitoring program (implemented by Forestry Department) could be usefully expanded to include field assessments (surveys and subsequent monitoring) for Whistling Warbler (*Catharopeza bishopi*) and potentially the seabird populations. All monitoring results should be used to inform the annual assessment of state, pressure and response variables at each of the country's IBAs to provide an objective status assessment and highlight management interventions that might be required to maintain these internationally important biodiversity sites.

Further information

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Acknowledgements

The author would like to thank Adrian Bailey (Forestry Department), Amos Glasgow (Forestry Department), Andrew Wilson (National Parks Unit), AvianEyes Birding Group, Carlton Thomas (Forestry Department), Cynthia Robertson (Surveys Department), Cornelius Richards (Forestry Department), Darnley Hazell (The Mustique Company), Edward Bess (Bequia), Father Mark Da Silva (Mayreau), Fitzroy Springer (Forestry Department), Kyron Bynoe (Bequia), Lennox Quammie (The Mustique Company), Matthew Harvey (Union Island Environmental Movement), Orton King (Old Hegg Turtle Sanctuary, Bequia), Peter Ernst (The Mustique Company), and Rudolph Raguette (retired fisherman/ current tour operator, Mustique), for their contributions to this chapter and to Sam Williams for kindly providing additional photographs.



Battowia Island (VC011), one of a number of seabird colonies in urgent need of surveys and monitoring.
 Photo: Lystra Culzac-Wilson

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