

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX.22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.
2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.
3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the Official Respondent:

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Designation date

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Site Reference Number

Name and address of the compiler of this form:

UK Overseas Territories Conservation Forum,
102 Broadway, Peterborough, PE1 4DG, UK

2. Date this sheet was completed/updated:

Designated: 27 June 1990

3. Country:

UK (Turks and Caicos)

4. Name of the Ramsar site:

North, Middle and East Caicos Islands

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

- i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* ☐;
- ii) **an electronic format** (e.g. a JPEG or ArcView image) *Yes*
- iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* ☐;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

21 45 00 N 71 45 00 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

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 and Caicos

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 58617

Min.	0
Max.	30
Mean	No information available

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

A wetland site of international importance containing a variety of marine and coastal habitat types, and complex natural transitions. There are also shallow inland ponds of various sizes linked to the sea in times of storm and/or via subterranean channels. 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.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1, 2, 3, 4, 6, 8

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar Criterion 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:

Green *Chelonia midas*, Hawksbill *Eretmochelys imbricata*, Loggerhead *Caretta caretta* sea turtles, 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*.

Ramsar Criterion 8

The area and the flushing of the wetlands to the banks provide food, shelter and nursery locations for various commercial fish and shellfish species, including fish, conch and lobster fisheries.

See Sections 21/22 for details of noteworthy species

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Caribbean

b) biogeographic regionalisation scheme (include reference citation):

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	basic, sand, mud, nutrient-poor, limestone, biogenic reef
Geomorphology and landscape	lowland, coastal, caves, subtidal rock (including rocky reefs), subtidal sediments (including sandbank/mudbank), intertidal sediments (including sandflat/mudflat), open coast (including bay), enclosed coast (including embayment), islands, lagoon, pools
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	Annual rainfall averages 700 mm but is very variable. Potential evapotranspiration exceeds rainfall. Temperatures vary between 20°C and 35°C. Highest temperatures and rainfall occur in the summer.

General description of the Physical Features:

No information available

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The Turks and Caicos Islands lie between the Bahamas, Cuba and Hispaniola. Together with southern Florida, the Bahamas and northern Cuba, they are part of a platform of rocks formed as limestone depositing in shallow seas as the crust slowly subsided. Virtually all these rocks of the area, to a depth of several thousand metres, are directly of marine origin, except some fossil soils and sand dune rock (aeolian limestone). The region has always had a marine environment from the time of its formation until the present.

The Turks and Caicos Islands are on two shallow banks (Turks Bank and the larger Caicos Bank), with deep ocean between them. The maximum altitude is about 50 m asl. There are further shallow banks (Mouchoir, Silver and Navidad) to the south-east but without islands; some of these banks are within TCI territory. They are important for whales and probably for feeding seabirds. The Bahamas lie on separate banks to the northeast, and share some aspects of the geography.

The sculpting of these rocks depended largely on actions in the Pleistocene Ice Ages, which began approximately two million years ago, when the level of the oceans dropped. In the third glacial, sea level in the region fell by well over 120 metres, and, in the last one, by just under 120 metres. As sea level fell, the oolite was blown up from the beach to form dunes. The dunes hardened as rock ridges. Of great importance to the later development of the ridge is the cave and its related features. Blue holes and underground caves are features of great importance to some birds, and which can be formed only above sea level. During the periods of glaciation, the entire areas of both Caicos Bank and Turks Bank were dry land, and would have been subject to erosion and solution. Blue holes would have formed in many areas, but most of them would have been filled in by marine sediments once the rising sea covered them up. In some areas they have stayed open.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces, Sediment trapping

19. Wetland types:

Marine/coastal wetland

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

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

Some of the first products of the study of this area (Pienkowski 2002, see below) were the maps which accompany this Ramsar Information Sheet (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 sandbanks 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: Saltmarshes

Salicornia-Batis-Portulaca saltmarsh

A succulent herbaceous saltmarsh 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 saltmarsh 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*, *Borrchia 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*, *Borrchia 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 and the Turks & Caicos National Trust become fully available.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

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 virginica*, *S. bigloveii*, *Borreria arborescens*, *Sporolobus virginicus*.

Predominant tree species of the forest/scrub biome of the Turks and Caicos include *Pithecellobium keyense* (Leguminosae), *Conocarpus erectus* (Combretaceae), *Bursera simaruba* (Burseraceae), a species of lignum-vitae *Guaiacum santum* (Zygophyllaceae) (EN), Caribbean mahogany *Swietenia mahagoni* (Meliaceae) (EN), *Manilkara bahamensis* (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*.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in 12. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.

Birds

Species Information

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*.

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic

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

Archaeological/historical site

Environmental education/ interpretation

Fisheries production

Non-consumptive recreation

Scientific research

Sport fishing

Subsistence fishing

Tourism

Traditional cultural

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

- i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:
- ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:
- iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:
- iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
National/Crown Estate	+	+
Private	+	+

25. Current land (including water) use:

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

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
No factors reported	NA				

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?

Is the site subject to adverse ecological change? NO

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
National Nature Reserve (NNR)	+	+
Site management statement/plan implemented	+	+

b) Describe any other current management practices:

National Nature Reserve (NNR) - 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.

Site management statement/plan implemented - The Ramsar site and adjoining areas which form part of the same system were the subject of a detailed study leading towards a management plan for the area (Pienkowski 2002). The study was 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 partly by the UK Department for Environment, Agriculture and Rural Affairs Darwin Initiative.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

Site management statement/plan implemented - See Pienkowski (2002), available at www.ukotcf.org

National Nature Reserve (NNR) - Recent and current studies have identified other parts of the adjacent and ecologically linked areas which need protection.

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

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.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

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.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

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.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

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

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Lead: 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.natrust@tciway.tc) in conjunction with TCI Gov's Protected Areas Dept & local community

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see 15 above), list full reference citation for the scheme.

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