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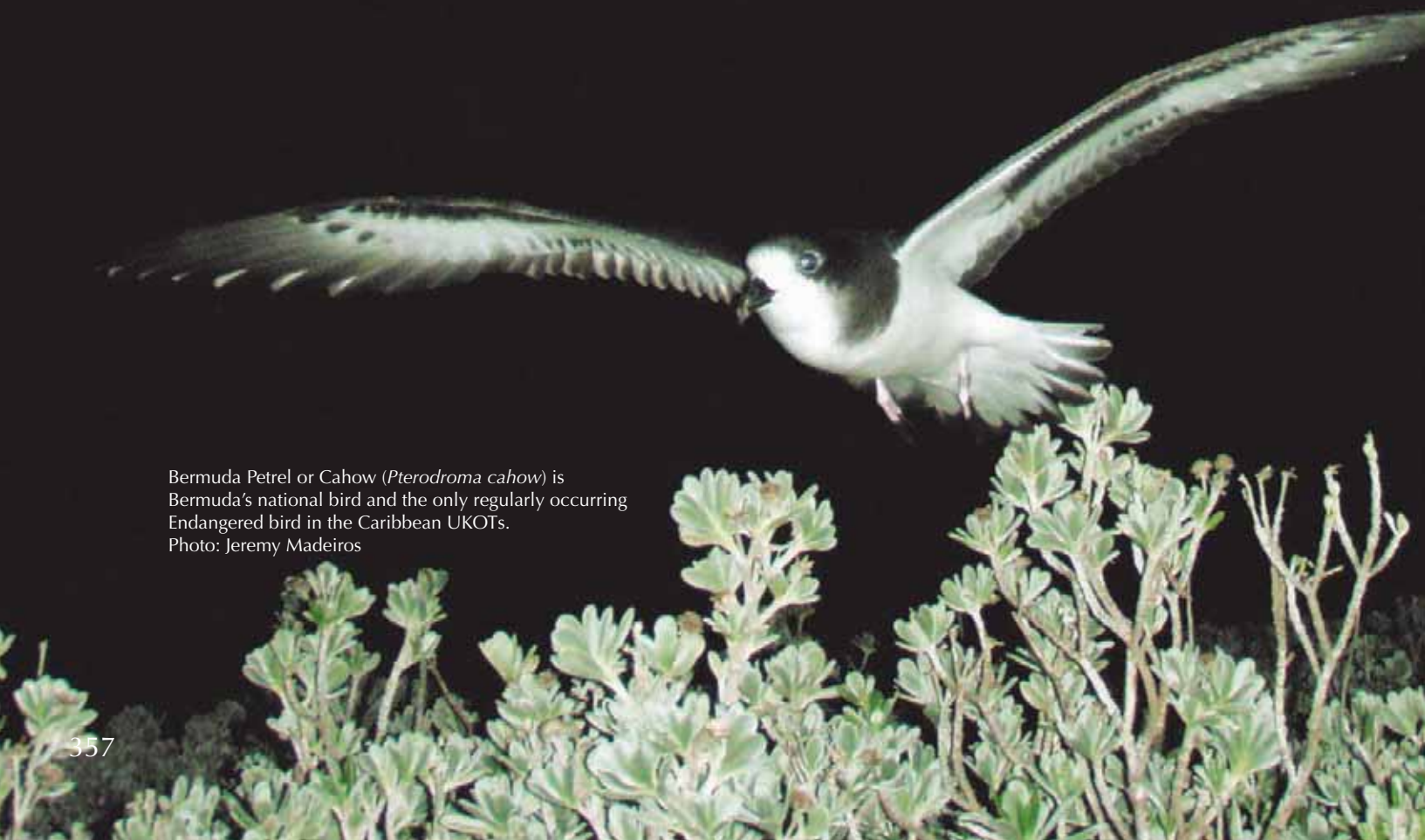
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Important Bird Areas AMERICAS

UNITED KINGDOM OVERSEAS TERRITORIES IN THE CARIBBEAN

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Bermuda Petrel or Cahow (*Pterodroma cahow*) is Bermuda's national bird and the only regularly occurring Endangered bird in the Caribbean UKOTs.
Photo: Jeremy Madeiros



Territory facts at a glance

No. of territories:	6
Total area:	1168 km ²
Total population:	176,359
Number of IBAs:	33
Total IBA area:	c.123,100 ha
IBA coverage of land area:	42%
Globally threatened birds:	4
Globally threatened birds in IBAs:	4
Country endemics:	3

General introduction

The United Kingdom Overseas Territories (UKOTs) in the Caribbean cover six groups of islands distributed over a wide area (Table 1, Figure 1, 2). The Cayman Islands comprise three low-lying islands: Grand Cayman (197 km²), Little Cayman (28 km²) and Cayman Brac (38 km²). These emergent limestone bluffs are situated along the submerged Cayman Ridge, which is continuous with the Sierra Maestra mountains of south-eastern Cuba. The islands lie to the south of Cuba and northwest of Jamaica. To the east of Cuba, and north of Hispaniola are the Turks and Caicos Islands (TCI), geologically a continuation of the Bahamas Islands chain. The islands are on two shallow (mostly less than 2 m deep) banks—the 5334 km² Caicos Bank and the 254 km² Turks Bank—with deep ocean between them.

The British Virgin Islands (BVI) lie at the eastern end of the Greater Antillean chain of islands, and comprise more than 60 islands, cays and rocks. As an archipelago, the Virgin Islands are politically divided between BVI (which stretch out to the north-east) and the United States Virgin Islands (USVI, the south-western group of islands), and are located on the Puerto Rican Bank. The archipelago once formed a continuous landmass with Puerto Rico and was isolated only in relatively recent geologic time. Further east, Anguilla is at the northernmost end of the Lesser Antilles, just 8 km north of the island of St Martin. It is an archipelago of 22 islands, with the main island (Anguilla) being c.26 km long, 5 km at its widest point, and covering c.91 km². Southeast of Anguilla, Montserrat is located just 40 km south-west of Antigua, between the islands of Nevis and Guadeloupe. The island is about 16 km long and 11 km wide, and its volcanic origins are reflected in an extremely rugged topography.

Finally, Bermuda is situated in the western North Atlantic, 917 km from Cape Hatteras, the nearest landfall in the USA. It is made up of a mini-archipelago of approximately 150 islands, of which the eight largest are joined by bridges or causeways. Bermuda is volcanic in origin and is the largest of three volcanic seamounts, which rise from mid-oceanic depths of over 3500 m. Over time, and due to ideal conditions for coral growth, limestone deposits built up over the eroded volcanic base such that the present visible islands are entirely formed of limestone.

Table 1. Summary information for UK Overseas Territories in the Caribbean

Territory	Area (km ²)	Population	Capital	Altitude (m)	No of IBAs	Total IBA area (ha)	Percentage of total land area
Anguilla	98	13,480	The Valley	0–65	7	5,256	13%
Bermuda	53	66,160	Hamilton	0–76	1	760	1.5%
British Virgin Islands	153	23,550	Road Town	0–521	3	5,319	11%
Cayman Islands	262	60,600	George Town	0–43	10	6,710	22%
Montserrat	102	4,819	Plymouth (Defunct Due To Volcanic Eruption)	0–914	3	1,645	16%
Turks and Caicos Islands	500	21,750	Cockburn Town, Grand Turk	0–49	9	103,421	61%

The UKOTs in the Caribbean all have separate constitutions, although the UK retains responsibility for defense, external affairs and internal security. Island groups are governed by a locally elected government, with a governor appointed by and representing HM the Queen. The exact relationship between the UK and territories is specific to each island group.

The number of inhabitants ranges from 4819 on Montserrat (a large proportion of the population had to emigrate after the eruption of the Soufriere Hills volcano) to over 60,000 in Cayman Islands and Bermuda (Table



The ruins of Plymouth, in the shadow of the Soufriere Hills volcano that has dominated Montserrat's recent history.
Photo: Rich Young/DWCT

1). The latter island has by far the highest population density of all the Caribbean UKOTs, and the wider Caribbean. Most islands have a large proportion of their population from the African Diaspora, with Irish descendents also present on Anguilla and Montserrat. Tourism greatly supplements the local population on nearly all islands, for example, over two million tourists visit the Cayman Islands each year.

Climate in the Caribbean UKOTs is generally subtropical to tropical, with Bermuda having greatest variations in temperature, with monthly averages ranging from 18 °C in February to 27 °C in August. Other islands are generally warm and dry, with rainfall generally increasing with altitude. Precipitation varies from 500 mm on Grand Turk, through approximately 1000 mm on Anguilla, BVI and Caicos islands, reaching a maximum of 2100 mm in the mountainous regions of Montserrat. BVI, Cayman Islands, Montserrat, TCI and Anguilla have their wettest periods in the second half of the year, generally coinciding with the hurricane season.

Interior vegetation types in Caribbean UKOTs include evergreen woodland, cactus scrub, dry woodland and shrubland. The latter two vegeta-

tion types dominate the karstic limestone comprising the interior of the Cayman Islands. Extensive hardwood forests were once present, but by the beginning of the twentieth century, most of the mature trees had been felled. Pine woodland occurs on TCI with extensive stands of the national tree, "Caicos pine" (*Pinus caribaea*), recently devastated by a pest scale insect introduced from North America, intermingled with other seasonally or temporally flooded habitats and tropical dry forest. Tropical forest dominates on Montserrat, ranging from dry deciduous forest in the lowlands, through semi-deciduous and evergreen wet forest in the hills, to montane elfin forest on the highest peaks, although all but a few small forest patches were apparently cleared during the plantation era. Wetland habitats include wet grassland, swamps, inland peat-marsh basins (on Bermuda) and freshwater ponds. Wetlands on Montserrat have largely disappeared as a result of the volcanic eruption. Coastal habitats include coral reefs, cliffs, shoreline and littoral woodland. Mangroves are present on Anguilla, Cayman Islands, BVI (Anegada), TCI and a small area on Montserrat. Intertidal creeks, lagoons, flats, salinas and marshes dominate on TCI, covering over half of the land area but undergoing rapid loss.

Conservation and protected area system



The first environmental legislation in the Caribbean UKOTs was issued in 1616 when the Governor of Bermuda issued a proclamation against "the spoyle and havocke of the cahows". Environmental legislation now exists at least in draft form in all territories. With respect to national park designation, laws have been brought into force in all territories apart from Cayman Islands and Montserrat where draft legislation has been prepared (in Cayman legislation has been pending since 2000). National protected areas (both terrestrial and marine) have been established in all but Cayman. Protected areas vary in size, number and coverage, for example, in Bermuda, parks and nature reserves cover up to 9% of land area. Enforcement is variable, with recent extensive damage by government-supported actions to protected areas in TCI.

Ratification of international environmental agreements, such as the Convention on Biological Diversity, Ramsar Convention on Wetlands and the Agreement on the Conservation of Albatrosses and Petrels (ACAP) remain responsibility of the UK government, and the ones in which each UKOT is included vary. However, all UKOTs

"The first environmental legislation in the Caribbean UKOTs was issued in 1616 against the spoyle and havocke of the cahows".

are signed up to an Environment Charter, a formal agreement with the UK government which lists the commitments of the respective parties to facilitate sound environmental management linked to these international agreements.

Major conservation organizations exist in all territories, responsible for park management and environmental protection to varying degrees. These include the Anguilla National Trust, Bermuda National Trust, Bermuda Audubon Society, British Virgin Islands National

Parks Trust, National Trust for the Cayman Islands (which owns land protecting 5.5% of the territory land area), Montserrat National Trust and the Turks and Caicos National Trust. These organizations work closely with ministry departments under environmental mandates in the territories.

The major threats to biodiversity in the Caribbean UKOTs are habitat loss and invasive alien species. Habitat loss in most cases was instigated in plantation eras and large proportions of these territories arrived at the 20th century with little original vegetation cover. However, other drivers, such as development for housing, tourism and rapid population growth threaten bird habitats in many islands. Natural processes, such as hurricanes, have also exacerbated human-driven habitat degradation. Invasive species are a major threat to island fauna and flora, and the UKOTs make no exception. Breeding and feeding dynamics for a range of species to have been affected by introduced species include the threatened Bermuda Petrel (*Pterodroma cahow*) and Montserrat Oriole (*Icterus oberi*).



Forest clearance on the edge of the Mastic Reserve IBA (KY002), Grand Cayman, shows the need for conservation zoning within the island's development plan. Photo: Kristan D. Godbeer/DoE

Ornithological importance

The number of bird species recorded in the Caribbean UKOTs ranges from 101 on Montserrat to 375 on Bermuda (Table 2), although the majority of species are Neotropical migrants in all territories. For example, up to 25 species of North American wood warbler regularly winter on Bermuda. Turks and Caicos Islands have the highest number of breeding species at 58. There are three country endemics, one of which is extinct (Table 2) and many more endemic subspecies, including 17 on Cayman Islands (one of which has recently been proposed as a separate species: Cuban (Taylor's) Bullfinch; *Melopyrrha nigra taylori*), two on TCI and one on Bermuda.

“Of the former three country endemics, one is now extinct”

Resident species in the UKOTs are covered by three Endemic Bird Areas (EBAs) and one secondary area. There are four extant species within the Cayman Islands Secondary Area (SA 014), identified on the basis of the extinct Grand Cayman Thrush (*Turdus ravidus*). Grand Cayman Thrush was last recorded in 1938. Habitat loss and storms may have contributed to its extinction, though the exact cause of its disappearance remains unknown. Jamaican Oriole (*Icterus leucopteryx*), also included in SA 014, is extirpated from the Cayman Islands and was last recorded in 1968. Four of the seven Bahamas Endemic Bird Area (EBA 026) restricted-range species occur on the Turks and Caicos Islands. A number of other species, characteristic of adjacent islands are also present (or have arrived as vagrants) on the islands,

including Cuban Crow (*Corvus nasicus*), the Endangered Blue-headed Quail-dove (*Starnoenas cyanocephala*), Giant Kingbird (*Tyrannus cubensis*), Green-tailed Warbler (*Microligea palustris*). Puerto Rico and Virgin Islands Endemic Bird Area (EBA 029) restricted-range species (of which there are 27) are represented by eight species on the British Virgin Islands. Another restricted-range species, Puerto Rican Screech-owl (*Megascops nudiceps*) has been considered extirpated from the territory. Whereas it was previously recorded with regularity, there are no reliable recent sightings although there have been reports of the characteristic calls and possible pellets both on Tortola and Guana Island. Twelve species, of 38 within the Lesser Antilles Endemic Bird Area (EBA 030), have been recorded on Montserrat (12 species) and Anguilla (four species). A number of other Lesser Antilles restricted-range birds have occurred on both islands, but are either rare vagrants or have no recent records. Bermuda is the only island not to be covered by an EBA.

There are records of 10 species of global conservation concern in the Caribbean UKOTs (Table 2), of which five are classified as globally threatened, including one Critically Endangered (Box 1), one Endangered (Box 2) and two Vulnerable: West Indian Whistling-duck (*Dendrocygna arborea*; breeding on Cayman Islands and Turks and Caicos) and Forest Thrush (*Cichlherminia lherminieri*). The latter species is relatively common in the Centre Hills (MS002) of Montserrat with numbers estimated to be in the thousands unlike its situation on Dominica, Guadeloupe and St Lucia. Only three of the six recorded Near Threatened species occur regularly on the islands. The Near Threatened Cuban Amazon (*Amazona leucocephala*) occurs as two endemic races on the Cayman Islands, “Cayman Parrot” (*A. l. caymanensis*) on Grand Cayman and “Brac Parrot” (*A. l. hesterna*) on Cayman Brac, their combined population is less than 2500 birds. There are three subspecies of the Near Threatened Vitelline Warbler (*Dendroica vitellina*); two on the Cayman Islands, where 97% of its population is thought to occur, and a third on a small area (<5 ha) on greater Swan Island (to Honduras).

The Turks and Caicos Islands support endemic subspecies of Greater Antillean Bullfinch (*Loxigilla violacea*) and Thick-billed Vireo (*Vireo crassirostris*). Photos: Mike Pienkowski



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Red-footed Booby
(*Sula sula*)
Photo: Allan Sander



Photo: Kristan D. Godbeer

Photo: Mark F. Orr

Near Threatened species regularly occurring in the Caribbean UKOTs include Cayman Parrot (*Amazona leucocephala*) and White-crowned Pigeon (*Patagioenas leucocephala*).

All the Caribbean UKOTs are important for breeding seabirds, with at least 15 breeding species on Anguilla and BVI, 13 on TCI, six on the Cayman Islands and three on Bermuda. There are over 160,000 nesting pairs of gulls and terns on TCI, including 54,000 pairs of Brown Noddy (*Anous stolidus*), 97,000 of Sooty Tern (*Sterna fuscata*), 6700 of Bridled Tern (*Sterna anaethetus*) and 1700 of Least Tern (*Sterna antillarum*), among others. Surveys of Anguilla and its outer islands from 1999 to 2007 found more than 100,000 nesting pairs of gulls and terns, including the region's largest population of Sooty Tern and over 2000 nesting pairs of boobies (*Sula* spp.), including 30% of the Caribbean population of Brown Booby (*Sula leucogaster*). Seabirds on Bermuda include the Endangered Bermuda Petrel or Cahow (Box 2), White-tailed Tropicbird (*Phaethon lepturus*) and Common Tern (*Sterna hirundo*), whose populations were drastically reduced by hurricane Fabian in 2003. The largest known colony of Red-footed Booby (*Sula sula*) in the insular Caribbean occurs in a protected coastal wetland on Little Cayman, estimated at 4800 pairs or approximately 20,000 birds in 1997, however, three hurricanes have since impacted the site and a new survey is proposed for 2009. Further studies are necessary on most islands to establish accurate population sizes for waterbirds and seabirds.

Table 2. Numbers of bird species (including threatened and endemic species) per territory in the Caribbean UKOTs¹

Country	No of species	CR	EN	VU	NT	Endemics
Anguilla	139			(1)	(3)	
Bermuda	375		1		(2)	1
British Virgin Islands	210				(3)	
Cayman Islands	222			1	3	1 ²
Montserrat	101	1		1	(1)	1
Turks and Caicos Islands	204		(2)	1	2+(1)	
Total nos. of species	-	1	1+(2)	2	3+(4)	3



Nonsuch Island coast (BM001). Photo: Andrew Dobson

Montserrat's endemic national bird

Box 1

The Montserrat Oriole (*Icterus oberi*), Montserrat's endemic national bird, was formerly found throughout the island's hill forests (at altitudes greater than c.150 m). However, c.60% of the forest it occupied (primarily the southern hills) was destroyed in the eruption of the Soufriere Hills volcano (1995–present). The main remaining population, in the Centre Hills (and in Roaches forest in the South Soufriere Hills), suffered a further decline of c.50% between 1997 and 2002. The population has been estimated at c.5000 individuals, equating to a breeding population of c.1000 pairs (based on breeding success and estimates of the number of immature individuals and floaters in the population). However, territory mapping work done in 2005 suggests a population of several hundred pairs, but certainly well under 1000. Durrell Wildlife Conservation Trust has a captive breeding program (in Jersey) to safeguard the species from the risk of extinction in the wild and to provide birds for reintroduction should that become necessary in the future.



Montserrat Oriole (*Icterus oberi*)
Photo: James Morgan/DWCT

The Centre Hills (MS002) support the island's largest remaining forest block.
Photo: Geoff Hilton/RSPB

Conservation efforts bring the Cahow back from the brink of extinction

Box 2

The endemic and Endangered Bermuda Petrel, or Cahow (*Pterodroma cahow*) is Bermuda's national bird. It was super-abundant before human settlement, but was nearly driven to extinction by earlier settlers. It was thought extinct for almost 300 years but was rediscovered breeding on the rocky islets in Castle Harbor in 1951. The population in 1960 was just 18 pairs, producing eight fledged chicks annually. In the 2007–2008 breeding season the population had reached a record high of 85 established nests (with an additional six nest burrows being investigated) with a total of 40 chicks successfully fledging. The birds nest on four rocky islets near Cooper's and Nonsuch Islands. A recovery program for Bermuda's national bird has been under way since 1951 and is managed by the Department of Conservation Services under the direction of the Terrestrial Conservation Officer. As part of this recovery program, (pre-fledging) birds have been translocated to artificial nest burrows on Nonsuch Island in order to establish a new breeding colony. Over five years, 101 chicks have successfully fledged from Nonsuch. Cahows spend the first 3–4 years of life out at sea, but the first Nonsuch Island fledglings prospected nest burrows on Nonsuch February–April 2008. In the spring of 2009 the first Cahow chick hatched on Nonsuch since about 1620. Nonsuch Island represents a more elevated and less vulnerable nesting island for the Cahows than the rocky islets that are frequently overwashed and eroded by hurricanes (compounded by sea-level rise). Nonsuch Island has the capacity to hold a significantly larger breeding population than the other islets.

Cahow chick being translocated to an artificial nest burrow on Nonsuch Island.
Photo: Andrew Dobson



IBA overview


Important Bird Areas in the Caribbean UKOTs seek to identify and protect a network of globally important sites which are critical for bird conservation, and for which the UK and its institutions hold a special responsibility. A total of 33 IBAs covering c.123,100 ha have been designated in the Caribbean UKOTs (Table 1, 3, Figure 1, 2). The total land area covered by the IBAs varies across the UKOTs, from about 2% in Bermuda to 61% in Turks and Caicos Islands (Table 1). Just over half (55%) of all IBAs do not have any form of legal protection and only 15% enjoy full protection throughout the whole of the IBA's area.

More than half (18) of the sites have been selected wholly or in part for species of global conservation concern. All five globally threatened species occurring in the Caribbean UKOTs are represented in at least one IBA (Table 3). Of the six Near Threatened species recorded for the

islands, only three occur in sufficient numbers to trigger IBA criteria. Twenty-four sites have been confirmed under criterion A2 corresponding to three Endemic Bird Areas and one secondary area, with a total of 19 restricted-range species. This represents all restricted-range species present on the islands in sufficient numbers to trigger IBA criteria (see Ornithological importance). Seventeen IBAs have been triggered by A4 criteria for 20 waterbirds or seabirds. There are 14 sites for A4i, and four for both A4ii and A4iii.

Anguilla's IBAs are focused on four of the larger offshore islands (Sombrero, Dog Island, Prickly Pear and Scrub Island), all of which support globally significant seabird colonies. Dog Island IBA (AI002), with 113,000 pairs of Sooty Tern (*Sterna fuscata*) and many other species of breeding seabird, is one of the largest seabird colonies in the

Table 3. Important Bird Areas in the United Kingdom Overseas Territories in the Caribbean

IBA code	IBA name	Adm unit	Area (ha)	A1				A2	A3	A4			
				CR	EN	VU	NT			A4i	A4ii	A4iii	A4iv
Anguilla													
AI001	Sombrero		618								X		
AI002	Dog Island		1,333							X	X	X	
AI003	Prickly Pear (East and West)		973							X			
AI004	Cove Pond		287					X					
AI005	Long Pond		182					X					
AI006	Grey Pond		191					X					
AI007	Scrub Island		1,672					X		X			
Bermuda													
BM001	Cooper's Island and Castle Islands		760	1									X
British Virgin Islands													
VG001	Great Tobago		1,695					X					X
VG002	Green Cay		425					X		X			
VG003	Anegada: Western salt ponds and coastal areas		3,199					X		X			
Cayman Islands													
KY001	Central Mangrove Wetland	Grand Cayman	3,554	1	2								X
KY002	Mastic Reserve	Grand Cayman	446		3		X						
KY003	Botanic Park and Salina Reserve	Grand Cayman	285	1	3		X						
KY004	Frank Sound Forest	Grand Cayman	224		2		X						
KY005	Franklin's Forest	Grand Cayman	112		3		X						
KY006	Eastern Dry Forest	Grand Cayman	216		2		X						
KY007	Booby Pond Nature Reserve	Little Cayman	137	1	2		X						X
KY008	Sparrowhawk Hill	Little Cayman	153		2		X						
KY009	Crown Wetlands	Little Cayman	1,110	1	1								X
KY010	Bluff Forest	Cayman Brac	473		3		X						
Montserrat													
MS001	Northern Forested Ghauts		498		1		X						
MS002	Centre Hills		1,112	1	1		X						
MS003	South Soufriere Hills		35	1	1		X						
Turks and Caicos Islands													
TC001	Gallery Forest at Wades Green and Teren Hill, North Caicos	North Caicos	226					X					
TC002	Fish Ponds and Crossing Place Trail, Middle Caicos	Middle Caicos	1,024		1		X						
TC003	North, Middle and East Caicos Ramsar Site	East Caicos, Middle Caicos, North Caicos	58,617		1		X			X			X
TC004	Middle Caicos Forest	Middle Caicos	1,374		1		X						
TC005	East Caicos and adjacent areas	East Caicos	30,440		1		X			X			
TC006	Caicos Bank Southern Cays	Caicos Bank	9,406							X			X
TC007	Grand Turk Salinas and Shores	Grand Turk	268							X			
TC008	Turks Bank Seabird Cays	Big Sandy Cay, East Cay, Long Cay, Penniston Cay	1,815							X			X
TC009	Salt Cay Creek and Salinas	Salt Cay	251				X			X			



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

Figure 1. Location of Important Bird Areas in the Cayman Islands, Bermuda and Turks and Caicos Islands

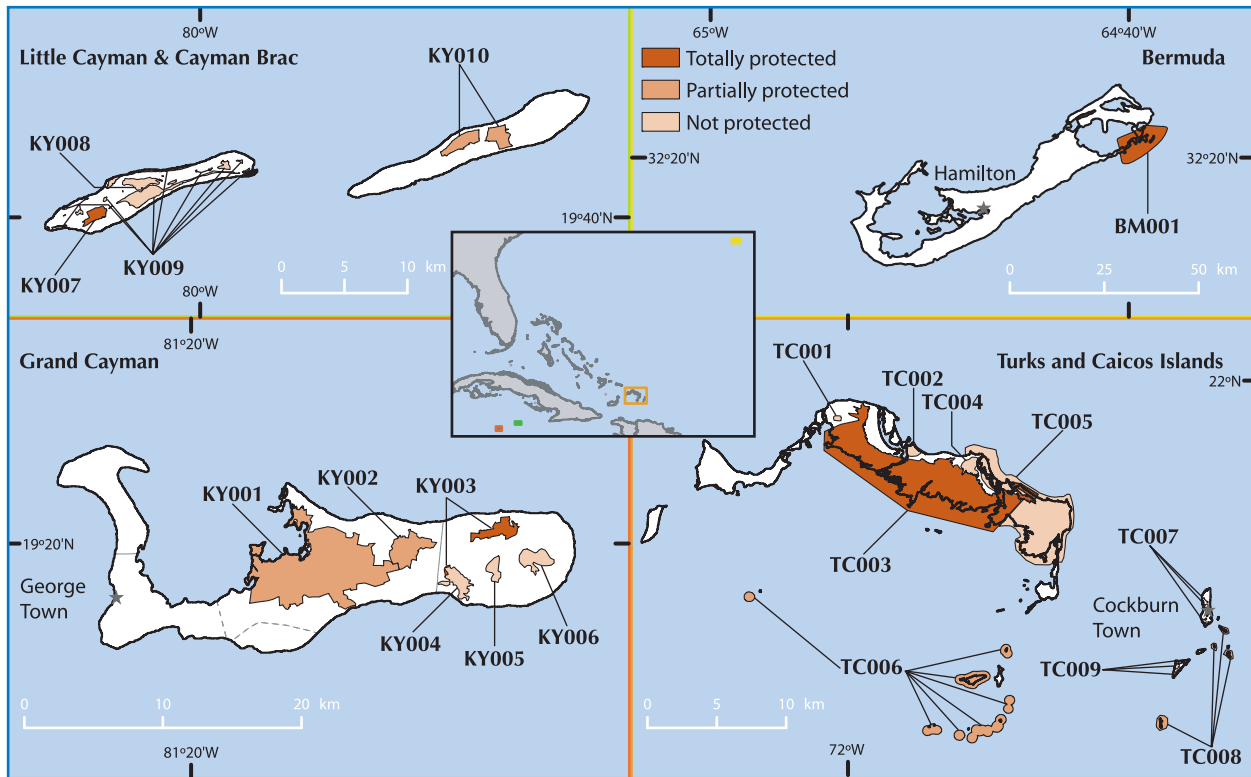
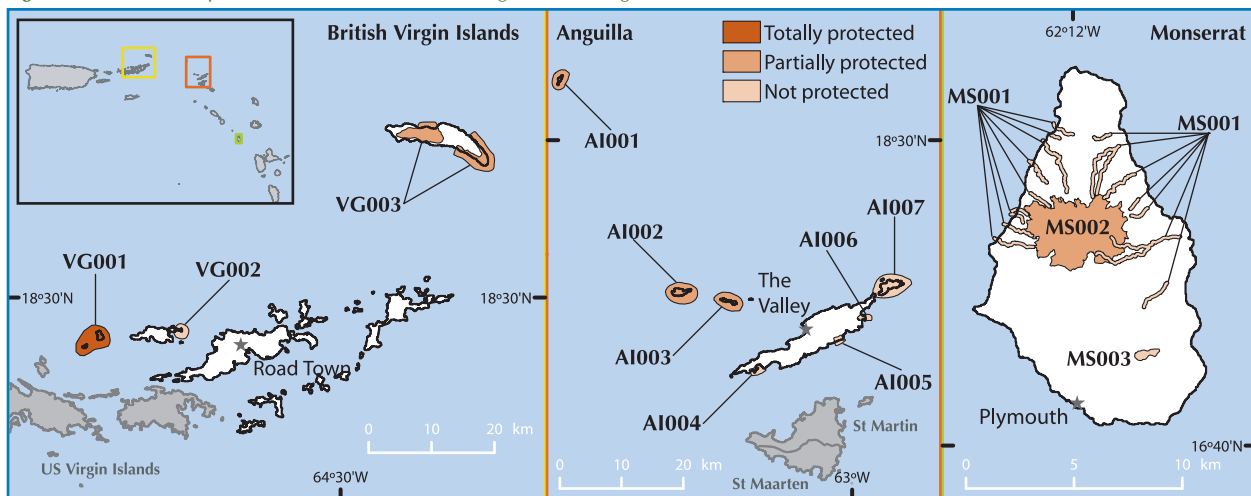


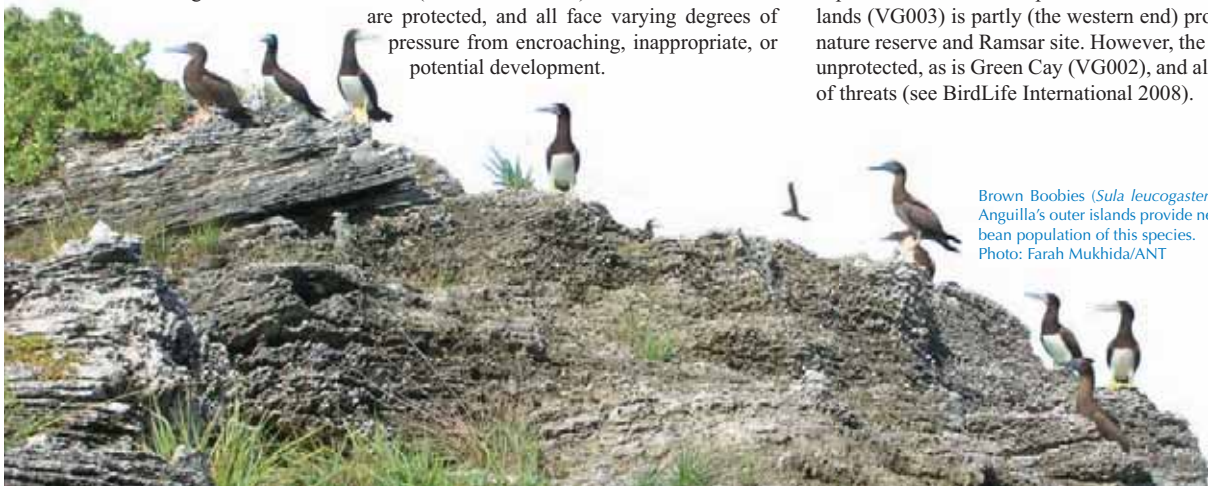
Figure 2. Location of Important Bird Areas in the British Virgin Islands, Anguilla and Montserrat



insular Caribbean. These seabirds are afforded little legal protection as Anguilla’s marine parks only cover aquatic (not terrestrial) areas, and Dog Island, Scrub (AI007), and Prickly Pear East (AI003) are privately owned. However, for any sort of development to occur on any of the cays, licenses and permission must technically be granted by the Government of Anguilla. The three IBAs on mainland Anguilla are all coastal ponds supporting a range of waterbirds, but particularly breeding colonies of Least Tern (*Sterna antillarum*). None of these IBAs are protected, and all face varying degrees of pressure from encroaching, inappropriate, or potential development.

On **Bermuda**, Cooper’s Island and Castle Islands (BM001) is the only IBA, covering 7.6 km² (including marine areas), and about 2% of the islands’ land area. With the recent protection afforded Cooper’s Island (Cooper’s Island National Park) almost all of Bermuda’s single IBA is protected to some extent.

Of the three IBAs in the **British Virgin Islands**, Great Tobago (VG001) is protected as a national park and a bird sanctuary, and Anegada wetlands (VG003) is partly (the western end) protected as an island-level nature reserve and Ramsar site. However, the eastern end wetlands are unprotected, as is Green Cay (VG002), and all three IBAs face a range of threats (see BirdLife International 2008).



Brown Boobies (*Sula leucogaster*) on Prickly Pear East (AI003). Anguilla’s outer islands provide nesting sites to 30% of the Caribbean population of this species. Photo: Farah Mukhida/ANT

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The three IBAs on Little Cayman in the **Cayman Islands** cover 50% of the island's area. These include Booby Pond Reserve (KY007)—a Ramsar site protecting the largest Red-footed Booby (*Sula sula*) colony in the insular Caribbean; the entire Crown Wetlands (KY009) which is important as breeding habitat for the Vulnerable West Indian Whistling-duck (*Dendrocygna arborea*); and dry forest at Sparrowhawk Hill (KY008) which supports the Near Threatened Vitelline Warbler (*Dendroica vitellina crawfordi*). The single IBA on Cayman Brac is an important breeding site for the Near Threatened “Brac Parrot” (*Amazona leucocephala hesterna*), which possibly merits full species status. It has the smallest population of any *Amazona* parrot and the most limited range at 38 km².

Six IBAs on Grand Cayman cover 20% of the island's area. Five sites hold the Near Threatened “Cayman Parrot” (*Amazona leucocephala caymanensis*) and include 80–85% of its forest breeding habitat. How-



Castle Harbour Islands (BM001), at the eastern end of Bermuda, part of Bermuda's only IBA. Photo: Andrew Dobson



Wetlands on eastern Anegada (VG003), important for a wide diversity of waterbirds. Photo: Andy McGowan

ever, only a small proportion of this habitat is protected. The Central Mangrove Wetland (KY001) supports the largest breeding population of West Indian Whistling-duck outside of Cuba and is important for “Cayman Parrot”. The Mastic Reserve (KY002) and three dry forest IBAs in the eastern districts embrace much of the remaining breeding habitat of “Cayman Parrot” as well as that of Vitelline Warbler (*D. v. vitellina*), Thick-billed Vireo (*Vireo crassirostris alleni*), Yucatan Vireo (*V. magister caymanensis*) and Cuban Bullfinch (*Melopyrrha nigra taylori*).

Of **Montserrat's** three IBAs, only the Centre Hills IBA (MS002) is currently protected (as a forest reserve/protected forest, albeit mostly privately owned), and there are plans to designate this area as a national park (Box 3). The other two IBAs are privately owned and unprotected although the Forestry, Wildlife, National Parks and Protected Areas Act make provisions for their protection. The South Soufriere Hills IBA (MS003) is deep inside the volcanic exclusion zone, surrounded by pyroclastic flows, and thus is no longer directly impacted by any human activity (although it is still heavily affected by invasive species introduced by humans).



North Caicos mangroves, flats, pine and dry forest within the North, Middle and East Caicos Ramsar Site (TC003). Photo: Mike Pienkowski



Dry forest within the Bluff Forest IBA (KY010) on Cayman Brac. Photo: Kristan D. Godbeer/DOE

For 11 of the 12 restricted-range species triggering IBA criteria on Montserrat, including Montserrat Oriole (*Icterus oberi*), there are substantial populations in the Centre Hills IBA with the exception of Antillean Euphonia (*Euphonia musica*). Based on current knowledge, no seabird or wetland sites on Montserrat qualify as IBAs.

The nine IBAs identified in the **Turks and Caicos Islands** include two areas of forest (in one case including important ponds) that support the restricted-range birds; two groups of seabird breeding cays; two areas of former saltpans and adjacent creeks; and three other wetland areas (which include some related habitats including cliffs and other coastal types). These IBAs are on or near North, Middle and East Caicos, Grand Turk, Salt Cay and several small cays. No IBAs have been identified on West Caicos, Providenciales or South Caicos.

Opportunities



Some priority actions are outlined below to improve the conservation of birds and their habitats on each of the islands in the Caribbean UKOTs.

Anguilla Surveys focused on key bird species should include any additional “potential” IBAs such as Anguillita and Little Scrub Island, both of which support seabird colonies that in time could meet regionally significant population thresholds. A recent feasibility study has shown that it is possible to eradicate rats from Dog Island which would significantly benefit seabirds nesting on the island.

Bermuda The Department of Conservation Services has management programs in place for all of the seabird species. Efforts for the White-tailed Tropicbird (*Phaethon lepturus*), Bermuda’s commonest seabird, include studies of breeding success and chick growth-rates at a number of nesting locations, and installation of artificial nests at managed nature reserve areas such as the Castle Harbor Islands. These efforts, supported by the Bermuda Audubon Society, are helping to counteract the loss of many of the natural nest sites for this species through cliff collapse and erosion due to hurricane activity. Research is also ongoing on the greatly diminished population of Common Tern (*Sterna hirundo*) on the island and has indicated a shortage of male birds, which, coupled with the threat posed by hurricane activity to their tiny nesting islands, seriously threatens the future of this species on Bermuda. The existing monitoring work undertaken for seabirds, such as White-tailed Tropicbird (*Phaethon lepturus*) and Bermuda Petrel (*Pterodroma cahow*) should be integrated into IBA monitoring.

British Virgin Islands The IBA process in the British Virgin Islands has highlighted the need for more systematic surveys and monitoring to be undertaken. In the mid-1990s Green Cay (VG002) supported a large Roseate Tern (*Sterna dougallii*) colony. However, numbers appear to have declined at this site. At the same time, the numbers of this species on other islands (e.g. Cockroach Island, Cistern Rock, Necker

“There are several potential additional IBAs in Anguilla, BVI and TCI but further data are required for their designation.”

“There is an urgent need to control feral pigs in the Centre Hills on Montserrat which threaten oriole nesting sites”.

Island, Virgin Gorda) have increased, but fluctuate dramatically. This suggests that the BVI population of this bird is highly mobile and sensitive to disturbance. The network of breeding sites needs to be monitored on an annual basis to determine the conservation actions to be taken. Great Tobago (VG001) represents one of the five main Magnificent Frigatebird (*Fregata magnificens*) colonies in the insular Caribbean. With the control of goats on the island, the frigatebird colony (and indeed the vegetation) should be monitored to assess the impact that the goats had, and to inform future management actions.

There are also several potential additional IBAs in the territory, but further data are required. For example, the network of ponds and mangroves on Tortola (including Bar Bay), and Guana and Norman islands need more quantitative information, but may all qualify as IBAs. Guana and Norman islands appear to support significant breeding populations of Brown Pelican (*Pelecanus occidentalis*). Finally, the system of salt ponds on Anegada is most urgently in need of national level protection.

Cayman Islands There is a clear need for further survey work to fill information gaps, but also for the maintenance of the monitoring work that has started for many bird species in these territories. For example, a new survey of the Caribbean’s largest Red-footed Booby colony on Little Cayman is needed to evaluate possible hurricane-caused disruption. One has been proposed for 2009.

With regard to protection, it is intended that all of the IBAs will be incorporated into the Cayman Islands Department of Environment Protected Areas Management Programme. To be effective, all IBAs would require legal protection (which may include land purchase using the Cayman Islands Government Environmental Protection Fund which is part of the proposed National Conservation Law), advocacy and planning. None of the above can take place without the enactment of the above law, which has been pending since 2000.

Improved knowledge of ecology and socio-economic use of Centre Hills IBA guides its management and strengthens designation as a protected area

Box 3

As a result of the devastating volcanic eruptions on Montserrat, 60% of its forests have been lost, leaving Centre Hills IBA as the last feasible refuge for key endemic species, including the Critically Endangered Montserrat Oriole (*Icterus oberi*). Since 2005, a group of conservation organizations including the Montserrat National Trust and the RSPB (BirdLife in the UK) have been working with the Government of Montserrat on a project in the Centre Hills aimed at conserving its unique biodiversity for present and future generations. Two major assessments (biological and socio-economic) were undertaken that contributed to the development of the Centre Hills Management Plan which includes digitalized forest boundaries and provides a comprehensive baseline for future monitoring of the area. It has significantly increased capacity at the Department of Environment by training staff and supporting the development of legislation, the Conservation and Environment Management Act, which will enable the Centre Hills to be designated a National Park. The proposed area contains representative examples of all key habitats and species for which the Centre Hills are important.



The Vulnerable Forest Thrush (*Cichlerminia lherminieri*) is an elusive species, but is relatively common in the Centre Hills. Photo: Allan Sander

Important Bird Areas AMERICAS

Montserrat There are some seabird nesting colonies around the island, with White-tailed Tropicbird (*Phaethon lepturus*), Brown Pelican (*Pelecanus occidentalis*) and Brown Booby (*Sula leucogaster*) thought to nest. Establishing the size of the populations at these colonies would be a valuable exercise and should perhaps be built into the broader biodiversity monitoring program for the island. There is an urgent need to reduce the increasing numbers of feral pigs in the Centre Hills as they have the potential to destroy Montserrat Oriole (*Icterus oberi*) nesting sites and territories. They are also spreading invasive plants like the guava.

Turks and Caicos Islands There is a clear need for further survey work to fill information gaps, but also for the maintenance of the monitoring work that has started for seabirds. As well as using this information for monitoring IBAs, it will also serve to fill gaps in the IBA network. Currently there are no IBAs on West Caicos in the Turks and Caicos Islands. However, some areas may qualify as IBAs, which is urgent to ascertain in light of the major development in progress on this formerly uninhabited island. Several areas of Providenciales (e.g. Pigeon Pond and Frenchman's Creek Nature Reserve, Juba Creek and Flamingo Lake) probably previously qualified as IBAs, but have been, and continue to be devastated by built development, even within supposedly protected areas. On South Caicos, reinstatement of the tidal flow around Boiling Hole would no doubt lead to the (re-) establishment of the extensive salt-pan area as an internationally important site for waterbirds. Further seabird surveys may also point to IBA status for South Caicos' Admiral Cockburn Nature Reserve (Long Cay, Middleton Cay and Six Hills Cay).

“It is important to remember that the IBA program is very much a process and not a means to an end, identification of sites is just a beginning.”

For all Caribbean UKOTs, state, pressure and response variables at each IBA should be monitored annually to provide an objective status assessment and highlight management interventions that might be required to maintain these internationally important biodiversity sites. This basic site status monitoring would be best informed by regular survey results focused on the key bird species.

It is hoped that this IBA directory will support the identification of potential protected areas and inform the development of policy and legislation in the territories. Birds are one of the best researched and monitored taxonomic groups. They can thus potentially be good contributors to indicators of the state of the environment and biological richness of an area. Many other species of conservation concern, therefore, may benefit from the conservation of these sites.

It is important to remember that the Important Bird Area Program is very much a process and not a means to an end. Although IBA sites have been identified in all territories, as more data is collected, additional sites could be added in the future. The identification of IBAs is just a beginning. It has helped lay the foundations and conservation actions have begun at some sites.

Further information



Data sources

Information for this chapter came from the World Bird Database (BirdLife International) and:

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³ For a fuller list of references for each individual island, see BirdLife International (2008).