

US VIRGIN ISLANDS

LAND AREA **353 km²** ALTITUDE **0–477 m**
HUMAN POPULATION **106,000** CAPITAL **Charlotte Amalie**
IMPORTANT BIRD AREAS **9, totalling 62 km²**
IMPORTANT BIRD AREA PROTECTION **90%**
BIRD SPECIES **210**
THREATENED BIRDS **4** RESTRICTED-RANGE BIRDS **7**



JIM CORVEN (BRISTOL COMMUNITY COLLEGE)



Great Pond IBA on St Croix.
(PHOTO: LISA D. YNTEMA)

INTRODUCTION

The US Virgin Islands (USVI), an organised, unincorporated United States territory, are at the eastern end of the Greater Antillean chain of islands in the northern Caribbean Sea, and comprise three major islands and more than 50 offshore cays. As an archipelago, the Virgin Islands are politically divided between USVI (the south-western group of islands) and the British Virgin Islands (which stretch out to the north-east). However, St Croix (the largest of the three main islands at 217 km²) lies about 65 km to the south of the rest of the Virgin Islands and c.100 km south-east of mainland Puerto Rico. The two northern islands of St Thomas (74 km², and c.60 km east of mainland Puerto Rico) and St John (50 km²) are very hilly (high points of 477 m and 387 m respectively) with limited flat areas. St Croix is a much flatter and drier island, with fewer bays and offshore cays. Offshore cays collectively make up c.3% of the territory's area (12 km²).

The USVI climate is categorised as subtropical or dry tropical. Average annual rainfall is 750 mm in coastal areas and up to 1,400 mm at higher elevations. Annual rainfall patterns are erratic, but on average, peak rainfall periods are September–December with a brief wet “season” in May or June. The dry season is January–April. The resultant vegetation on the islands

and cays is primarily dry forest, including closed-canopy forest, woodland and shrubland. Subtropical moist forest (with a continuous canopy and an abundant herbaceous understorey) is found in the uplands (where annual rainfall is above 1,200 mm), along drainage ghaunts or streams and in some coastal basin areas (accounting for c.10–15% of the land area). USVI also supports grasslands, a variety of wetlands, and a full range of coastal zone habitats. However, all have been subject to human disturbance or development as well as natural effects of tropical storms. From the times of pre-ceramic aboriginal settlement to the present day, these ecosystems have been in a constant state of regeneration and succession. Virtually no primary forest exists on the islands. It has been replaced with secondary “new forest” that has regenerated following the cessation of plantation agriculture. Wetland habitats include salt ponds, salt flats, mangrove wetlands (the only legally protected habitat in USVI), mixed swamp, and freshwater ponds (all of which are man-made for livestock or landscaping). Despite their extremely high value to both humans and wildlife, many of the natural wetlands have been destroyed or lost to development.

Conservation

There are two primary pieces of legislation that apply to the protection of wildlife in USVI: the Virgin Islands Indigenous

and Endangered Species Act (1990), and the federal US Endangered Species Act (1972) under which Brown Pelican *Pelecanus occidentalis*, Piping Plover *Charadrius melodus* and Roseate Tern *Sterna dougallii* are listed. A proposed modification of the territorial legislation (VI Endangered and Indigenous Species Act), with lists of USVI species considered under various categories of threat, is presented in the “Comprehensive Wildlife Conservation Strategy”. The Division of Fish and Wildlife (DFW) is the key public agency for research and monitoring of birds and habitats in the USVI. They have directed or collaborated in extensive studies on all the islands that have documented the status of seabirds and, to a lesser extent other species. Working with US Dept. of Agriculture, DFW has undertaken eradication of rats and goats from important seabird breeding colonies on DFW-managed cays. They are also looking at exotic plant management with the National Park Service (NPS), and collaborate with US Coast Guard, US Fish and Wildlife Service (USFWS), US Geological Survey, The Nature Conservancy and others to implement their work. The NPS is responsible for all land and marine areas within the St John Park which it monitors regularly and within which it has completed numerous biological inventories. The University of the Virgin Islands (UVI) provides local logistics for a number of offshore projects, plus GIS and data management expertise, and technical advice. The author has also established landbird surveys based on numerous point counts. With support from Cornell Lab of Ornithology, a public website (www.ebird.org/usvi) has been made available for researchers and birders to submit observations and retrieve data regarding birds of the USVI. Other conservation and research initiatives on the islands include work by the Island Resources Foundation (IRF); field station facilities managed by the Clean Islands International at the Virgin Islands Environmental Resource Station; Christmas Bird Counts and Breeding Bird Surveys coordinated by the Audubon Society of St John and by unaffiliated individuals on St Croix; educational birding trips (for school groups and general

public) sponsored by the Audubon Club of St Thomas and the St Croix Environmental Association (SEA); and numerous other conservation and awareness activities conducted by SEA, USFWS, the St Croix East End Marine Park and the Environmental Association of St Thomas.

Although the only wildlife habitat that is legally protected in the USVI is mangrove woodland, there are numerous protected areas provided by both territorial and federal governments, and private organisations including The Nature Conservancy, Island Resources Foundation and SEA. All federally owned cays are protected within the Virgin Islands National Park, Hassel Island National Monument, Buck Island National Monument, or as National Wildlife Refuges. The territorial government has designated Flat Cay, Little Flat Cay, Saba Island, and Turtledove Cay as wildlife reserves. More recently, legislation has been drafted that would result in all 33 cays owned by the territorial government being designated as wildlife sanctuaries. The 18 privately-owned cays are not protected and are therefore vulnerable to development and disturbance. However, USVI’s small islands or cays are considered major seabird nesting habitat because of their natural isolation from land predators and (mostly) human disturbance. Projects have been implemented to eliminate rats (*Rattus* spp.), invasive plants, and goats from a number of these islands, benefiting not only the seabirds but also the sea-turtles that nest on the beaches of several cays, and other reptiles such as the globally threatened St Croix ground lizard *Ameiva polops* and the endemic Virgin Islands tree boa *Epicrates monensis granti*.

The islands’ human population is growing and has caused the extensive loss and degradation of natural habitats, most severely on densely populated St Thomas, but with other islands suffering too. For example, Krause Lagoon—once the largest (260 ha) and most important mangrove wetland on the south side of St Croix—was destroyed in the 1960s to make way for industrial expansion. Industrial complexes and residential and commercial development are destroying and fragmenting native forest. Residential development, hotels, resorts, and marinas

Brown Pelicans are listed under the Federal Endangered Species Act.
(PHOTO: CAROL CRAMER-BURKE/ST CROIX ENVIRONMENTAL ASSOCIATION)



have been constructed on coastal wetlands, and marine recreational activities have damaged vital mangroves, coral reefs, and sea-grass beds. Human development has increased air and water pollution, and encouraged the introduction of exotic plants (for landscaping) and animal pests (especially domestic cats, dogs, and chickens that roam or become feral). Many domestic septic systems are not maintained or do not function and contaminate bays with sewage. This human-induced destruction and fragmentation has left ecosystems less able to absorb natural threats such as hurricanes (e.g. Hugo in 1989 and Marilyn 1995) and tropical storms. With rapid changes taking place to the natural environment there is a clear need for further habitat protection, increasing the level of environmental awareness (at government and public levels), monitoring the populations of key bird species, enhancing institutional resources and capacity, identifying critical conservation areas (not yet covered by the IBA network), and implementing conservation actions such as invasive species eradications and species reintroductions.



Young White-crowned Pigeons—significant numbers breed at Great Pond IBA, but the territory’s population is unknown. (PHOTO: CLAUDIA C. LOMBARD/USFWS)

Birds

Of more than 210 species of birds recorded from USVI just 60 are resident breeding species and over 130 are migrants of which most are Nearctic breeders. Of the c.60 Nearctic–Neotropical landbird migrants recorded from the islands, 30 are vagrants. About 20 species of warbler over-winter on the islands, primarily in the mature continuous forest on St John (especially the upper elevations of north-facing dry forests), the Bordeaux Mountain moist forests on St Thomas, and the forested north-west quarter of St Croix. Seven of the 27 Puerto Rico and the Virgin Islands EBA restricted-range birds still occur in the islands (see Table 1), none of which is endemic to USVI. However, a number of restricted-range species have been extirpated from USVI including Puerto Rican Screech-owl *Megascops nudiceps* (last recorded in the 1930s) and Antillean Mango *Anthracothorax dominicus* (last recorded during the 1960s), probably reflecting the loss of primary forest throughout the islands.

Viable populations of two globally threatened species occur in USVI, namely the Near Threatened Caribbean Coot *Fulica caribaea* and White-crowned Pigeon *Patagioenas leucocephala* (see Table 1). The population of *P. leucocephala* is unknown on USVI (although along with the Bridled Quail-dove *Geotrygon mystacea* it appears to have partially recovered in recent years). *Fulica caribaea* occurs, albeit in small numbers, as a breeding species on St Croix with non-breeding birds found on the other main islands. They are outnumbered almost 2:1 by American Coot *F. americana*, with which they form mixed colonies. Populations of both species have almost certainly declined due to habitat destruction, degradation and, in some areas, hunting. Other globally threatened species include the Near Threatened Piping Plover *Charadrius melodus* which is accidental on the islands. The Vulnerable West Indian Whistling-duck *Dendrocygna arborea* formerly bred on St Croix, but unregulated hunting and poaching have extirpated

Table 1. Key bird species at Important Bird Areas in the US Virgin Islands.

Key bird species	Criteria	National population	Criteria	US Virgin Islands IBAs										
				VI001	VI002	VI003	VI004	VI005	VI006	VI007	VI008	VI009		
Red-billed Tropicbird <i>Phaethon aethereus</i>	■	675–900	■											
Brown Pelican <i>Pelecanus occidentalis</i>	■	900–1,050	■								900	25–150		
Masked Booby <i>Sula dactylatra</i>	■	75–210	■											
Brown Booby <i>Sula leucogaster</i>	■	>3,000	■											
Caribbean Coot <i>Fulica caribaea</i>	NT ■	35–70	■											34
Laughing Gull <i>Larus atricilla</i>	■	6,000–9,000	■				2,400–3,000							250
Royal Tern <i>Sterna maxima</i>	■	195–480	■				60–1,200							28
Sandwich Tern <i>Sterna sandvicensis</i>	■	150–2,100	■				150–750							
Roseate Tern <i>Sterna dougallii</i>	■	2,320–6,775	■				60–1,800							
Least Tern <i>Sterna antillarum</i>	■	900–975	■									70–215	210–275	
Bridled Tern <i>Sterna anaethetus</i>	■	1,200–3,000	■				150–600							
Sooty Tern <i>Sterna fuscata</i>	■	>90,000	■				60,000–120,000							
Brown Noddy <i>Anous stolidus</i>	■	1,800–2,400	■				300–1,200							
White-crowned Pigeon <i>Patagioenas leucocephala</i>	NT ■		■											100–175
Bridled Quail-dove <i>Geotrygon mystacea</i>	■		■								✓			
Green-throated Carib <i>Eulampis holosericeus</i>	■		■		✓	✓		✓	✓	✓	✓	✓	✓	✓
Antillean Crested Hummingbird <i>Orthorhynchus cristatus</i>	■		■		✓	✓		✓	✓	✓	✓	✓	✓	✓
Caribbean Elaenia <i>Elaenia martinica</i>	■		■					✓		✓	✓	✓	✓	✓
Puerto Rican Flycatcher <i>Myiarchus antillarum</i>	■		■							✓	✓	✓	✓	✓
Pearly-eyed Thrasher <i>Margarops fuscatus</i>	■		■		✓	✓		✓	✓	✓	✓	✓	✓	✓
Lesser Antillean Bullfinch <i>Loxigilla noctis</i>	■		■						✓	✓	✓	✓	✓	✓

All population figures = numbers of individuals.
Threatened birds: Near Threatened ■. Restricted-range birds ■. Congregatory birds ■.



The US Virgin Islands support a breeding population of around 900 Least Terns. (PHOTO: LISA D. YNTEMA)

it from USVI. Two individuals seen on the island in October 2002 (possibly vagrants from Puerto Rico) were the first documented in USVI since 1941. A single sighting was reported on St Thomas in April 2006. St Croix has sufficient wetlands to support reintroduction of this species. The 2005 Comprehensive Wildlife Conservation Strategy for USVI lists current and proposed endangered species, many of which are the key species listed in Table 1.

USVI is important for its breeding seabirds, with 15 species known to breed, mostly on the offshore cays. However, these seabird populations are threatened by predation from introduced rats (*Rattus* spp.), trampling by goats, human disturbance and illegal eggging. Indirectly they are also being impacted by the depletion of fish stocks (from over fishing), bird entanglements in fishing lines, invasive plant species, and habitat loss. The Division of Fish and Wildlife (DFW) has eradicated rats from five cays (Saba Island, Dutchcap Cay, Congo Cay, Buck Island and Capella Island) and continues to monitor the presence of rats. DFW and USFWS have initiated a collaborative project to assess the status of Least

Tern *Sterna antillarum* populations on St Croix and produce management recommendations. A *Sterna antillarum* nesting colony in the national park on St John is monitored and protected by the park staff.

IMPORTANT BIRD AREAS

USVI's nine IBAs—the territory's international priority sites for bird conservation—cover 62 km² (including marine areas). The majority (seven) of USVI's IBAs are protected under various designations. However, this protection does not seem to have afforded the sites immunity from a wide range of threats (described under each of the IBA profiles below) that still impinge on their long-term integrity. Increased enforcement of existing legislation appears to be necessary if the populations of birds at these IBAs (that make the sites internationally important) are to thrive.

The IBAs have been identified on the basis of 21 key bird species (listed in Table 1) that variously meet the IBA criteria. These 21 species include two globally threatened birds, all seven extant restricted-range species, and 12 congregatory seabirds and waterbirds. Only St John IBA (VI007) embraces populations of all the restricted-range species, Bridled Quail-dove *Geotrygon mystacea* and Puerto Rican Flycatcher *Myiarchus antillarum* not being found in any other IBA in the islands. The globally threatened species are only found in criteria-triggering populations in one IBA each—namely Southgate and Green Cay IBA (VI008) for the Caribbean Coot *Fulica caribaea*, and Great Pond IBA (VI009) for the White-crowned Pigeon *Patagioenas leucocephala*. With further information (e.g. concerning the numbers of breeding *P. leucocephala* on Ruth Island, St Croix) additional IBAs for these species may be identified. Five of the IBAs have been identified on the basis of their globally and regionally significant seabird and waterbird populations. However, other IBAs such as Magens Bay (VI005) support unknown (but seemingly large) numbers of seabirds. With further survey work these sites may prove to qualify as IBAs for their seabird and waterbird populations as well.

Southgate Pond IBA in St Croix, important for a range of congregatory waterbirds. (PHOTO: LISA D. YNTEMA)





Figure 1. Location of Important Bird Areas in the US Virgin Islands.

The existing monitoring programs for seabirds and some other species could usefully be expanded to fill population status data gaps for key species (and any additional birds on the USVI Endangered species list) at IBAs, and then monitor their status. Monitoring results should be used to inform the annual assessment of state, pressure and response variables at each of the territory'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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VI001 North-west Cays		Wildlife Sanctuary
COORDINATES	18°22'N 65°02'W	
ADMIN REGION	St Thomas	
AREA	1,185 ha	
ALTITUDE	0 m	
HABITAT	Rocky cliffs, coast, shrubland, dry woodland	
		
		THREATENED BIRDS <input type="checkbox"/>
		RESTRICTED-RANGE BIRDS <input type="checkbox"/>
		BIOME-RESTRICTED BIRDS <input type="checkbox"/>
		CONGREGATORY BIRDS <input checked="" type="checkbox"/>

Site description

North-west Cays IBA comprises Cockroach, Sula and Dutchcap Cays (totalling 22 ha) off the north-west coast of St Thomas. Cockroach and Sula are located c.10 km off the north-west coast, while Dutchcap Cay is closer to the main island, c.4 km off Botany Point, the westernmost end of St Thomas. There are steep cliffs on all sides of the islands except the eastern end of Cockroach where a flat shield slopes into the sea, leaving smaller Sula Cay separated by a large crevice. Dutchcap is dome-shaped with steep cliffs on the north and east faces. There are no sandy beaches or coastal plains on any of the cays, and no permanent water sources. Offshore from the cays are modest-sized coral reefs.

Birds

This IBA is important for seabirds and waterbirds. More than 100 pairs of Red-billed Tropicbird *Phaethon aethereus* breed in this IBA, with the population on Cockroach Cay being the largest in the US Virgin Islands. Breeding populations of Masked Booby *Sula dactylatra*, Brown Booby *S. leucogaster*, and Brown Pelican *Pelecanus occidentalis* are regionally important. Other seabirds breed on the islands and Dutchcap is the only nesting site for Red-footed Booby *S. sula* in the territory.

Other biodiversity

Critically Endangered hawksbill *Eretmochelys imbricata* and Endangered green *Chelonia mydas* turtles are common in the waters around the cays. A number of non-threatened terrestrial reptiles occur.

Conservation

The North-west Cays are state owned and subject to management and protection by the Department of Planning and Natural Resources—Division of Fish and Wildlife (DPNR-DFW). Sanctuary signs on the important seabird cays are maintained to limit foot traffic into the seabird colonies and to inform the public of the conservation restrictions, but their effectiveness is questionable. Insufficient enforcement of environmental laws is impeding effective conservation management. Goats introduced to Dutchcap by fishermen were eradicated in 2003. Control of rats has also taken place on Dutchcap and post-control monitoring occurs annually. Nesting seabirds are monitored annually by DPNR-DFW. Routine patrols have been maintained at the important breeding sites when colonies are most vulnerable.

VI002 Perseverance Bay Lagoons		Unprotected
<p>COORDINATES 18°20'N 64°59'W ADMIN REGION St Thomas AREA 175 ha ALTITUDE 0–100 m HABITAT Beach, dunes, mangrove, moist forest, saline wetlands</p>	  <p style="font-size: small; text-align: center;">Antillean Crested Hummingbird</p>	<p style="text-align: right; font-size: small;">THREATENED BIRDS <input type="checkbox"/></p> <p style="text-align: right; font-weight: bold;">RESTRICTED-RANGE BIRDS 3</p> <p style="text-align: right; font-size: small;">BIOME-RESTRICTED BIRDS <input type="checkbox"/></p> <p style="text-align: right; font-size: small;">CONGREGATORY BIRDS <input type="checkbox"/></p>

Site description

Perseverance Bay Lagoons IBA is on the south-west coast of St Thomas. The bay is along the coast to the west of John Brewer’s Bay IBA (VI003). The site includes the sandy beach of Perseverance Bay, two conjoined and mangrove-fringed salt ponds/ lagoons (<2 ha each) about 50 m inland from the beach, and a flat moist-forest area extending c.100 m north (towards the main road) where it transitions into a steep slope of rocky terrain. Between the beach and ponds are sand dunes supporting littoral woodland. A narrow footpath from the road to the lagoons is maintained by local fishermen, birdwatchers, and beach visitors. A 2–3 m wide ghaat runs down the slope, coinciding with a footpath at several points. The derelict ruins of a sugar cane estate refinery lie within the IBA.

Birds

This IBA is important for range restricted species with three (of the seven) Puerto Rico and the Virgin Islands EBA restricted-range birds occurring, namely Green-throated Carib *Eulampis holosericeus*, Antillean Crested Hummingbird *Orthorhyncus cristatus* and Pearly-eyed Thrasher *Margarops fuscatus*. The forest areas provide good habitat for wintering

Neotropical migrant warblers (and many resident species) and the salt ponds support a wide range of waterbirds.

Other biodiversity

No threatened or endemic species are known to occur.

Conservation

Perseverance Bay is privately owned (except the beachfront area) and completely undeveloped at present, although subject to potential development by the owner(s). Clearance of vegetation for any purpose in the upper reaches of the IBA would subject the slopes and lagoons to severe erosion and sedimentation. Current use of the IBA is very limited because of difficult access, but the isolated beach and near-shore coral reefs makes for an attractive site for beach-goers and snorkelling. Maintenance and improvement of the mangrove forest and littoral woodland is vital to conserving the salt ponds. Browsing by the introduced white-tailed deer *Odocoileus virginianus* may be a threat for understorey vegetation, especially the mangroves nearest the ponds. The introduction of the invasive wild pineapple has had a profound impact on the area’s plant ecology and may have long-term consequences for the native vegetation.

VI003 John Brewer’s Bay		Unprotected
<p>COORDINATES 18°20'N 64°59'W ADMIN REGION St Thomas AREA 270 ha ALTITUDE 0–50 m HABITAT Coast, semi-deciduous forest, shrubland, wetland, mangrove</p>	  <p style="font-size: small; text-align: center;">Brown Pelican</p>	<p style="text-align: right; font-size: small;">THREATENED BIRDS <input type="checkbox"/></p> <p style="text-align: right; font-weight: bold;">RESTRICTED-RANGE BIRDS 3</p> <p style="text-align: right; font-size: small;">BIOME-RESTRICTED BIRDS <input type="checkbox"/></p> <p style="text-align: right; font-size: small;">CONGREGATORY BIRDS <input type="checkbox"/></p>

Site description

John Brewer’s Bay IBA is on the south-central coast of St Thomas from Black Rock Point to the western end of the Cyril King airport runway, and includes the University of the Virgin Islands (UVI) campus. It includes the sandy beach of Brewer’s Beach, Range Cay, Range Cay lagoon, the marsh along the north side of the airport, and the arid semi-deciduous forested catchment inland from the bay. The uplands extend inland and up the slopes above the UVI campus. The marsh by the airport drains into a shallow, tidal mangrove lagoon that is open to the bay. Perseverance Bay Lagoons IBA (VI002) is the next bay along the coast to the west.

Birds

This IBA is important for range restricted birds, with three (of the seven) Puerto Rico and the Virgin Islands EBA restricted-range species occurring. Unknown numbers of Brown Pelican *Pelecanus occidentalis*, Brown Booby *Sula leucogaster*, Magnificent Frigatebird *Fregata magnificens* and terns (*Sterna* spp.) nest on the offshore cays.

Other biodiversity

The Endangered green turtle *Chelonia mydas* is common in the bay which also supports coral reef and sea grass beds.

Conservation

John Brewer’s Bay IBA is state owned by UVI, and subject to both development and protection by the university. The waters of Brewer’s Bay are managed by the Department of Planning and Natural Resources with restricted boat moorings and anchorages. The beach is managed by UVI as a public beach. The narrow marsh above the lagoon has restricted access for reasons of airport security. Beach litter has been a chronic problem in the past. Extensive short-grass landscaping on the UVI campus results in soil erosion during heavy rains which then flows into Brewer’s Bay turning it brown with sediment and covers the remnants of the coral reef near Range Cay. Any further clearance of forest or construction on steep slopes will threaten the biodiversity of the bay through sedimentation. A municipal sewage outfall extending southward from near the airport may be impacting the bay which is also impacted by oil and chemical run-off from the airport. Invasive alien predators are present. The effects of tropical storms and hurricanes could be mitigated by the maintenance and improvement of the mangrove and beach woodlands—vital to stabilising and protecting this area.

VI004 Saba Island and Cays		Wildlife Sanctuary
<p>COORDINATES 18°18'N 65°00'W ADMIN REGION St Thomas AREA 505 ha ALTITUDE 0–80 m HABITAT Shrubland, beach, cliff, saline wetlands</p>	  <p>Sooty Tern</p>	<p>THREATENED BIRDS <input type="checkbox"/></p> <p>RESTRICTED-RANGE BIRDS <input type="checkbox"/></p> <p>BIOME-RESTRICTED BIRDS <input type="checkbox"/></p> <p>CONGREGATORY BIRDS <input checked="" type="checkbox"/></p>

Site description

Saba Island and Cays IBA is located off the south-central coast of St Thomas, c.2 km south-south-west of the western end of the Cyril King airport runway extension. The IBA includes Saba Island plus the smaller Turtledove Cay and Flat Cay (totalling c. 14 ha). The smaller cays are flat and low, while Saba Island rises to about 80 m. Saba has two salt ponds, a coral-rubble shoreline on its north side (with a protected, sandy cove in the north-west) and rocky cliffs on the south. A shallow sandbar projects north to Turtledove Cay. Offshore of both Saba and Flat Cay are modest sized coral reefs and sea-grass beds.

Birds

This IBA is important for breeding seabirds and waterbirds. Between 20,000 and 40,000 pairs of Sooty Tern *Sterna fuscata* nest on these islands, as do globally significant numbers of Roseate Tern *S. dougallii*, Bridled Tern *S. anaethetus* and Laughing Gull *Larus atricilla*. A number of other tern species breed, as do small numbers of Audubon’s Shearwater *Puffinus lherminieri*. The IBA supports a wide diversity of waterbirds.

Other biodiversity

Critically Endangered hawksbill *Eretmochelys imbricata* and Endangered green *Chelonia mydas* turtles are common in the waters around the cays. The locally threatened slipperyback skink *Mabuya sloanii* occurs, as do a number of reptiles endemic to the “Puerto Rican bank”.

Conservation

Saba Island and Cays IBA is state owned, designated as a wildlife sanctuary, and managed by the Department of Planning and Natural Resources—Division of Fish and Wildlife (DPNR-DFW). A nature trail was developed on Saba some years ago behind the beach near the west pond, but this has now been abandoned. A bird observation blind is located near the east pond shore and overlooks the pond and its environs. Entry beyond the beach and bird blind is by special-use permit only. Current use of the cays is very limited to diving/snorkelling the coral areas and occasional visitors to the beach. The municipal sewage outfall that extends southward from the vicinity of the airport releases waste that can flow towards the island, cays, and coral reefs. The threat of invasive alien plants and animals establishing themselves is ever present. The house mouse *Mus musculus* is known to be present and presumably predated seabird eggs and chicks.

VI005 Magens Bay		Area of Particular Concern
<p>COORDINATES 18°22'N 64°56'W ADMIN REGION St Thomas AREA 570 ha ALTITUDE 0–75 m HABITAT Beach, wetland, shrubland, mangrove, deciduous dry and moist forests</p>	  <p>Pearly-eyed Thrasher</p>	<p>THREATENED BIRDS <input type="checkbox"/></p> <p>RESTRICTED-RANGE BIRDS <input checked="" type="checkbox"/> 4</p> <p>BIOME-RESTRICTED BIRDS <input type="checkbox"/></p> <p>CONGREGATORY BIRDS <input type="checkbox"/></p>

Site description

Magens Bay IBA is on the north-central coast of St Thomas, opening to the Atlantic in a north-westerly direction. The site comprises a sandy beach, coastal wetland with mangroves, and woodlands further inland. The 129-ha Magens Bay Preserve is within the IBA and includes an arboretum, public beach and nature trail. The IBA is also home to some unique archaeological remains. Surrounding the area are various developments (including residential), a golf course and other recreational activities.

Birds

This IBA is important for range restricted birds, with four (of the seven) Puerto Rico and the Virgin Islands EBA restricted-range species occurring. Near Threatened White-crowned Pigeons *Patagioenas leucocephala* nest in the mangroves although numbers are unknown. Also, unknown numbers of Brown Pelican *Pelecanus occidentalis*, Brown Booby *Sula leucogaster*, Magnificent Frigatebird *Fregata magnificens* and terns (*Sterna* spp.) nest on the offshore cays.

Other biodiversity

Critically Endangered hawksbill *Eretmochelys imbricata* and Endangered green *Chelonia mydas* turtles have been seen in

Magens Bay. The Endangered yellow mottled coqui (or mute frog) *Eleutherodactylus lentus* is found in the woodlands. Notable plants include Egger’s cockspur *Erythrina eggersii* (Endangered), *Chrysophyllum pauciflorum* (Vulnerable), and the range restricted Bull’s foot orchid *Psychilis macconelliae*.

Conservation

Magens Bay Preserve (also designated an Area of Particular Concern) is co-owned and managed by The Nature Conservancy, the Magens Bay Authority and the government (which owns areas outside the preserve). Efforts have been made to restore the arboretum and archaeological sites in the preserve. However, current use and development is oriented towards public recreation rather than conservation or education. Landscaping along the beach has not considered removal of invasive or exotic species. Loss of soil stabilising vegetation on the steep slopes above the preserve to development has already resulted in damaging erosion and runoff into the bay. Mangroves are critical to the stabilisation and filtering of slope runoff and are under growing threat from invasive plants where disturbance and openings have occurred. Magens Bay is exposed to tropical storms that could damage the beach, mangroves, or forests. Maintenance and restoration of the natural vegetation is vital to stabilising and protecting this area long-term.

VI006 Mangrove Lagoon		 White-crowned Pigeon	Wildlife Sanctuary and Marine Preserve
<p>COORDINATES 18°19'N 64°52'W</p> <p>ADMIN REGION St Thomas</p> <p>AREA 225 ha</p> <p>ALTITUDE 0–3 m</p> <p>HABITAT Mangrove, shrubland, rocky coast, cays</p>			<p>THREATENED BIRDS <input type="checkbox"/></p> <p>RESTRICTED-RANGE BIRDS <input checked="" type="checkbox"/> 4</p> <p>BIOME-RESTRICTED BIRDS <input type="checkbox"/></p> <p>CONGREGATORY BIRDS <input type="checkbox"/></p>

Site description

Mangrove Lagoon IBA is on the south-eastern coast of St Thomas. It embraces several mangrove cays such as Bovoni Cay, Patricia Cay and Cas Cay and the lagoons (bays) around them. The cays are surrounded by 1–2 m deep lagoons that open to the sea through several channels. The St Thomas shoreline to this IBA starts in the south with volcanic cliffs and then extends into a flat mangrove-lined area which is broken by marinas with docks and moorings, and a major landfill (dump) at Bovoni along the north-west shoreline. Turpentine Run (an intermittent stream) flows into the lagoon next to a horse race track. The cays are rocky and sparsely vegetated with brush, sea grape, manchineel and organ pipe cactus.

Birds

This IBA is important for EBA species, with four (of the seven) Puerto Rico and the Virgin Islands EBA restricted-range birds occurring, namely Green-throated Carib *Eulampis holosericeus*, Antillean Crested Hummingbird *Orthorhyncus cristatus*, Pearly-eyed Thrasher *Margarops fuscatus* and Lesser Antillean Bullfinch *Loxigilla noctis*. Between 20 and 30 Near Threatened White-crowned Pigeons *Patagioenas leucocephala* nests throughout mangroves. A range of waterbird species occurs.

Other biodiversity

No endemic or threatened species are known to occur although the marine life in the surrounding waters is diverse.

Conservation

The Mangrove Lagoon and Cas Cay Wildlife Sanctuary and Marine Preserve protect this (primarily) state-owned IBA. Boat moorings are restricted, and although access to the lagoons is open, it is limited to visitors with boats and kayaks. Turpentine Run discharges its contaminated (with variable levels of heavy metals, raw sewage, and pathological bacteria) waters into the lagoon. The Bovoni dump—the largest dump on St Thomas may also leak contaminants into the lagoon. However, an advanced sewage treatment plant at Bovoni appears to have significantly reduced the issue of human sewage discharge into coastal waters. The marina contains numerous medium to large yachts, but no provision for the sewage and bilge wastes that are pumped from the boats into the lagoon. Informal monitoring of the mangroves and birds has been conducted by the tour guides of the eco-tour company located between the mouth of Turpentine Run and the marinas.

VI007 St John		 Bridled Quail-dove	National Park/Nature Preserve
<p>COORDINATES 18°20'N 64°45'W</p> <p>ADMIN REGION St John</p> <p>AREA 2,978 ha</p> <p>ALTITUDE 0–387 m</p> <p>HABITAT Wetland, coast, mangrove, woodland, shrubland, forest</p>			<p>THREATENED BIRDS <input type="checkbox"/></p> <p>RESTRICTED-RANGE BIRDS <input checked="" type="checkbox"/> 7</p> <p>BIOME-RESTRICTED BIRDS <input type="checkbox"/></p> <p>CONGREGATORY BIRDS <input checked="" type="checkbox"/></p>

Site description

St John is the smallest of the US Virgin Islands, over half of which is designated as a national park. The island has many freshwater and salt ponds, mangrove woodlands, coral reefs, rocky and sandy beaches and upland areas that support (mostly second-growth) moist, semi-evergreen forests, dry deciduous forests, thorn woodlands, and coastal scrublands. There are also areas of small agricultural plots and pasture lands, and a number of small towns. Almost the entire island was clear-cut to make way for sugarcane production during the colonial era.

Birds

This IBA is important for range restricted species and waterbirds. All seven Puerto Rico and the Virgin Islands EBA restricted-range birds occur in this IBA. A regionally important population of up to 300 pairs of Brown Pelican *Pelecanus occidentalis* nest. A wide range of seabirds nest on the offshore cays although numbers are not known. Similarly, the Near Threatened White-crowned Pigeon *Patagioenas leucocephala* nests in St John's mangroves and forest but numbers are not known.

Other biodiversity

Critically Endangered hawksbill *Eretmochelys imbricata* and Endangered green turtles *Chelonia mydas* may nest on St John's

beaches. The Virgin Islands tree boa *Epicrates monensis granti* is an endemic, threatened subspecies. Threatened plants include the Critically Endangered Woodbury's machaonia *Machaonia woodburyana*, and the Endangered Eggers' cockspur *Erythrina eggersii*, St Thomas lidflower *Calyptanthus thomasi* and St Thomas prickly-ash *Zanthoxylum thomasi*.

Conservation

St John IBA is a mix of private and state ownership. The Virgin Islands National Park covers 2,835 ha (with the 168-ha Maho Bay Estate to be added when funds are available) and is managed by the US National Park Service. The Nature Conservancy owns and manages the 9-ha Coral Bay Preserve, and the Island Resources Foundation has the 17-ha Nancy Spire Nature Preserve. Current land-use and development outside the parks is oriented towards tourism, public recreation, and resort development. Development has been intense and continues to threaten valuable habitats. Introduced invasive alien plants, insects, fungi etc. are proving significant problems for conservationists. Introduced mammals are likewise impacting the native flora and fauna. Erosion and sedimentation is a continuing problem that demonstrates the critical need for maintenance and increased restoration of the mangrove wetlands, coral reefs, and beach-area vegetation.

VI008 Southgate and Green Cay		Coastal Reserve/National Wildlife Refuge/Area of Particular Concern	
<p>COORDINATES 17°46'N 64°40'W ADMIN REGION St Croix AREA 245 ha ALTITUDE 0–21 m HABITAT Wetland, cliffs, beach, deciduous woodland</p>	  <p>Least Tern</p>	<p>THREATENED BIRDS 1</p> <p>RESTRICTED-RANGE BIRDS 4</p> <p>BIOME-RESTRICTED BIRDS 0</p> <p>CONGREGATORY BIRDS <input checked="" type="checkbox"/></p>	

Site description

Southgate and Green Cay IBA is in north-east St Croix. Southgate is on the coast, and Green Cay lies about 400 m off the coast from Southgate. Southgate Coastal Reserve (41 ha) encompasses a salt pond and associated wetlands, littoral deciduous woodland along a beach berm, and upland grassland. A man-made causeway contains Southgate Pond on the western side and a beach berm on its northern side separates it from the sea. Southgate is bordered to the west by Green Cay Marina (and an adjacent gated community and Tamarind Reef Hotel), to the east by Chenay Bay Beach Resort, and to the south by Route 83. Green Cay is an uninhabited 6-ha island, volcanic in origin, saddle shaped (rising to 21 m in the south) and mostly surrounded by steep cliffs.

Birds

This IBA is significant for supporting up to 34 Near Threatened Caribbean Coot *Fulica caribaea*, and regionally important breeding populations of Brown Pelican *Pelecanus occidentalis* and Least Tern *Sterna antillarum*. In 2003, 357 pairs of *S. antillarum* were breeding but the nests were decimated by feral dogs. Significant numbers of *Pelecanus occidentalis*, Laughing Gull *Larus atricilla*, *S. antillarum* and Royal Tern *S. maxima* congregate at Southgate Pond. Four (of the seven) Puerto Rico and the Virgin Islands EBA restricted-range birds occur at this IBA.

Other biodiversity

The largest known population of the Critically Endangered St Croix ground lizard *Ameiva polops*—extirpated from St Croix—persists on Green Cay. In 2006, probable nests of the Critically Endangered hawksbill *Eretmochelys imbricata* (42 nests), Critically Endangered leatherback turtle *Dermochelys coriacea* (10) and Endangered green turtles *Chelonia mydas* (61) were documented from Southgate Coastal Reserve. Hawksbill and green turtles also nest on Green Cay.

Conservation

This IBA is a mix of private and federal ownership. Southgate Coastal Reserve was established by the St Croix Environmental Association which is waiting for a permit to develop visitation facilities in the reserve. Green Cay National Wildlife Refuge was established to protect the St Croix ground lizard *Ameiva polops* and important bird nesting habitat— it is closed to the public. The IBA is also variously designated as part of the Caribbean Barrier Resource System, an Area of Particular Concern, and is within and/or adjacent to the St Croix East End Marine Park. Green Cay is administered under the Caribbean Islands National Wildlife Refuge Complex. Invasive alien predators (including feral dogs, mongooses, rats and cats) are all impacting the birds in this IBA. Other threats are from human disturbance, invasive alien plant species, and hurricanes.

VI009 Great Pond		Area of Particular Concern	
<p>COORDINATES 17°43'N 64°39'W ADMIN REGION St Croix AREA 65 ha ALTITUDE 0–2.5 m HABITAT Saline wetland, mangroves, scrub</p>	  <p>White-crowned Pigeon</p>	<p>THREATENED BIRDS 1</p> <p>RESTRICTED-RANGE BIRDS 3</p> <p>BIOME-RESTRICTED BIRDS 0</p> <p>CONGREGATORY BIRDS <input checked="" type="checkbox"/></p>	

Site description

Great Pond IBA is a mangrove-fringed, saline lagoon situated on the south-eastern shore of St Croix. The IBA includes the pond and the adjoining, vegetated baymouth bar on its southern edge which separates the pond from Great Pond Bay. A narrow channel in the pond’s south-east corner connects it to Great Pond Bay. Pond levels (and area) fluctuate as a result of rainfall and tidal flow, which in turn results in a wide range of salinity levels. At low water levels, mudflats are exposed around much of the pond, particularly along the western border. Mudflats are surrounded on the west and north sides by gently sloping, fallow pastures of dry grassland with mixed thorny scrub.

Birds

This IBA is important for threatened birds, restricted-range birds and congregatory species. Fifty-five pairs of Near Threatened White-crowned Pigeons *Patagioenas leucocephala* have been recorded breeding in the mangroves, and three (of the seven) Puerto Rico and the Virgin Islands EBA restricted-range birds occur. A regionally important 134 pairs of Least Tern *Sterna antillarum* have bred at this IBA (although the numbers breeding and their success depends on seasonal and annual fluctuations in water levels), and more than 200 birds regularly congregate post-breeding (before migrating). As many

as 50 individuals winter and up to 10 pairs of Wilson’s Plover *Charadrius wilsonia* breed, making this the most important site for the species on St Croix.

Other biodiversity

Critically Endangered hawksbill *Eretmochelys imbricata* and Endangered green *Chelonia mydas* turtles have nested along the ocean side of the baymouth bar.

Conservation

Great Pond IBA is territorially owned, while the surrounding lands belong to Golden Resorts, LLLP. The pond is protected within an Area of Particular Concern, the boundaries of which extend to the east and west of the pond, and south out to sea. Great Pond is also included within the Caribbean Barrier Resource System and the St Croix East End Marine Park. Great Pond IBA is threatened by development pressures (e.g. the Golden Resort proposal for a mega-resort), compounded by the lack of an adequate and enforceable buffer zone. Human disturbance, illegal dumping and invasive alien predators also impact the birds and habitats. Nesting shorebirds and terns are susceptible to rainfall run-off after heavy rains (which can also cause erosion and siltation) and the mangroves have been impacted by hurricanes in the past.