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# RAMSAR INFORMATION SHEET

## FOR WETLANDS OF INTERNATIONAL IMPORTANCE

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**Site reference number** 6UK001  
**1 Compilation date** 10 July 2002  
**2 Country** UK (Turks & Caicos)  
**3 Name of wetland** North, Middle and East Caicos Islands  
**4 Site centre location:** Latitude: 21 45 00 N Longitude: 71 45 00 W  
**5 Altitude (m)** **Min: 0 Max: 30 Mean**  
**6 Area (ha)** 58617

### 7 Overview

A wetland site of international importance containing a variety of marine and coastal habitat types, and complex natural transitions. Noteworthy are mangrove swamps, diverse bird life, numerous Arawak sites and several inlet cays. The whole area is a particularly good example of coastal wetland habitat in the Caribbean, providing shelter and nursery locations for various species of waterfowl, turtles and commercial fish species.

**8 Wetland type** Marine/coastal wetland

Code	Name	% Area
C	Coral reefs	0.9
D	Rocky shores	0.1
E	Sand / shingle shores (including dune systems)	0.1
Q	Saline / brackish lakes: permanent	0.8
R	Saline / brackish lakes: seasonal / intermittent	0.2
Sp	Saline / brackish marshes: permanent	2.6
Ss	Saline / brackish marshes: seasonal / intermittent	7.5
Ts	Freshwater marshes / pools: seasonal / intermittent	0.1
W	Shrub-dominated wetlands	4.6
Xf	Freshwater, tree-dominated wetlands	9.9
Other	Other	2.8
B	Marine beds (e.g. sea grass beds)	50.3
G	Tidal flats	4.6
H	Salt marshes	7.3
I	Mangrove / tidal forest	8.2

**9 Ramsar Criteria** 1, 2, 3, 4, 6  
**10 Map of the site** √  
**11 Compiler** **Joint Nature Conservation Committee**  
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### 12 Justification of criteria

Ramsar criteria 1

The North, Middle and East Caicos wetlands comprise interrelated ecosystems complete with submerged mangroves, algal flats and seagrass beds. It is a wetland site of international importance containing a variety of marine and coastal habitat types, and complex natural transitions. Noteworthy are mangrove swamps, diverse bird life, numerous Arawak sites and several inlet cays. The whole

area is a particularly good example of coastal wetland habitat in the Caribbean, providing shelter and nursery locations for various species of waterfowl, turtles and commercial fish species.

#### Ramsar criterion 2

Internationally important species occurring on the site (and in some cases more importantly on the adjacent woodland area which is ecologically linked and for which measures of conservation are being explored):

The following Turks & Caicos Islands endemic species of lizard:

the gecko *Aristelliger hechti* (CR), Curly Tail *Leiocephalus psammodromus*, Caicos Islands Reef Gecko *Sphaerodactylus caicosensis*;

and the one endemic species of snake: the Caicos Islands Trope Boa *Tropidophis greenwayi*.

In addition there are three further lizards that are endemic at the subspecific level:

Turks & Caicos Bark Anole *Anolis scriptus scriptus*, Turks & Caicos Rock Iguana *Cyclura carinata carinata* (CR; the only subspecies of *Cyclura carinata* found outside the Turks & Caicos Islands is confined to the small island of Booby Cay off nearby Mayaguana); Mabuya Skink (or slippery back or snake-doctor) *Mabuya mabouya sloanei*;

and one snake: Bahaman Rainbow Boa *Epicrates chrysogaster chrysogaster*.

The waters of the Ramsar site are important for turtles *Chelonia midas*, *Eretmochelys imbricata*, *Caretta caretta*, but most nesting beaches have not been included.

Cuban Crow *Corvus nasicus* - occurs only in Cuba and in the Caicos Islands;

Thick-billed Vireo *Vireo crassirostris stalagmum* - endemic subspecies restricted to the Caicos Islands;

Greater Antillean Bullfinch *Loxigilla violacea ofella* - endemic subspecies restricted to Middle and East Caicos;

Kirtland's Warbler *Dendroica kirtlandii* (VU) - non-breeding grounds for one of the most threatened bird species of the region, the world population consisting of only about 3000 individuals, which breed only in a restricted habitat in one part of Michigan, USA and spend the non-breeding season in largely unknown locations in the Bahamas and TCI.

#### Ramsar criterion 3

Additionally, submerged mangroves and algal flats are important in contributing suspended material to nearby sand banks and by virtue of circulation to and from the cuts and creeks, the mangroves also contribute materials to the coral reefs.

#### Ramsar criterion 4

The wetlands are thought to play a major role in providing a nursery and feeding grounds for numerous fauna. They act also as land-protection against hurricane damage. The shallow flats where the seagrasses grow serve as major nursery areas of the inshore marine environment. They are the immediate recipients of nutrients produced from the mangrove areas themselves. The areas often do not contain many species, but some exist in high numbers. Thus the economic value of these areas, particularly with regard to edible species such as mullets and shrimp and sport species such as bonefish, is high.

#### Ramsar criterion 6

The site (in some cases in combination with adjacent ecologically linked areas) regularly supports internationally important populations of

West Indian whistling duck *Dendrocyhna arborea* (VU),

the Caribbean population of brown pelicans *Pelecanus occidentalis*,

the nominate subspecies of the reddish egret *Egretta rufescens*,

the "Cuban/Bahaman" population of the West Indian flamingo *Phoenicopterus ruber*,

white-cheeked (or Bahama) pintail *Anas bahamensis*,

possibly non-breeding black-bellied plover *Pluvialis squatarola cynosurae*,

possibly non-breeding lesser yellowlegs *Tringa flavipes*,

Caribbean subspecies of gull-billed tern *Sterna nilotica aranea*.

### 13 General location

Nearest town/city: Kew, North Caicos Island. The settlements of Whitby, Bottle Creek (North Caicos), Conch Bar, Bambarra and Lorimers (Middle Caicos) are all situated close to the site.

**Administrative Region:** Turks & Caicos

### 14 Physical Features

Soil & Geology	basic, biogenic reef, limestone, mud, nutrient-poor, sand
Geomorphology and Landscape	caves, coastal, enclosed coast (including embayment), intertidal sediments (including sandflat/mudflat), islands, lagoon, lowland, open coast (including bay), pools, subtidal rock (including rocky reefs), subtidal sediments (including sandbank/mudbank)
Nutrient status	mesotrophic, oligotrophic
pH	alkaline
Salinity	brackish / mixosaline, fresh, hypersaline / hyperhaline, saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent, usually seasonal / intermittent
Summary of main climatic features	Rainfall averages 700 mm per year but is very variable. Potential evapotranspiration exceeds rainfall. Temperatures vary between 20°C and 35°C. Highest temperatures and rainfall occur in the summer.

### 15 Hydrological values

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping

### 16 Ecological features

At February 2002, the Ramsar site and adjoining areas which form part of the same system are the subject of a detailed study leading towards a management plan for the area. The study is being conducted by the UK Overseas Territories Conservation Forum, CAB International and the Turks & Caicos National Trust, in conjunction with the local residents and the TCI Government. The study was funded largely by the UK Department of the Environment, Agriculture and Rural Affairs Darwin Initiative. Work to implement the plan is planned by the Turks & Caicos National Trust and the UK Overseas Territories Conservation Forum, with support initially from UK Foreign & Commonwealth Office as well as sources in Turks & Caicos. (Contact point: UK Overseas Territories Conservation Forum (Attn: Dr Mike Pienkowski), 102 Broadway, Peterborough PE1 4DG, UK; E-mail : [pienkowski@cix.co.uk](mailto:pienkowski@cix.co.uk); web: [www.ukotcf.org](http://www.ukotcf.org)).

Some of the first products of this study were the maps which accompany this data form (see also section 8). These are amplified below by notes on the main vegetation and habitat classes compiled by Frederic J. Burton. Each Ramsar category is followed by a paragraph on the map categories (where appropriate) which fall within it.

Ramsar class A: Shallow marine waters

Water

Open seawater over sand banks south of the Caicos Islands, and in channels between them. Bottom vegetation not described or mapped. (Nothing is attributed to this category in section 8 because category B describes better.)

Ramsar class B: Marine beds

#### Water

Open seawater over sand banks south of the Caicos Islands, and in channels between them. Bottom vegetation not described or mapped but aerial and boat checks indicate extensive areas of sea grass.

#### Ramsar class C: Coral reefs

##### Water

Typical Caribbean barrier reef communities, including a reef crest and a back-reef lagoon off the north shore of east Caicos.

#### Ramsar class D: Rocky shores

Occurring along parts of the north-eastern shores of the Caicos Islands and small islets off these. Within the site, this is primarily on East Caicos and Iguana Cay.

#### Ramsar class E: Sand / shingle shores (including dune systems)

Occurring along parts of the north-eastern shores of the Caicos Islands and small islets off these. Within the site, this is primarily on East Caicos.

#### Ramsar class G: Tidal flats

##### Water

Low tidal flats which were flooded at the time of satellite image acquisition, showing as shallow water on the map, are unvegetated sand and silt substrates.

#### Exposed intertidal mud

Unvegetated sand and silt substrates exposed at the time of satellite image acquisition.

#### Ramsar class H: Salt marshes

##### Salicornia-Batis-Portulaca saltmarsh

A succulent herbaceous salt marsh community, on a flat calcareous silt substrate. Dominated by *Salicornia virginica*, *Salicornia bigelovii*, *Batis maritima*, and *Portulaca rubricaulis*. *Lycium tweedianum*, *Chamaesyce vaginulatum*, *Sporobolus virginicus*, and scattered *Avicennia germinans* shrubs may be present.

##### Distichlis / Sporobolus saltmarsh

A grass-dominated salt marsh community, on a flat calcareous silt substrate. Dominated by *Sporobolus virginicus* and *Distichlis spicata* in varying proportions. *Borrchia frutescens*, *Salicornia virginica*, *Salicornia bigelovii*, *Lycium tweedianum*, *Portulaca rubricaulis*, with *Conocarpus erectus* as isolated shrubs or trees, may be present.

##### Mixed saltmarsh with sparse silver Conocarpus

Scattered *Conocarpus erectus* var. *seriacea* shrubs and trees forming up to 20% cover on a calcareous silt substrate with emergent limestone bedrock. *Sporobolus virginicus*, *Salicornia virginica*, *Rhachicallis americana*, *Borrchia frutescens*, *Portulaca rubricaulis*, *Salicornia bigelovii*, *Fimbristylis ferruginea*, and *Batis maritima* form a partial ground cover in varying combinations. *Avicennia germinans* may be present as a rare emergent shrub or tree.

#### Ramsar class I: Mangrove / tidal forest

##### Rhizophora & Avicennia mangrove shrublands

Mangrove shrubland communities 1 metre tall, forming 40% - 60% cover on soft calcareous mud covered with a thick algal turf, and a network of tidal creeks. Ranging from monospecific *Avicennia germinans* at the landward extreme of the community, through mixed *Avicennia germinans* - *Rhizophora mangle*, to monospecific *Rhizophora mangle* towards the seaward edge.

*Rhizophora*, *Avicennia* and *Laguncularia racemosa* shrublands also occur in more inland sites, associated with *Conocarpus erectus* and succulent halophytes on pond fringes and in seasonal floodwater channels.

Ramsar class J: Coastal brackish / saline lagoons

The waterways between the islands (i.e. not in the open sea N or S) might fall into this category, but they fall also into other categories (e.g. B) and have been included there.

Ramsar class Q: Saline / brackish lakes - permanent

Ponds

Shallow brackish to hypersaline ponds, usually narrowly fringed by mangroves and succulent halophytes and otherwise unvegetated. Water levels fluctuate seasonally and many ponds may dry out periodically or seasonally, grading to class R below.

Ramsar class R: Saline / brackish lakes - seasonal / intermittent

Ponds

See Q above.

Ramsar class Ss: Saline / brackish marshes - seasonal / intermittent

Unvegetated rock & mud flats

Rock pavements and dark calcareous silt flooded by seasonal/intermittent expansion of natural brine pans. Virtually devoid of higher plants due to extremely high salinity. Slightly raised rock areas may rarely support a few prostrate *Conocarpus erectus*, severely stunted *Avicennia germinans*, *Salicornia virginica* or *Rhachicallis americana*.

Sparsely vegetated saline sand flats

Approximately 75% unvegetated sand with a thin algal crust, supporting local aggregations of *Avicennia germinans* shrubs, and the succulent halophytes *Portulaca rubricaulis*, *Salicornia virginica* and *Suaeda conferta*. Intermittently flooded by rain and/or tide. Old flamingo nests were observed in this habitat, as well as in some ponds.

Ramsar class Sp: Saline / brackish marshes - permanent

Natural brine pans

Depressed rock pavement areas, intermittently filled by high tides, becoming extremely hypersaline due to evaporation, forming crystalline salt at the margins. No vegetation.

Ramsar class Ts: Freshwater marshes / ponds: seasonal / intermittent

Pine woodland sinkholes

Ramsar class W: Shrub-dominated wetlands

Conocarpus shrubland on saltmarsh grasses

*Conocarpus erectus*, usually var. *seriacea*, forming a 1-3 metre seasonally flooded shrubland over a herbaceous community dominated by *Sporobolus virginicus* or occasionally *Distichlis spicata*. *Conocarpus erectus* var. *erectus* is often present as a prostrate shrub, with *Salicornia virginica*, *Portulaca rubricaulis*, *Borrhichia frutescens*, *Rhachicallis americana*, *Jacquinia keyensis*, *Rhynchospora colorata*, *Fimbristylis ferruginea*, *Agalinis maritima*, and occasionally *Rhizophora mangle* and/or *Avicennia germinans* as shrubs.

Conocarpus-Rhachicallis dwarf shrubland

A seasonally flooded, shrubland with most woody vegetation dwarfed, on calcareous silt with emergent limestone bedrock. Dominated by prostrate *Conocarpus erectus*, with *Rhachicallis americana*, *Rhizophora mangle*, *Jacquinia keyensis*, *Manilkara bahamensis*, *Thrinax morrisii*, *Borrhichia frutescens*, *Coccoloba uvifera*, *Cladium jamaicense*, *Swietenia mahagoni*, *Gundlachia corymbosa*, *Strumpfia maritima*, *Crossopetalum rhacoma*, *Sophora tomentosa*, *Fimbristylis ferruginea*, and *Distichlis spicata*.

Ramsar class Xf: Freshwater tree-dominated wetlands

Seasonally flooded woodlands (various)

1). *Conocarpus erectus*, including var. *seriacea*, forms seasonally / intermittently flooded woodland communities on very slightly raised sand banks amid tidal flats. The tree layer may be monospecific,

or may variously include *Pithecellobium keyense*, *Dodonea viscosa*, *Guapira discolor*, *Swietenia mahagoni*, *Maytenus phyllanthoides* and *Metopium toxiferum*. The shrub layer may include the endemic *Eupatorium lucayanum*, *Crossopetalum rhacoma*, *Borrchia frutescens*, *Thrinax morrisii*, *Coccoloba uvifera*, and *Erithalis fruticosa*, while the herbaceous layer typically includes *Sporobolus virginicus*, *Chamaesyce vaginulatum* and *Lycium tweedianum*.

2). *Sabal palmetto* palms form seasonally flooded woodlands in association with *Gundlachia corymbosa* where fresh to brackish floodwater accumulates during the rainy season. The two species are strongly co-dominant, with *Distichlis spicata* often also abundant.

Seasonally flooded Pinus woodland

*Pinus caribaea* woodland occurs in extensive stands intermingled with other seasonally flooded habitats. The limestone bedrock has very thin soils, and many seasonally flooded sinkholes: the entire habitat floods with fresh water during periods of intense rain. *Sabal palmetto* and *Cladium jamaicense* grow in the sinkholes. The shrub layer is usually sparse, with *Coccoloba uvifera*, *Thrinax morrisii*, *Randia aculeata*, *Tabebuia bahamensis*, *Cassia inaguensis*, *Byrsinomia lucida*, *Lysiloma latisiliquum*, *Savia erythroxyloides*, *Conocarpus erectus*, *Metopium toxiferum*, *Acacia choriophylla*, *Swietenia mahagoni*, *Ernodea serratifolia* and *Erithalis fruticosa*. Herbaceous species include *Rhynchospora colorata*, *Jacquemontia havanensis*, *Cassytha filiformis*, and the ground orchid *Spiranthes vernalis*.

Ramsar class Other

Dry shrublands

Diverse xerophytic mixed evergreen-deciduous shrublands and woodlands, on limestone bedrock and thin soils. Species composition varies with elevation above ground water, and exposure to salt spray. Abundant tree species include *Lysiloma latisiliquum*, *Coccoloba diversifolia*, *Tabebuia bahamensis*, *Coccothrinax argentata*, *Thouinia discolor*, *Metopium toxiferum*, *Acacia choriophylla*, *Cephalocereus millspaughii*, *Guaicum sanctum* and *Thrinax morrisii*. Several orchid species in the genus *Encyclia* are also widespread and conspicuous in these habitats.

The notes in this section and, more particularly in sections 17 and 18, will be amplified when the results of current studies coordinated by UK Overseas Territories Conservation Forum, CAB International and the Turks & Caicos National Trust become fully available.

## 17 Noteworthy flora

Internationally important species occurring on the site

Habitat:

The mangroves of the TCI are typical of the region. Three species of mangrove, *Rhizophora mangle*, *Laguncularia racemosa* and *Avicennia germinans* grow with *Conocarpus erectus* (Combretaceae) in mixed stands along the inland margin of the islands fringing the Caicos Bank.

Nationally important species occurring on the site

Habitats:

Pine forests are particularly noteworthy on North Caicos which has the highest rainfall of all the islands, as well as on Middle Caicos.

The dry shrubwoods of coastal areas and rocky plants, with species such as the prickly pears, *Opuntia millspaughii*, *O. bahamana* and *O. lucayana*, have been identified as regional priorities for the conservation of cacti and succulents.

Matured forest stands are rare in many places, probably because of clearance for plantations, hurricane action, and possibly the high demands for fuelwood and for charcoal production (CDB 1983).

Higher plants:

*Batophora* sp, *Penicillus* sp, *Halimeda* sp, *Acetabularia* sp, *Caulerpa* sp, *Thalassia testudinum*, *Cymodocea filiforme*, *Rhizophora mangle*, *Avicennia germinans*, *Salicornia perrinsii*, *S. bigloveii*, *Borrchia arborescens*, *Sporolobus virginicus*.

Predominant tree species of the forest/scrub biome of the Turks and Caicos include *Pithecellobium quadalupense* (Leguminosae), *Conocarpus erectus* (Combretaceae), *Bursera simaruba*

(Burseraceae), a species of lignum-vitae *Guaiacum santum* (Zygophyllaceae) (EN), Caribbean mahogany *Swietenia mahagoni* (Meliaceae) (EN), *Manilkara zapota* (Sapotaceae) and Caribbean pine *Pinus caribaea* (Pinaceae).

The following tree and shrub species, all scarce and local in Turks and Caicos and restricted regionally in this distribution, were evaluated against IUCN red list criteria but are not considered to be globally threatened.

*Caesalpinia reticulata*, *Euphorbia gymnonata*, *Hibiscus brittonianus*, *Mimosa bahamensis*, *Pavonia bahamensis*, *Pinus caribaea* var. *bahamensis*, *Tabebuia bahamensis*, *Thouinia discolor*, *Ziziphus taylori*, *Encyclia caitensis*, *Argythamnia argentea*, *Opuntia x lucayana*, *Limonium bahamense*, *Cynanchum stiptatum*, *Borreria brittonii*, *B. capillaris*.

## 18 Noteworthy fauna

Internationally important species occurring on the site:

Reptiles and amphibians:

the following Turks & Caicos Islands endemic species of lizard:

the gecko *Aristelliger hechti* (CR),

Curly Tail *Leiocephalus psammmodromus*,

Caicos Islands Reef Gecko *Sphaerodactylus caicosensis*;

and the one endemic species of snake: the Caicos Islands Trope Boa *Tropidophis greenwayi*.

In addition there are three further lizards that are endemic at the subspecific level:

Turks & Caicos Bark Anole *Anolis scriptus scriptus*,

Turks & Caicos Rock Iguana *Cyclura carinata carinata* (CR; the only subspecies of *Cyclura carinata* found outside the Turks & Caicos Islands is confined to the small island of Booby Cay off nearby Mayaguana);

Mabuya Skink (or slippery back or snake-doctor) *Mabuya mabouya sloanei*;

and one snake: Bahaman Rainbow Boa *Epicrates chrysogaster chrysogaster*.

Marine turtles are common, nesting on many of the cays, *Chelonia midas*, *Eretmochelys imbricata*, *Caretta caretta*.

Birds:

*Dendroica kirtlandi*, *Dendrocygna arborea*, *Phaethon lepturus catesbyi*, *Pelecanus occidentalis occidentalis*, *Fregata magnificens*, *Ardea herodias*, *Casmerodius albus egretta*, *Egretta thula thula*, *Egretta caerulea*, *Egretta tricolor ruficollis*, *Egretta rufescens colorata*, *Bubulcus ibis ibis*, *Butorides striatus bahamensis*, *Nycticorax nycticorax*, *Nycticorax violaceus violaceus*, *Phoenicopterus ruber ruber*, *Dendrocygna arborea*, *Anas crecca*, *Anas bahamensis bahamensis*, *Anas discors*, *Oxyura jamaicensis*, *Pandion halioetus ridgwayi*, *Rallus longirostris*, *Pluvialis squatarola*, *Charadrius alexandrinus nivosus*, *Charadrius wilsonia*, *Charadrius seimpalmatus*, *Charadrius melodus*, *Charadrius vociferus*, *Haematopus palliatus prattii*, *Himantopus mexicanus*, *Tringa melanoleuca*, *Tringa flavipes*, *Tringa solitaria*, *Catoptrophorus semipalmatus*, *Actitis macularia*, *Bartramia longicauda*, *Numenius phaeopus*, *Arenaria interpres*, *Calidris alba*, *Calidris pusilla*, *Calidris mauri*, *Calidris minutilla*, *Calidris melanotos*, *Calidris himantopus*, *Limnodromus griseus*, *Gallinago gallinago*, *Larus atricilla*, *Sterna nilotica aranea*, *Sterna maxima maxima*, *Sterna sandvicensis acuflavida*, *Sterna dougallii dougallii*, *Sterna hirundo*, *Sterna antillarum antillarum*, *Sterna anaethetus recognita*, *Sterna fuscata fuscata*, *Anous stolidus stolidus*, *Ceryle alcyon*.

## 19 Social and Cultural Values

Aesthetic

Aquatic vegetation (e.g. reeds, willows, seaweed)

Archaeological/historical site

Conservation education

Current scientific research

Fisheries production

Non-consumptive recreation

Sport fishing

Subsistence fishing

Tourism

Traditional cultural

## 20 Land tenure/ownership

Ownership category	On-Site	Off-Site
National/Crown estate	+	+
Private	+	+

## 21 Current land use

Activity	On-Site	Off-Site	Scale
Nature conservation	+	+	Small-Scale
Tourism	+	+	Small-Scale
Recreation	+	+	Small-Scale
Research	+	+	Small-Scale
Collection of non-timber natural products: subsistence	+	+	Small-Scale
Cutting of vegetation (small scale/subsistence)	+	+	Small-Scale
Fishing: (unspecified)	+	+	Small-Scale
Fishing: recreational/sport	+	+	Small-Scale
Arable agriculture (unspecified)		+	Small-Scale
Grazing (unspecified)		+	Small-Scale
Urban development		+	Small-Scale
Other		+	Small-Scale

## 22 Adverse factors affecting the ecological character of the site

Activity	On-Site	Off-Site	Scale
Introduction/invasion of exotic animal species	+	+	Small-Scale
Introduction/invasion of exotic plant species	+	+	Small-Scale
Transport infrastructure development	+	+	Small-Scale
Unspecified development: urban use		+	Large-Scale

## 23 Conservation measures taken

Conservation measure	On-site	Off-site
NNR	+	+

## 24 Conservation measures proposed but not yet implemented

see below

### Site vulnerability and management statement

The Ramsar site was protected under domestic legislation as a nature reserve around the time of its listing under Ramsar. At the same time, several other nearby sites were protected. Recent and current studies have identified other parts of the adjacent and ecologically linked areas which need protection. There is no current management plan. However, the purpose of the Darwin Initiative project 1999-2002 is to produce a draft management plan, and this is on schedule for production in 2002. The work is coordinated by the Turks & Caicos National Trust and the UK Overseas Territories Conservation Forum, and has involved local people at all stages. The general approach of the draft management plan was enthusiastically supported at a community meeting in Middle Caicos in February 2002.

As noted above, the Darwin Initiative project Developing Biodiversity Management Capacity Around the Ramsar Site in Turks & Caicos Islands is being completed in 2002. Led by UK Overseas Territories Conservation Forum, CAB International and the Turks & Caicos National Trust, this is resulting in a draft management plan for the Ramsar site and surrounding area, which has already achieved a high degree of local support during its development. TCNT and UKOTCF are setting up



follow-up work to bring this plan into operation, including its further development. This has received initial financial support from the UK Foreign & Commonwealth Office and local sources, with the further necessary support being pursued. Some aspects of the plan are indicated in sections 26 & 27 below.

### **25 Current scientific research/survey/monitoring and facilities**

The Darwin Initiative project has brought together a group of scientific specialists from a range of institutions, many of whom have not previously worked together. The biodiversity surveys conducted have drawn on: conservation management, organisational capacity building and ornithological expertise from the UK Overseas Territories Conservation Forum; entomological expertise from CABI Bioscience and the Natural History Museum in London; botanical expertise from The Fairchild Tropical Gardens (Florida) and the National Trust for the Cayman Islands, with satellite-imagery skills of the latter; knowledge of bats from the joint chairman of the IUCN/SSC Chiroptera Specialist Group and conservation advisor to The Bat Conservation Trust, and the Carnegie Museum of Natural History (Pennsylvania); expertise in herpetiles from the Zoological Society of San Diego. In each case, the work of these recognised international specialists has been complemented by the knowledge of local people. The results of this work are being incorporated in the draft management plan as well as being prepared for scientific publication. Needs for further study and for monitoring are being addressed within the context of the working plan.

### **26 Current conservation education**

The training and education elements of the Darwin Initiative project have been varied considerably to fit in with changing local requirements. During the specialists' visits, a wide range of those interested in developing skills have been invited to join in on Middle Caicos. Those to take advantage of this ranged from the local elementary school on Middle Caicos to the British West Indies Collegiate from Providenciales, the High School on North Caicos and staff of the TCI Government. Another extra area of training developed was capacity-building in the Middle Caicos community as a whole to take an increased part in decision-making on the future of their island, based partly on the preliminary results of this project discussed in community meetings. In terms of formal education, the Turks & Caicos National Trust, in consultation with local schools, has developed and implemented an internationally acclaimed environmental education programme for elementary schools *Our Land, Our Sea, Our People*. This fills a gap in either the absence of suitable environmental material or the use of locally inappropriate materials from UK or distant parts of the Caribbean, so as to restore in young people a value in local knowledge of relations with their environment, while it is still possible to benefit from the first-hand knowledge of their grandparents, who had to live off the land. This will be extended using results from the study of the Ramsar site and adjacent area.

The ecotourism-related developments noted below will be used also for educational purposes.

### **27 Current recreation and tourism**

A key element of the draft management is the provision and management of trails, other viewing situations, literature and guide training at a range of situations within the Ramsar site and surrounding area. Other initiatives of the Turks & Caicos National Trust and of the TCI Government are providing support to local residents on the development of small businesses compatible with, and complementary to, the conservation and education initiatives.

The Government of the Turks & Caicos has transferred to the Turks & Caicos National Trust a former school building, in Bambarra, Middle Caicos, to provide an environmental centre. The building requires considerable renovation before it can be used effectively, but it is already a major asset. TCNT, with the support of TCI Government, UKOTCF and others, is seeking funding for this from various sources, mainly in-country. This will integrate with the other initiatives noted above.

### **28 Functional jurisdiction**

Ministry of Natural Resources, Government of the Turks & Caicos Islands, Grand Turk, Turks & Caicos Islands, British West Indies

### **29 Management authority**

Proposal for Turks & Caicos National Trust (PO Box 540, Providenciales, Turks & Caicos Islands, British West Indies; tel +1 649 941 5710; fax +1 649 941 4258; e-mail: tc.nattrust@tcway.tc) to lead in mgmt of site in conjunction with TCI Gov Departments.

### 30 Bibliography

#### Specific References

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