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TURKS & CAICOS ISLANDS

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MAURICE HANSHELL

Western Atlantic Turtle Symposium
Simposio de Tortugas del Atlantico Occidental

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San José, Costa Rica
Turks & Caicos National Report, WATS I Vol 3, pages 409-422

WESTERN ATLANTIC TURTLE SYMPOSIUM
San José, Costa Rica, July 1983

NATIONAL REPORT FOR THE COUNTRY OF

TURKS & CAICOS ISLANDS

NATIONAL REPORT PRESENTED BY

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WIDECAST
Wider Caribbean Sea Turtle Conservation Network

With a grant from the U.S. National Marine Fisheries Service, WIDECAST has digitized the databases and proceedings of the **Western Atlantic Turtle Symposium (WATS)** with the hope that the revitalized documents might provide a useful historical context for contemporary sea turtle management and conservation efforts in the Western Atlantic Region.

With the stated objective of serving "as a starting point for the identification of critical areas where it will be necessary to concentrate all efforts in the future", the first Western Atlantic Turtle Symposium convened in Costa Rica (17-22 July 1983), and the second in Puerto Rico four years later (12-16 October 1987). WATS I featured National Reports from 43 political jurisdictions; 37 presented at WATS II.

WATS I opened with these words: "The talks which we started today have the multiple purpose of bringing our knowledge up to date about the biological peculiarities of the marine turtle populations of the western Atlantic; to know and analyse the scope of the National Reports prepared by the scientific and technical personnel of more than thirty nations of the region; to consider options for the orderly management of marine turtle populations; and in general to provide an adequate forum for the exchange of experiences among scientists, administrators, and individuals interested in making contributions for the preservation of this important natural resource."

A quarter-century has passed, and the results of these historic meetings have been lost to science and to a new generation of managers and conservationists. Their unique importance in providing baseline data remains unrecognized, and their potential as a "starting point" is neither known nor appreciated.

The proceedings document what was known at the time concerning the status and distribution of nesting and foraging habitat, population size and trend, mortality factors, official statistics on exploitation and trade, estimated incidental catch, employment dependent on turtles, mariculture operations, public and private institutions concerned with conservation and use, legal aspects (e.g. regulations, enforcement, protected areas), and active research projects. In most cases it was the first time a national sea turtle assessment had been conducted.

Despite the potential value of this information to agencies responsible for conducting stock assessments, monitoring recovery trends, and safeguarding critical habitat in the 21st century, the hand-written National Reports, largely illegible in the published proceedings, have slipped into obscurity. To help ensure the legacy of these symposia, we have digitized the entire proceedings, including the National Reports, plenary presentations and panels, and annotated bibliographies of both meetings, and posted them online at http://www.widecast.org/What/RegionalPrograms.html.

Each article has been scanned from the original document. Errors in the scan have been corrected; however, to be true to the original content (as closely as we can discern it), potential errors of content have not been corrected. This article should be cited:

Fletemeyer, J. 1984. National Report for the Turks & Caicos, pp.409-422. *In*: Bacon, P., F. Berry, K. Bjorndal, H. Hirth, L. Ogren and M. Weber (Editors), Proceedings of the First Western Atlantic Turtle Symposium, 17-22 July 1983, San José, Costa Rica. Volume III: The National Reports. RSMAS Printing, Miami.

Karen L. Eckert
WIDECAST Executive Director
June 2009

COUNTRY: TURKS & CAICOS ISLANDS

INTRODUCTION

Beginning 7 July 1982 a seven-day sea turtle socio-economic and nesting survey study of the Turks and Caicos Islands was conducted. The purpose of this study was to collect data to complete a national report of this area for the Western Atlantic Turtle Symposium (W.A.T.S.) to be held in 1983 in San José, Costa Pica. The data for the report was collected using the following objectives as a guideline.

1. Conduct surveys of all the marine shoreline within the British territory known as the Turks and Caicos Islands.
   a. Record the types of shoreline present for the purpose of recording actual or potential sea turtle nesting beaches (so that subsequent surveys can be more time and cost-effective), and to document the kinds and amount of shoreline throughout the area.
   b. Record all signs of sea turtle tracks and nests or nesting beaches for the purpose of developing a comprehensive index, of the extent of sea turtle nesting activity, including updated data on prior known concentrations, determination of extent of dispersed nesting activity, and determination of any prior unrecorded nesting sites.
2. Compile data of all kinds to determine the status of sea turtle populations.
3. Review present conservation and management programs related to sea turtles
4. Determine socio-economic importance of sea turtles.
5. Make recommendations to help promote the survival status sea turtle populations inhabiting the territorial waters of the Islands.

BACKGROUND

General Geographic Description of the Turks and Caicos Islands

The Turks and Caicos Islands represent a British Crown Colony. The colony consists of two groups of islands at the southern extremity of the Bahamas chain lying between 21º and 22º North and 71º and 72º West (refer to Fig. 1).

The Turks and Caicos Islands consist of eight inhabited islands and many uninhabited islands. These islands have a total land area of 166 square miles; South Caicos and Middle Caicos have the largest land areas.

Population estimates for these islands vary, but the 1970 census reveals that it is 5,657 (Sadler 5:2). During, the last decade or so the populations of these islands has been declining, due to primarily the emigration of people to Freeport and other areas of the Bahama Islands. The breakdown of the 1970 census is as follows:

Grand Turk	2,335	Kew	290
Salt Cay	350	Whitby	52
Conch Car	155	Sandy Point	64
Bambarra	123	Blue Hills	312
Lorimers	102	The Bight	114
Bottle Creek	601	Five Rays	8
South Caicos	1,032		

The Turks and Caicos Islands may be considered part of the Bahamas. In terms of terrain and vegetation these islands are comparable to Great Inagua and Mayaguana. The drier islands of Grand Turk, Salt Cay. South Caicos and East Caicos resemble great Inagua; Middle Caicos. North Caicos and Providenciales resemble Mayaguana. The latter has sufficient rainfall to support a moderate state of coppice vegetation.

Coastline and Offshore Areas

The coastline of the Turks and Caicos Islands varies greatly. On the north side there are long stretches of moderate to high-energy beaches. Typically these beaches have a moderately sloping beach profile which is usually well vegetated about 10 meters above the sigh tide lire. The vegetation consists of sea grapes, saltbush, purslane, beach morning glory and buttonwood. Similar but much shorter beaches are found on many of small, offshore cays located to the east and south.

Laboratory analyses of sand collected from many of the beaches reveal that the sands are carbonate it origin. The sand is usually medium grain and well-sorted. However, a few beaches have a few beaches have predominately fine-grained sediments. The color, according to Menzel's color scheme is white to light tan.

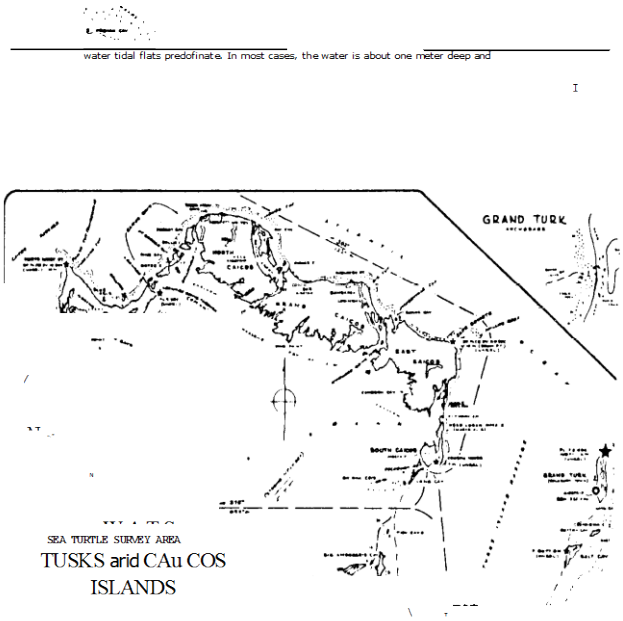
In addition to long stretches of sandy beach there are areas of coastline on the windward side of the islands that are extremely rocky. Well-stratified sandstone areas have been exposed by wind and hydraulic erosional forces.

A completely different description is applied to much of the southern coastline. Here vast communities of mangrove are common. Extensive tidal swamps with long meandering tidal creeks sometimes stretch more then 4 kilometers inland.

Only Middleton Coy does not fit the above description. This .5 kilometer island apparently was built iron the gradual accumulation of conch shells which fishermen have left for countless decades (Hodgkins, personal communication).

The offshore areas bordering the Turks end Caicos Islands are quite diverse. On the south sides of many of the islands vast expanses of shallow-water tidal flats predominate. In most cases, the water is about one meter deep and grass beds (consisting of *Thalassia* and *Syringodium*) occupy the bottom. Grass vegetation is common on the bottom of most of the tidal creeks; however, some of the creek bottom has not been colonized by vegetation because of extensive siltation. Much of this exposed bottom is blanketed by jellyfish.

Figure 1. Turks and Caicos Islands – W.A.T.S. National Report Study Area.[1]



[1] *Editor's note (2009):* Maps and figures are reprinted exactly as they appear in the original WATS I Proceedings (Bacon et al. 1984); we regret the poor quality exhibited in some cases.

Farther south is the Caicos bank which extends 20 to 40 miles south of the island chain. On the windward side, of many islands are spectacular fringing reefs which range between 5 meters and 20 meters in depth, Here there are rich and spectacular populations of reef fish and hard corals. Occasionally, farther away from shore some “patch” reefs may be found.

One unusual submarine feature worth mentioning is the 'Ocean Hole.' A dive and two aerial surveys of this feature (conducted during the July 1982 survey) revealed that the hole is about 1 kilometer in diameter. The rim is located in about 4 meters of water and then descends perhaps a hundred meters or more almost straight to the bottom. The water is extremely turbid with visibility of 10 meters at the surface dropping down to almost nil at 80 meters. Although there are large populations of reef and pelagic fish as well as large numbers of green sea turtles (mainly juveniles) in the Ocean Hole, there is a conspicuous absence of hard corals.

A History of Sea Turtles in the Turks and Caicos Islands

Green sea turtles were an important factor it the colonization of the American tropics because they were abundant, easy to keep alive for months, and represented an important protein source. There are reports from the time of the Spanish exploration until the late nineteenth century of ships stopping to replenish their stores with water and turtles in the Turks and Caicos Islands. Unfortunately the number of turtles taken and the relative abundance of turtles is unknown. The earliest record on this subject is from 1906. During that year the Turks exported $3,538.00 worth of turtle shell (Sadler. 1972:37). In 1907, the local sea turtle industry reached its peak and during the same year the government passed the Turtle Protection Ordinance, which protected turtles from poaching by fishermen from the Bahamas and other nearby islands. In 1909, the Caicos Development Company leased Chalk Sound for raising and canning turtles. Although the sea turtle industry became quite large during the first decade of this century, it gradually declined to nil by 1930. Although the reasons for this decline are unknown, presumably a decline in the population of these animals and a lessening demand for turtle products were responsible.

Although there has never been a resurgence in the turtle industry, there is still a keen interest in these animals among the local island population. There is a rich oral tradition in which the turtle is frequently mentioned. Today, there are only a few “halftime” turtle fishermen on the island and perhaps about seventy fishermen who will tale a turtle where the opportunity presents itself. Virtually all turtles are consumed locally and can be found it markets only sporadically but on a year-round basis.

Based on the July 1981 survey, it is estimated that about 850 turtles are caught annually. Most of these turtles are juvenile green sea turtles which weigh between two and eight kg. Some hawksbills (juvenile to adult size) are taken incidentally in the lobster season and occasionally a loggerhead or an adult green will be taken when encountered by fishermen on deepwater reefs. Based on the results of the survey, fishing pressure at this level does not seem to pose a serious threat to the survival of sea turtle populations in the waters off the Turks and Caicos Islands.

Status of the Knowledge of See Turtles

Very little is known abut the sea turtle populations that inhabit the Turks and Caicos Islands. This is due to the lack of any government records and to the lack of systematic studies of these animals. What is known comes from two sources: incidental observations of local divers and fishermen and a survey conducted by Anne Meylan in 1979 (NMFS Technical Memorandum, 1979, 35-36).

Information from these two sources indicates that there is no concentrated nesting by any species in the islands. The July 1983 survey confirmed this belief; however, a few beaches were found on which a large number of crawls could be identified. Most of these crawls belonged to hawksbill sea turtles but a few belonged to green sea turtles. No crawls belonging to leatherbacks or loggerheads were observed. However, David Winn (personal communication), one of the most active turtle fishermen in the area, is certain that loggerhead sea turtles do occasionally nest there. He has also observed turtles nesting in the daytime!

There are some reports of "Bastard" and 'Mulatto" turtles in the Turks and Caicos Islands, but the reports are conflicting. Meylan also reported mention of “Mulatto” turtles during her 1979 survey. It is

probable that these are “folk” names for loggerheads. However, the possibility that these names might be used to refer to “ridleys” cannot be completely discounted.

Local fishermen also mention a large population of juvenile green sea turtles present in the tidal creeks on the south side of Middle Caicos and North Caicos Islands. Both aerial and boat surveys confirmed this belief. During the 1982 observation, a large number of juvenile green sea turtles in the channels were seen in most of these creeks (refer to Table 7A). Some sightings of juvenile greens were made almost four kilometers inland. A special collecting survey that involved capturing a representative sample of these animals indicated that they were in the *3* kg to 10 kg size range. Smaller and larger greens were not encountered in the creeks during these surveys. A stomach content analysis made from a selected number of juvenile greens revealed that these animals were subsisting on turtle grass (*Thalassia*) although other materials were present but which could net be positively identified.

Larger greens as well as a wide size range of hawksbills were observed in deep water Most sightings of hawksbills were made on fringing and patch reefs where coral was abundant. Only one Juvenile was encountered on a grass bed. During the aerial surveys only one loggerhead see turtle could be positively identified. This animal was a juvenile swimming over a deep-water reef in about 100 meters of water.

A larger number of green sea turtles end one hawksbill were observed in the Ocean Hole during two aerial surveys. All of these sightings were of juvenile animals. Meylan also reports sighting some large green turtles in the Ocean Hole. Local interviews with native fishermen indicated that a large number of turtles have been attracted to this area.

Information on seasonality and migratory patterns of turtles for this is nonexistent. However, it is possible to say with same degree of confidence that nesting occurs between the months of April and August with the heaviest nesting month being May. Some fishermen report that adult greens are more common in the spring and that hawksbills of all ages and juvenile greens are seen year-round. There have been no observations of hatchings. Meylan reports an, interview with a local fisheries officer who has observed a seasonal movement of leatherbacks past Drum Point in East Caicos. No collaborating observations of this nature could be found.

METHODS

To obtain the most accurate and comprehensive data on sea turtles and to prepare the national report for the Turks and Caicos Islands, this investigator employed five different strategies: (1) beach and pelagic aerial surveys, (2) visits to many of the beaches for the purpose of 'ground truthing', (3) researching governmental records, (4) conducting personal interviews with local fishermen, and (5) participating in turtle fishing with native fishermen.

Aerial Surveys: A total of 9.1 hours were spent conducting aerial surveys. A Cessna 177 was used to conduct these surveys. The entire coastline of the Turks and Caicos Islands was flown over at least once. These Surveys were conducted according to the method described in the Manual of Sea Turtle Research and Conservation Techniques (pp. 43-64). Before each flight, each large island to be surveyed was divided into zones which were usually defined by a major geomorphological coastal feature (i.e., the mouth of an estuary or a large rock easily identified on a chart) or some kind of human architecture (i.e., an airstrip or marina).

In most cases the surveys were made at an altitude of 100 feet and at are airspeed of 80 KTS, and in all cases flights were made so that the observer could see the coastline on his right. Pelagic surveys ware conducted in the same manner but the elevation was increased to 400 feet and the air speed was increased to 120 KTS.

The pilot and the recorder were instructed to watch for turtles over open water. When a nest or turtle was identified, it was plotted on a chart. Using a small hand-held tape recorder, a record was made of the time of the sighting, the location, and the species and size of the turtle. The zone in which each nest or

turtle was observed also was recorded. It was possible to record all of this data in the plane because of the small number of turtles and nests which were observed on each of the survey flights.

Ground Truthing: Visits were made to many of the beaches where turtle nests had been observed from the air. Most of the visits were made by boat, and the observers walked the entire length of the beaches. In addition to recording nesting activity and other features of interest (i.e.. vegetation type), sand samples were collected for later analysis and comparison.

Research of Local Records: One day was spent on Grand Caicos talking with government officials about local information on sea turtles (i.e., laws, local statutes, records of catches).

Interviews with Fishers: Four local fishermen were interviewed to gain some additional useful information for this report. Interviews were conducted according to the Questionnaire found in the Manual of Sea Turtle Research and Conservation Techniques (pp. 81-91).

Turtle Fishing: One day was spent turtle fishing. This involved actually participating in a turtle hunt and provided a great deal of useful information on size, numbers, and techniques of turtle fishing in the Turks and Caicos Islands.

RECOMMENDATIONS

Based on the findings of the 1982 survey, the following recommendations would make a significant contribution to the survival of the sea turtles inhabiting the waters of the Turks and Caicos Islands.

1. Actively enforce the marine turtle protection act.
2. Prohibit the taking of hawksbill sea turtles during lobster season.
3. Restrict the taking of sea turtles except for local consumption.
4. Establish major nesting beaches as natural marine sanctuaries and restrict pedestrian traffic on the sanctuaries from April l through September.
5. Establish artificial hatchery for relocating endangered nests using the W.A.T.S. Sea Turtle Conservation Manual as a guideline.
6. Establish a "headstart" program aimed at revitalizing local sea turtle populations.
7. Develop a public education program for the Turks and Caicos Islands involving the government, local hotels, library, public school system and the PRIDE Foundation, which stresses the need to manage the sea turtle population so that its continued survival can be guaranteed.
8. Continue the tagging program initiated in July 1982 and intensify the research effort to learn more about the natural history (by species) of turtles inhabiting the area.

TABLE 1. GEOGRAPHIC INVENTORY

Length of Coastline*	212.2 Km
Km^2 of Continental Shelf Area	
Seaward Extent of Jurisdictions	
Territorial Sea	321.9 Km**
Extended Economic Zone	321.9 Km**
Fisheries Jurisdiction	321.9 Km**
Other (Describe)	

* Coastline length is the measurement of the national seaward boundary of a country; i.e., the distance from border to border for a coastal country and the distance around an island country.

** *Editor's note (2009):* Values in the original National Report were listed in miles (200). The Editor converted them to kilometers.

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

	Km of Shoreline		
Marine Shoreline Characteristics*	Undeveloped	Developed**	Total
1. Sand Beach (Total)	42.5	10.0	52.5
A. High Energy	22.0	6.0	28.0
B. Low Energy	20.5	4.0	24.5
2. Reef (exposed)	10.0	0.0	10.0
3. Rocks	15.0	2.0	17.0
4. Cliffs	0.0	0.0	0.0
5. Vegetation (Total)	100.2	***0.5	100.7
A. Vines	0.0	0.0	0.0
B. Grasses	0.0	0.0	0.0
C. Mangroves	100.2	0.0	100.2
D. Coconut Trees	0.0	0.5	0.5
E. Other Trees or Shrubs	0.0	0.0	0.0
F. Marshes	0.0	0.0	0.0
6. Mouths of Lagoons, Rivers, Canals	30.0	1.5	31.5
7. Total Shoreline	***197.7	14.0	***211.7

* Refer to SEA TURTLE MANUAL (Aerial Survey)
** Human development or use (See MANUAL)
*** *Editor's note (2009):* Totals corrected from values listed in the original National Report to reflect accuracy in summed values

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES (supplementary page)

Habitat Bottom Types	Km^2 of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	375	900
2. Mud	225	?
3. Rocks	25	?
4. Submerged Vegetation	250	300-900
5. Reefs (Total)	200	300-400
A. Fringing Reefs	80	250
B. Patch Reefs	20	50
6. Other		

TABLE 3. NESTING BEACH INVENTORY

List beaches in geographic sequence. Provide additional information on following page.

Name of Beach	Length in meters	Species Nesting (use abbreviations)*	Months of Recorded Nesting
1. Big Ambergris Cay	600	Cm ? **, E	April, May, June, July, August
2. Big Sand Cay	900	E	April, May, June, July, August
3. Bush Cay	100	E ?	
4. Cotton Cay	100	E ?	
5. East Caicos Island	8,000	Cc, Cm, E	April, May, June, July, August
6. East Cay	210	E	April, May, June, July, August
7. Fish Cay	300	Cm ?, E	April, May, June, July, August

TABLE 3. NESTING BEACH INVENTORY			
List beaches in geographic sequence. Provide additional information on following page.			
Name of Beach	Length in meters	Species Nesting (use abbreviations)*	Months of Recorded Nesting
8. French Cay	400	Cc ?, Cm, E	April, May, June, July, August
9. Gibb Cay	120	Cm ?, E ?	
10. Grand Caicos Island	6,000	Cc ?, Cm, E	
11. Grand Turk Island	2,500	Cc ?, Cm ?, E	April, May, June, July, August
12. Nighes Cay	300	Cc ?, Cm, E	April, May, June, July, August
13. Horse Cay	20	E ?	
14. Little Ambergris Cay	1,200	Cm ?, E ?	
15. Long Cay (East Caicos)	400	E ?	
16. North Caicos Island	1,500	Cc ?, Cm ?, E	April, May, June, July, August
17. Parrot Cay	1,400	Cc ?, Cm ?, E	April, May, June, July, August
18. Pine Cay	2,000	Cc ?, Cm, E	April, May, June, July, August
19. Providenciales	2,000	Cc ?, Cm ?, E	April, May, June, July, August
20. Salt Cay	900	Cc ?, Cm ?, E ?	
21. Sand Bore Cay	400	Cm ?, E ?	
22. Shot Cay	150	Cm ?, E ?	April, May, June, July, August
23. South Caicos Island	1,600	Cs, ?, Cm ?, E	April, May, June, July, August
24. Stubbs Cay	900	E	April, May, June, July, August
25. Water Cay	1,600	Cc ?, Cm ?, E	April, May, June, July, August
26. West Caicos Island	3,000	Cc ?, Cm, E	April, May, June, July, August
27. West Sand spit	350	Cc ?, Cm, E ?	
28. White Cay	50	E	April, May, June, July, August

Species*	Abbreviation
Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	D
Eretmochelys imbricata	E
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

** Question marks (?) represent unconfirmed reports.

TABLE 3A. NESTING BEACH INVENTORY (supplementary page)

Please give additional information about each nesting beach identified in Table 3. Include information on color of sand, particle size, beach profile, backbeach vegetation, artificial lighting, etc.

Refer to TABLE 3A.1 to 3A.21 for supplementary data on beaches.[2]

[2] *Editor's note (2009):* Original document included 24, 3A Supplemental Tables. However, three were duplicates and contained identical information; they were not included in the following list. The three duplicates include: Long Beach on East Caicos Island; East Cay Beach on East Cay; and Fish Cay Beach on Fish Cay.

TABLE 3A.1. Supplemental data on beaches	
Name of island	East Caicos Island
Name of beach	Long Bay Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Medium to fine grain carbonate beach. Moderate profile with vegetation and dune.
Level of human development and/or impact	Light
Estimated nesting activity	Regular (< 5)
General comments	One hawksbill (*Eretmochelys imbricata*) crawl observed on this beach. Other beaches may also have nesting but development on parts of the island limits this possibility.

TABLE 3A.2. Supplemental data on beaches	
Name of island	East Cay
Name of beach	East Cay Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Carbonate, medium to fine grains.
Level of human development and/or impact	None
Estimated nesting activity	Regular (< 5)
General comments	Possible nesting on east end of cay.

TABLE 3A.3. Supplemental data on beaches	
Name of island	Fish Cay
Name of beach	Fish Cay Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Carbonate, medium to fine, well sorted grains.
Level of human development and/or impact	None
Estimated nesting activity	Major (> 5)
General comments	A minimum of eight hawksbill (*Eretmochelys imbricata*) crawls were observed and a number of old body pits. Moderate beach profile with vegetation and small sand dune in back. Probably the most important nesting beach in the area.

TABLE 3A.4. Supplemental data on beaches	
Name of island	Big Ambergris Cay
Name of beach	NW Beach
Energy beach classification of beach	Low
Description of sand characteristics	White to tan, fine to medium grain well sorted carbonate.
Level of human development and/or impact	Light
Estimated nesting activity	Regular (< 5)
General comments	Low profile, highly vegetated beach suitable for nesting. One nest and one crawl observed during aerial survey; fishing camp on N.E. side of cay.

TABLE 3A.5. Supplemental data on beaches	
Name of island	Big Sand Cay
Name of beach	Big Sand Cay Beach
Energy beach classification of beach	Low

Description of sand characteristics	Tan, fine to medium grains, well-sorted, polished carbonate material.
Level of human development and/or impact	Light
Estimated nesting activity	Regular (< 5)
General comments	Although nests were not observed during aerial survey, this is an ideal beach for nesting. Moderate profile and well vegetated.

TABLE 3A.6. Supplemental data on beaches	
Name of island	Cotton Cay
Name of beach	Cotton Cay Beach
Energy beach classification of beach	Low
Description of sand characteristics	Carbonate, medium to fine grains.
Level of human development and/or impact	None
Estimated nesting activity	
General comments	Although no crawl observed during aerial survey, the lack of human habitation makes it a suitable beach for nesting. Also, two hawksbills (*Eretmochelys imbricata*) were observed just offshore.

TABLE 3A.7. Supplemental data on beaches	
Name of island	Long Bay
Name of beach	Sandy Point Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Unknown
Level of human development and/or impact	None
Estimated nesting activity	Regular (< 5)
General comments	Fishermen report hawksbill (*Eretmochelys imbricata*) nesting on this beach.

TABLE 3A.8. Supplemental data on beaches	
Name of island	North Caicos Island
Name of beach	Northeast Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Unknown
Level of human development and/or impact	Light
Estimated nesting activity	?
General comments	Possible nesting beach, but could not be confirmed by aerial survey. Fishermen report hawksbill (*Eretmochelys imbricata*) nesting.

TABLE 3A.9. Supplemental data on beaches	
Name of island	Parrot Cay
Name of beach	Northeast Beach
Energy beach classification of beach	Moderate.
Description of sand characteristics	Carbonate, medium, well sorted.
Level of human development and/or impact	Light
Estimated nesting activity	Regular (< 5)
General comments	Fishermen report possible hawksbill (*Eretmochelys imbricata*) nesting.

TABLE 3A.10. Supplemental data on beaches	
Name of island	Grand Caicos Island
Name of beach	Platico Point Beach
Energy beach classification of beach	Low
Description of sand characteristics	Fine grained, carbonate
Level of human development and/or impact	None
Estimated nesting activity	Incidental
General comments	Fishermen report nesting on this beach.

TABLE 3A.11. Supplemental data on beaches	
Name of island	Highas Cay
Name of beach	Highas Cay Beach
Energy beach classification of beach	High
Description of sand characteristics	Medium to coarse grain, carbonate well sorted, white to tan
Level of human development and/or impact	None
Estimated nesting activity	Major (> 5)
General comments	Steep profile, three small pocket beaches. Three body pits and one crawl observed. Fishermen report that Highas Cay is a major nesting beach.

TABLE 3A.12. Supplemental data on beaches	
Name of island	Little Ambergris Cay
Name of beach	East Beach
Energy beach classification of beach	Low
Description of sand characteristics	Carbonate, fine, well sorted grains
Level of human development and/or impact	None. Occasional fishing camp
Estimated nesting activity	Regular (< 5)
General comments	Fishermen report nesting on east side of Little Ambergris Cay. Low profile beach and well vegetated.

TABLE 3A.13. Supplemental data on beaches	
Name of island	Pine Cay
Name of beach	South Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Carbonate, medium grains, well sorted and well rounded. Tan with some shell fragments.
Level of human development and/or impact	Light
Estimated nesting activity	Incidental
General comments	Observations have been made of an occasional hawksbill (*Eretmochelys imbricata*) and green sea turtle (*Chelonia mydas*) nesting on this beach. Last nest observed was during the summer of 1981.

TABLE 3A.14. Supplemental data on beaches	
Name of island	Providenciales
Name of beach	North and West Beaches
Energy beach classification of beach	Moderate; Low
Description of sand characteristics	Carbonate, primarily fine, well-rounded and well-sorted grains.

Level of human development and/or impact	None; light; moderate
Estimated nesting activity	Regular (< 5)
General comments	No nests surveyed from the air, but fishermen report some nesting, species unknown. Long, narrow beaches, low profile, and some vegetation.

TABLE 3A.15. Supplemental data on beaches	
Name of island	Salt Cay
Name of beach	Salt Cay Beach
Energy beach classification of beach	Low
Description of sand characteristics	Unknown
Level of human development and/or impact	Light
Estimated nesting activity	Regular (< 5) ?
General comments	An extensive sand bank is situated in front of the beach. Water is brackish to almost fresh in the rainy season. Predominantly visited by *Chelonia mydas* (green turtles).

TABLE 3A.16. Supplemental data on beaches	
Name of island	Shot Cay
Name of beach	West Beach
Energy beach classification of beach	Low
Description of sand characteristics	Carbonate, fine grain sediment
Level of human development and/or impact	None
Estimated nesting activity	Regular (< 5) ?
General comments	Fishermen report hawksbill (*Eretmochelys imbricata*) nesting on this island.

TABLE 3A.17. Supplemental data on beaches	
Name of island	South Caicos Island
Name of beach	West Side Beach
Energy beach classification of beach	Moderate to low
Description of sand characteristics	Carbonate, light tan, medium to fine grain
Level of human development and/or impact	Light
Estimated nesting activity	Incidental
General comments	Fishermen report some nesting on this island; no reports of nesting during 1982 season.

TABLE 3A.18 Supplemental data on beaches	
Name of island	Stubs Cay
Name of beach	Stubs Cay Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Carbonate
Level of human development and/or impact	
Estimated nesting activity	Incidental
General comments	Unknown if nesting takes place on this cay.

TABLE 3A.19. Supplemental data on beaches	
Name of island	Water Cay
Name of beach	Water Cay Beach, north and south

Energy beach classification of beach	Moderate to low
Description of sand characteristics	Carbonate, light to medium grain, well sorted
Level of human development and/or impact	Light
Estimated nesting activity	Regular (< 5)
General comments	Ideal nesting beaches on north and south sides of the island. Fishermen report nesting.

TABLE 3A.20. Supplemental data on beaches	
Name of island	West Caicos Island
Name of beach	West and South Beach
Energy beach classification of beach	Moderate
Description of sand characteristics	Carbonate, light tan
Level of human development and/or impact	Light to moderate
Estimated nesting activity	Regular (< 5)
General comments	Fishermen report hawksbill (*Eretmochelys imbricata*) and possible green (*Chelonia mydas*) sea turtle nesting.

TABLE 3A.21. Supplemental data on beaches	
Name of island	White Cay
Name of beach	White Cay Beach
Energy beach classification of beach	Moderate to low
Description of sand characteristics	Tan, light to moderate, well sorted grains
Level of human development and/or impact	None
Estimated nesting activity	Regular (< 5)
General comments	One hawksbill (*Eretmochelys imbricata*) nest observed. Ideal beach, about 45 m long with moderate profile and some background vegetation.

TABLE 5. AERIAL BEACH SURVEY SUMMARY

Give any additional information available from aerial surveys. Information should include ground truth observation if conducted.

Date	Beaches Surveyed	Numbers of Nesting Tracks						
		Cc	Cm	D	E	Lk	Lo	No ID
July 07, 1982	Big Ambergris Cay				1			
	Bush Cay				1			
	East Calicos Island				1-27			
	East Cay				2			
	Fish cay				8			
	Grand Calicos, NW Beach		1					
	Highas Cay				4			
	Water Cay				1?			
	West Calicos Island, North Beach				1?			
	White Cay				2			

Species	Abbreviation
Caretta caretta	Cc
Chelonia mydas	Cm

TABLE 5. AERIAL BEACH SURVEY SUMMARY								
Give any additional information available from aerial surveys. Information should include ground truth observation if conducted.								
Date	Beaches Surveyed	Numbers of Nesting Tracks						
		Cc	Cm	D	E	Lk	Lo	No ID
Dermochelys coriacea	D							
Eretmochelys imbricata	E							
Lepidochelys kempi	Lk							
Lepidochelys olivacea	Lo							

TABLE 5A. AERIAL BEACH SURVEY SUMMARY (supplementary page)

Give any additional information available from aerial surveys. Information should include ground truth observation if conducted.

Aerial surveys were conducted according to the method described in WATS Sea Turtle Conservation Manual. Whenever possible a beach was surveyed a second time to confirm initial observations of crawls and nests.

TABLE 6. ESTIMATED POPULATION SIZE OF NESTING FEMALES							
Summarize the estimated number of nesting females for the years indicated and describe methods of estimation on the next page.							
Species	Year						
	1982	1981	1980	1979	1978	1977	Average Year Estimates
Caretta caretta	50 ± 25						
Chelonia mydas	75 ± 30						
Dermochelys coriacea							
Eretmochelys imbricata	200 ± 75						
Lepidochelys kempi							
Lepidochelys olivacea							

TABLE 6A. ESTIMATED POPULATION OF NESTING FEMALES (supplementary page)

Please give brief details on methods of estimation for Table 6.

Population estimates for *Caretta caretta* and *Chelonia mydas* are not made with a great deal of confidence. Estimates for these two species were based on individual observations made by local divers and fishermen.

Population estimates for *Eretmochelys imbricata* is made at a higher confidence level because aerial surveys confirmed number of nesting females observed by local fishermen and divers.

Estimates for all three species would be more reliable if aerial and “ground truth” surveys could be conducted systematically over the months of May and June.

TABLE 7. FORAGING AREAS INVENTORY

Name of Area (or give coordinates)	Approx. Area (Km^2)	Species Foraging (use abbreviations & approx. numbers) *	Nature of Evidence (observation, fishery, incidental catch)
1. Big Ambergris Cay, Little Ambergris Cay, & Fish Cay	40	Cm (juveniles and sub-adults), E (all sizes)	Aerial observations and interviews
2. Bottle Creek	12	Cm (juveniles and sub-adults)	Aerial observations, boat observations, local interviews
3. Highas Cay (Fringing reef)	8	Cm, E	Aerial observations, w/w observations, and interviews
4. Grand Turk, Gibbs Cay, Cotton Cay, East Cay, & Salt Cay	50	Cm, E	Aerial observations and interviews
5. Middle (grand) Caicos & North Caicos, South Side	250-300	Cm (juveniles and a few sub-adults), E (few)	Aerial observations, w/w observations, boat observations, interviews
6. Ocean Hole (Grand Caicos)	2	Cm (juveniles-adults)	Aerial observations, w/w observations, interviews, Meylan's Report

Species	Abbreviation
Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	D
Eretmochelys imbricata	E
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

* Data insufficient to make accurate population estimates.

TABLE 7A. Supplemental

Sample of 10 turtles taken from the Bottle Creek foraging habitat during the July 1982 survey.

Turtle Species	Tag #	Age	Weight (lbs.)	Carapace (Crv, Cm) Length/Width	Plastron (Crv, Cm) Length/Width	Total Tail (Crv, Cm)	Tail Pl to Col /Col to tip *
Green	NU980	Juvenile	11.0	26.5 x 32.0	29.5 x 27.0	6.6	4.0/2.3
Green	NU979	Juvenile	23.0	45.0 x 40.0	35.5 x 32.0	6.0	4.0/2.0
Green	KU978	Juvenile	13.0	32.0 x 27.0	26.5 x 24.0	5.2	3.2/2.1
Green		Juvenile	-	47.0 x 40.5	37.5 x 33.0	6.9	4.2/2.5
Green		Juvenile	-	42.0 x 37.5	32.0 x 29.5	5.8	4.1/1.5
Green		Juvenile	18.0	43.0 x 38.0	35.5 x 31.0	6.5	3.9/2.0
Green		Juvenile	16.5	43.0 x 37.5	34.0 x 29.5	6.0	4.0/2.0
Green		Juvenile	17.5	43.5 x 39.0	35.5 x 30.0	5.25	3.25/2.0
Green		Juvenile	11.0	40.5 x 36.0	32.0 x 29.0	6.5	4.0/2.5
Green		Sub-adult	80.0	71.0 x 63.0	56.0 x 48.0	11.0	5.5/4.25

* *Editor's note (2009)*: There is no explanation for this abbreviation ("Tail Pl to Col/Col to tip"), nor any definition given for this measurement; it's possible that we mis-interpreted the original text.

TABLE 7B. OBSERVATIONS OF TURTLES IN FORAGING HABITATS MADE DURING THE JULY 1982 AERIAL SURVEY (supplemental)

Date	Species	Habitat Type	Size Class	Water Depth (M)	Distance from shore (M)	Location
7/07/1982	E	Fringe reef	Juvenile	8	50	S.E. side of Salt Cay
7/07/1982	E	Fringe reef	Juvenile	10	75	S.E. side of Salt Cay
7/07/1982	Cm	Grass flat	Juvenile	4	100	Little Ambergris, S.
7/07/1982	Cm	Shallow reef	Juvenile	5	100	Big Ambergris, S.E.
7/07/1982	Cm	Grass flat	Juvenile	5	75	East Caicos, W
7/07/1982	E	Patch reef	Juvenile	15	200	South Caicos
7/07/1982	?	Clear bottom	Juvenile	15	50	Pine Cay
7/09/1982	E	Fringe reef	Juvenile	10	100	West Caicos
7/09/1982	Cm	Grass flat	Juvenile	4	50	Little Water Cay
7/09/1982	Cm	Grass flat	Juvenile	4	55	Little Water Cay
7/09/1982	Cm	Tidal creek	Juvenile	3	5	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	3	5	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	2	4	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	5	5	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	5	12	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	5	10	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	5	10	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	2	8	North Caicos
7/09/1982	Cm	Tidal creek	Juvenile	2	5	North Caicos
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	E	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	?	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.

TABLE 7B. OBSERVATIONS OF TURTLES IN FORAGING HABITATS MADE DURING THE JULY 1982 AERIAL SURVEY (supplemental)						
Date	Species	Habitat Type	Size Class	Water Depth (M)	Distance from shore (M)	Location
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	?	Ocean Blue Hole	Juvenile	10-200+	1,000	Grand Caicos, S.
7/10/1982	Cm	Deep water reef	Adult	100	500	Grand Caicos, N.
7/10/1982	Cc	Deep water reef	Sub-adult	120	600	Grand Caicos, N.
7/10/1982	?	Mid-water reef	Juvenile	50	200	Parroy Cay, N. end
7/10/1982	Cm	Fringing reef	Juvenile	20	100	W. Caicos, S. end
7/10/1982	?	Fringing reef	Juvenile	25	150	W. Caicos, S. end
7/10/1982	?	Fringing reef	Juvenile	20	20	French Cay
7/10/1982	Cm	Grass flat	Juvenile	2	10	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	10	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	12	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	12	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	12	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	15	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	10	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	10	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	Cm	Grass flat	Juvenile	2	8	Bottle Ck., btw. N. Caicos & Grand Caicos
7/10/1982	E	Grass flat next to reef	Juvenile	4	12	Highas Cay
7/10/1982	Cm	Fringing reef	Juvenile	5	20	Highas Cay
7/10/1982	Cm	Grass flat	Juvenile	2	12	Bottle Ck

TABLE 7B. OBSERVATIONS OF TURTLES IN FORAGING HABITATS MADE DURING THE JULY 1982 AERIAL SURVEY (supplemental)

Date	Species	Habitat Type	Size Class	Water Depth (M)	Distance from shore (M)	Location
7/10/1982	Cm	Grass flat	Juvenile	2	12	Bottle Ck.
7/10/1982	Cm	Grass flat	Juvenile	2	10	Bottle Ck.
7/10/1982	Cm	Grass flat	Juvenile	2	10	Bottle Ck.
7/10/1982	Cm	Grass flat	Juvenile	2	20	Bottle Ck
7/10/1982	Cm	Fringing reef	Juvenile	5	2	Bottle Ck
7/10/1982	Cm	Grass flat	Juvenile	2	8	Bottle Ck
7/10/1982	Cm	Grass flat	Juvenile	2	30	Bottle Ck.
7/10/1982	Cm	Grass flat	Juvenile	2	10	Bottle Ck.
7/10/1982	E	Fringing reef	Juvenile	2	150	Pine Cay, N. end
7/10/1982	Cm	--?-- reef	Adult	40	--?--	Blue Hills

Editor's note (2009): " --?-- " indicates an indecipherable word or value.

TABLE 8. TURTLE SPECIES PRESENT ON FORAGING AREAS.

Please complete one of these tables for each of the areas identified in Table 7. Number each table as enumerated in Table 7 (7-1, 7-2, etc.).

Species	Month												Months of Greatest Activity
	J	F	M	A	M	J	J	A	S	O	N	D	
Caretta caretta				X	X	X	X						April, May
Chelonia mydas				X	X	X	X	X					April, May, June
Chelonia mydas	X	X	X	X	X	X	X	X	X	X	X	X	
Dermochelys coriacea													
Eretmochelys imbricata	X	X	X	X	X	X	X	X	X	X	X	X	April, May, June
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 10. NATURAL MORTALITY

Life Stage Unit	Species (abbrev.)*	Causes**	Extent of Mortality (% of unit)
Nests/eggs	Cc, Cm, E	Human poaching, crabs, vegetation roots, storm erosion	50
Hatchlings	Cc, Cm, E	Avian predators (especially frigate birds) & marine predators	?
Juveniles	Cm, E	Human poaching and marine predators (primarily sharks)	20-40
Adults (in water)	Cm, E	Human poaching, incidental capture while fishing	?
Nesting females	Cc, Cm, E	Human poaching	20-30

Species*	Abbreviation
Caretta caretta	Cc
Chelonia mydas	Cm

Dermochelys coriacea	D
Eretmochelys imbricata	E
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo
** Natural mortality causes may include: Beach erosion of nests; egg and/or nestling predation by crabs, wild animals, seabirds, etc.; disease; sharks and other predators at sea, etc.	

TABLE 10A. NATURAL MORTALITY (supplementary page for additional biological data)

Please report below, and on additional pages, if necessary, additional data obtained or available such as measurements (length, width, weight) of adult females, adult males, hatchlings, numbers of eggs per nest, hours of nesting, hours and conditions of hatchlings, etc.

There is no data available on the subject of natural mortality. During the July survey of the Turks and Caicos Islands no strandings were observed.

TABLE 11. LANDING SITES FOR TURTLES AND TURTLE PRODUCTS

Name of Port or Site	Species Landed (use abbrev)	Fishing Gear Used	Months of Landings	Numbers & Weights (estimate)
1. Cockburn Town, Grand Turk	Cm, E	Nets and capture from chasing down by boats	All year	?
2. Bottle Creek, North Caicos	Cm, E	Nets and capture from chasing down by boats	All year	?
3. South Caicos	Cm, E	Nets and capture from boats	All year	?
4. Salt Cay	Cm, E	Nets and capture from boats	All year	?
5. Conch Bar	Cm, E	Nets and capture from boats	All year	?
6. Kew	?	Nets and capture from boats	All year	?
7. Whitby	?	Nets and capture from boats	All year	?
8. Lorimers	?	Nets and capture from boats	All year	?

Species	Abbreviation
Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	D
Eretmochelys imbricata	E
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

TABLE 12. TOTAL ANNUAL TURTLE LANDINGS IN NUMBERS				
Do not include turtles caught incidental to other fishing operations (e.g., shrimp trawling)				
Species	1982	1981	1980	Method of Determination
Caretta caretta				
Chelonia mydas	800/4,000 kg			Interviews with native fishermen and observations made of turtle fishing during the 1982 July turtle survey.
Dermochelys coriacea				
Eretmochelys imbricata	50/400 kg			Interviews with native fishermen and observations made of turtle fishing during the 1982 July turtle survey
Lepidochelys kempi				
Lepidochelys olivacea				

TABLE 16. EMPLOYMENT DEPENDENT ON TURTLES			
Activity	Total Annual Numbers of Persons	Est. Annual Income From Turtles	Comments
Fishing	80 ± 10	$US 12,000 - 18,000	Income based on $1.00 per pound (live weight) obtained for turtles at local markets
Processing			Fishermen process their own catch
Selling			Fishermen sell their own catch

TABLE 16A. EMPLOYMENT DEPENDENT ON TURTLES (supplementary page)

In addition to marketed products, it is estimated that the following are taken annually from beaches or at sea for subsistence use:

A: Subsistence exploitation

1. Estimated number of eggs: 8,000-10,000
2. Estimated number of nesting females: 20-307
3. Number of turtles caught at sea: 200-400

Part-time fishermen usually keep one or two turtles for themselves and sell any excess turtles at local markets.

B: Social aspects

In addition to the described fishery activities, exploitation of turtles may be permitted in some countries according to special rights or privileges extended to certain groups of people. If such specialized turtle exploitation exists, please give details (i.e., beach rights, ethnic traditions, specific seasons of the year, special permits, etc.).

TABLE 18. PUBLIC AND PRIVATE INSTITUTIONS CONCERNED WITH TURTLE CONSERVATION/MANAGEMENT/UTILIZATION		
Institution or Organization Name And Address	No. of Active Members	Activities in Progress
PRIDE Foundation	8	Public education, dive surveys, tagging juveniles

TABLE 20. REGULATORY AUTHORITY			
Indicate all entities with statutory responsibilities (e.g., Fisheries Departments and Ministries, Police, Coast Guard, etc.)			
Name and Address of Organization	Budget Allocation to Turtles	No. of Staff Assigned to Turtles	Comments on Levels of Enforcement
Ministry of Fisheries	0	0	Although there are statutes prohibiting the taking of turtles by size, species, and time of year, there is virtually no legal enforcement. Refer to enforcement regulations on the next pages.

TABLE 20A. REGULATORY AUTHORITY (supplementary page)

Please list National, regional, and local legislation concerning turtle management and conservation. List title, date, and stated purpose.

Part IV

Enforcement

16. Powers of a Fisheries Officer

Without prejudice to any other powers conferred upon a fishery officer by these Regulations, the Fishery Limits (Turks and Caicos Islands) Ordinance 1969, or any other law for the time being in force, for the purpose of preventing the commission of offences under these Regulations and the apprehension of persons committing any such offences, a fishery officer shall be deemed to have the powers of a police officer.

17. Search Warrants

(1) If a Magistrate or Justice of the Peace is satisfied by information on oath that there are reasonable grounds for suspecting than an offence against these Regulations has been, is being or is about to be committed and that the evidence of the commission or intended commission of such offence is to be found at any premises or in any vessel specified in such information, he may grant a search warrant authorizing a fishery officer, together with any other person named in the warrant, to search premises or vessel at any time within one month from the date of the warrant, using such force as may be reasonably necessary if entry to such premises or vessel is refused or cannot otherwise be obtained.

(2) Any person acting under the authority of a search warrant issued in the pursuance of this regulation may search any person who is found on, or whom he has reasonable grounds for believing has recently left or is about to enter such premises or vessel, as the case may be, and may seize any marine products or apparatus found in such premises or vessel, or upon such person, which he has reasonable grounds for believing to be evidence of the commission or intended commission of any offence against these Regulations:

Provided that a female shall only be searched by a female.

(3) Any person who obstructs the exercise of the powers conferred by a search warrant issued in pursuance of this regulation shall be guilty of an offence.

18. Seizure of Vessel, Gear, Apparatus

(1) Where a fishery officer has reasonable cause to suspect that any vessel, gear, or apparatus (of whatever kind) has been used in connection with the commission of an offence under these Regulations he may seize such vessel, gear or apparatus, as the case may be and hold the same until the determination of the proceedings in respect of that offence, unless the Magistrate on application made by the owner thereof, shall otherwise direct.

Provided that if proceedings in respect of such suspected offence are not brought within one month of such seizure the fishery officer shall forthwith release anything so seized.

(2) Where a fishery officer has reasonable cause to suspect that any marine product has been taken in contravention of these regulations and he proposes to bring proceedings for an offence he may seize and hold the same until such proceedings, but such marine product, if of a perishable nature, may be disposed of or otherwise dealt with prior to the determination of such proceedings in such manner as the Magistrate upon the application of the fishery officer or of the person against whom the proceedings are to be brought, may direct.

(3) Any person who destroys or attempts to destroy anything to prevent its seizure under the foregoing provisions of this regulation shall be guilty of an offence.

19. Forfeiture Upon Conviction

(1) Upon the conviction of any person for an offence under these Regulations the Magistrate's Court may take such order as the court thinks fit as regards the disposal of anything seized under the powers conferred by regulation 19, and may order the forfeiture of any property so seized or any other property used in the commission of the offence of which the accused person is convicted.

(2) Without any prejudice to any other power vested in the issuing authority, upon the conviction of a person who holds a licence, in respect of a third or subsequent offence, the issuing authority may suspend or revoke the licence held by that person.

20. Penalty for Interfering with Fishery Protection Equipment

Any person who damages or interferes in any way except for just and sufficient cause, with any vessel, gear or equipment (of whatsoever kind) used by any fishery officer for the purpose of carrying out his duties in the enforcement of the provisions of these Regulations, shall be guilty of an offence and liable on conviction to a fine of five thousand dollars or to imprisonment of twelve months, or to both such fine and imprisonment.

21. Trial and Punishment of Offenders

(1) All offences under these Regulations shall be triable summarily.

(2) Any person convicted of an offence for which no other penalty is provided under these Regulations shall be liable to a fine of one thousand dollars or to imprisonment of six months, or to both such fine and imprisonment.

REPORTS AND PUBLICATIONS

The following is a list of the major reports and publications concerned with national turtle resources (list author, date, title, and publisher).

Carr, A., Meylan, A., Mortimer, J., Bjorndal, K., and Carr, T. 1982. Caicos Islands. Preliminary Survey of Marine Turtle Populations and Habitats in the Western Atlantic. NOAA Technical Memorandum NMFS-SIFC, pp 35-36.

ACKNOWLEDGEMENT

Members of the PRIDE Foundation made a major contribution to this report and to the July 1982 data gathering survey. Special thanks to Mr. Chuck Nesse and Gary Hodgkins, members of this Foundation, for their help and friendship. Also Mr. Dennis Frazle and Brent Mitchel deserve special thanks for assisting in collecting much of the data which appears in the contents of this report. Mr. Fred Berry and Professor Archie Carr were a major stimulus to this project by providing their wisdom and encouragement. Other members of the WATS Steering Committee and technical team also deserve acknowledgement for their devotion and dedication to this project. Finally I wish to thank Jan Kitte for her editorial skills and to all the individuals living in the Turks and Caicos Islands for their hospitality and for taking an active interest in sea turtle conservation and research.

THE NATIONAL REPORT

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FOR THE COUNTRY OF

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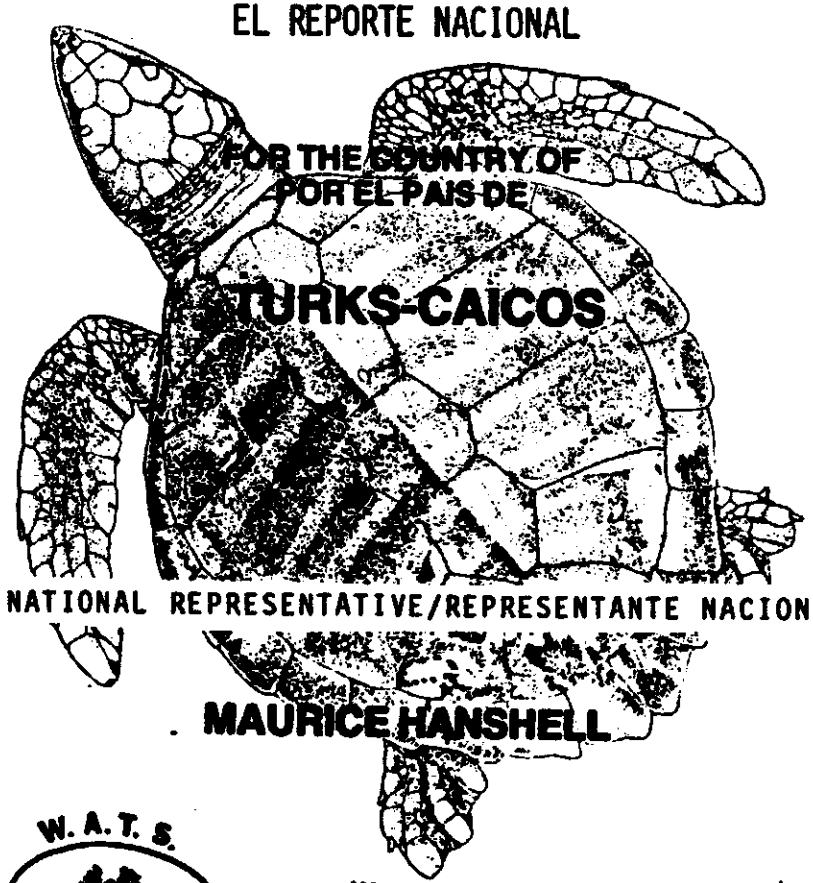
TURKS-CAICOS



NATIONAL REPRESENTATIVE/REPRESENTANTE NACIONAL

MAURICE HANSHELL

W. A. T. S.

S. T. A. O.

Western Atlantic Turtle Symposium

Simposio de Tortugas del Atlantico Occidental

17-22 July/Julio 1983

San Jose, Costa Rica

W. A. T. S.

S. T. A. O.

WESTERN ATLANTIC TURTLE SYMPOSIUM

San Jose, Costa Rica

July 1983

NATIONAL REPORT FOR THE COUNTRY OF

TURKS & CAICOS ISLANDS

NATIONAL REPORT PRESENTED BY

Maurice Hanshell

The National Representative

Address: Permanent Secretary, Ministry of Agriculture, Department of Fisheries and Agriculture

Grand Turk, TURKS AND CAICOS, WI

NATIONAL REPORT PREPARED BY

John Robert Fletemeyer, Nova University Oceanographic Center, 8000 North Ocean Drive, Dania, Florida 33004

DATE SUBMITTED: 1 September 1982

! Please submit this NATIONAL REPORT no later than 1 December 1982 to: IOC Assistant Secretary for IOCARIBE, % UNDP, Apartado 4540. San Jose, Costa Rica.

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

INTRODUCTION

Beginning 7 July 1982 a seven-day sea turtle socio-economic and nesting survey study of the Turks and Caicos Islands was conducted. The purpose of this study was to collect data to complete a national report of this area for the Western Atlantic Turtle Symposium (W.A.T.S.) to be held in July 1983 in San Jose, Costa Rica. The data for the report was collected using the following objectives as a guideline.

1. Conduct surveys of all the marine shoreline within the British territory known as the Turks and Caicos Islands.

   a) Record the types of shoreline present -- for the purpose of recording actual or potential sea turtle nesting beaches (so that subsequent surveys can be more time- and cost-effective), and to document the kinds and amounts of shoreline throughout the area.

   b) Record all signs of sea turtle tracks and nests or nesting beaches -- for the purpose of developing a comprehensive index of the extent of sea turtle nesting activity, including updated data on prior known concentrations, determination of extent of dispersed nesting activity, and determination of any prior unrecorded nesting sites.

2. Compile data of all kinds to determine the status of sea turtle populations.

3. Review present conservation and management programs related to sea turtles.

4. Determine socio-economic importance of sea turtles.

5. Make recommendations to help promote the survival status of sea turtle populations inhabiting the territorial waters of the British Virgin Islands.

BACKGROUND

General Geographic Description of the Turks and Caicos Islands

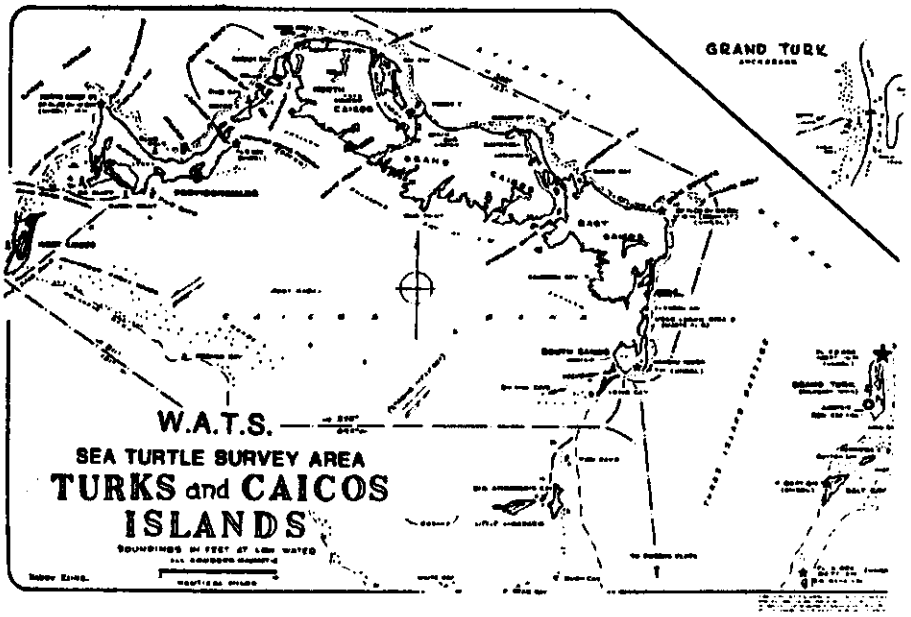
The Turks and Caicos Islands represent a British Crown Colony. The colony consists of two groups of islands at the southern extremity of the Bahamas chain lying between 21° and 22° North and 71° and 72° West (refer to Fig. 1).

The Turks and Caicos Islands consist of eight inhabited islands and many uninhabited islands. These islands have a total land area of 165 square miles; North Caicos and Middle Caicos have the largest land areas.

Population estimates for these islands vary, but the 1970 census reveals that it is 5,857 (Sadler 5:2). During the last decade or so the population of these islands has been declining, due to primarily the emigration of people to Freeport and other areas of the Bahama Islands. The breakdown of the 1970 census is as follows:

Grand Turk	2,335	Kew	290
Salt Cay	350	Whitby	52
Conch Bar	155	Sandy Point	64
Bambarra	123	Blue Hills	362
Lorimers	102	The Bight	114
Kettle Creek	601	Five Cays	82
South Caicos	1,032		

The Turks and Caicos Islands may be considered part of the Bahames. In terms of terrain and vegetation these islands are comparable to Great Inagua and Mayaguana. The drier islands of Grand Turk, Salt Cay, South Caicos and East Caicos resemble Great Inagua; Middle Caicos, North Caicos and Providenciales resemble Mayaguana. The latter has sufficient rainfall to support a moderate state of coppice vegetation.



water tidal flats predominate. In most cases, the water is about one meter deep and grass beds (consisting of Thalassia and Syringodie) occupy the bottom. Grass vegetation is common on the bottom of most of the tidal creeks; however, some of the creek bottom has not been colonized by vegetation because of extensive siltation. Much of this exposed bottom is blanketed by jellyfish.

Farther south is the Caicos bank, which extends 20 to 40 miles south of the island chain. On the windward side of many islands are spectacular fringing reefs which range between 5 meters and 20 meters in depth. Here there are rich and spectacular populations of reef fish and hard corals. Occasionally, farther away from shore some "patch" reefs may be found.

One unusual submarine feature worth mentioning is the "Ocean Hole." A dive and two aerial surveys of this feature (conducted during the July 1982 survey) revealed that the hole is about 1 kilometer in diameter. The rim is located in about 4 meters of water and then descends perhaps a hundred meters or more almost straight to the bottom. The water is extremely turbid with visibility of 10 meters at the surface dropping down to almost nil at 80 meters. Although there are large populations of reef and pelagic fish as well as large numbers of green sea turtles (mainly juveniles) in the Ocean Hole, there is a conspicuous absence of hard corals.

A History of Sea Turtles in the Turks and Caicos Islands

Green sea turtles were an important factor in the colonization of the American tropics because they were abundant, easy to keep alive for months, and represented an important protein source. There are reports from the time of the Spanish exploration until the late nineteenth century of ships stopping to replenish their stores with water and turtles in the Turks and Caicos Islands. Unfortunately the number of turtles taken and the relative

Coastline and Offshore Areas

The coastline of the Turks and Caicos Islands varies greatly. On the north side there are long stretches of moderate to high-energy beaches. Typically these beaches have a moderately sloping beach profile which is usually well vegetated about 10 meters above the high tide line. The vegetation consists of sea grapes, saltbush, purslane, beach morning glory, and buttonwood. Similar but much shorter beaches are found on many of the small, offshore cays located to the east and south.

Laboratory analyses of sand collected from many of the beaches reveal that the sands are carbonate in origin. The sand is usually medium grained and well-sorted. However, a few beaches have predominately fine-grained sediments. The color, according to Menzel's color scheme, is white to light tan.

In addition to long stretches of sandy beach there are areas of coastline on the windward side of the islands that are extremely rocky. Well-stratified sandstone areas have been exposed by wind and hydraulic erosional forces.

A completely different description is applied to much of the southern coastline. Here vast communities of mangroves are common. Extensive tidal swamps with long meandering tidal creeks sometimes stretch more than 4 kilometers inland.

Only Middleton Cay does not fit the above description. This .5 kilometer island apparently was built from the gradual accumulation of conch shells which fishermen have left for countless decades (Hodgkins, personal communication).

The offshore areas bordering the Turks and Caicos Islands are quite diverse. On the south sides of many of the islands vast expanses of shallow-

abundance of turtles is unknown. The earliest record on this subject is from 1906. During that year the Turks exported $3,538.00 worth of Hawksbill turtle shell (Sadler, 1972:37). In 1907, the local sea turtle industry reached its peak and during the same year the government passed the Turtle Protection Ordinance, which protected turtles from poaching by fishermen from the Bahamas and other nearby islands. In 1909, the Caicos Development Company leased Chalk Sound for raising and canning turtles. Although the sea turtle industry became quite large during the first decade of this century, it gradually declined to nil by 1930. Although the reasons for this decline are unknown, presumably a decline in the population of these animals and a lessening demand for turtle products were responsible.

Although there has never been a resurgence in the turtle industry, there is still a keen interest in these animals among the local island population. There is a rich oral tradition in which the turtle is frequently mentioned. Today there are only a few "halftime" turtle fishermen on the island and perhaps about seventy fishermen who will take a turtle when the opportunity presents itself. Virtually all turtles are consumed locally and can be found in markets only sporadically but on a year-round basis.

Based on the July 1981 survey, it is estimated that about 850 turtles are caught annually. Most of these turtles are juvenile green sea turtles which weigh between two and eight kg. Some hawksville, (juvenile to adult-size) are taken incidentally during lobster season and occasionally a loggerhead or an adult green will be taken when encountered by fishermen on deepwater reefs. Based on the results of the survey, fishing pressure at this level does not seem to pose a serious threat to the survival of the sea turtle population in the waters off the Turks and Caicos Islands

Status of the Knowledge of Sea Turtles

Very little is known about the sea turtle populations that inhabit the Turks and Caicos Islands. This is due to the lack of any government records and to the lack of systematic studies of these animals. What is known comes from two sources: incidental observations of local divers and fishermen and a survey conducted by Anne Meylan in 1979 (NMFS Technical Memorandum, 1979, 36-36).

Information from these two sources indicate that there is no concentrated nesting by any species in the islands. The July 1983 survey confirmed this belief; however, a few beaches were found on which a large number of crawls could be identified. Most of these crawls belonged to hawksbill sea turtles but a few belonged to green sea turtles. No crawls belonging to leatherbacks or loggerheads were observed. However, David Winn (personal communication), one of the most active turtle fishermen in the area, is certain that loggerhead sea turtles do occasionally nest there. He has also observed turtles nesting in the daytime!

There are some reports of "Bastard" and "Mulatto" turtles in the Turks and Caicos Islands, but the reports are conflicting. Meylan also reported mention of "Mulatto" turtles during her 1979 survey. It is probable that these are "folk" names for loggerheads. However, the possibility that these names might be used to refer to "ridleys" cannot be completely discounted.

Local fishermen also mention a large population of juvenile green sea turtles present in the tidal creeks on the south side of Middle Caicos and North Caicos Islands. Both aerial and boat surveys confirmed this belief. During the 1982 observation, a large number of juvenile green sea turtles in the channels were seen in most of these creeks (refer to Table 7A). Some sightings of juvenile greens were made almost four kilometers inland. A

special collecting survey that involved capturing a representative sample of these animals indicated that they were in the 3 KG to 10 KG size range. Smaller and larger greens were not encountered in the creeks during these surveys. A stomach content analysis made from a selected number of juvenile greens revealed that these animals were subsisting on turtle grass (Thalassia), although other materials were present but which could not be positively identified.

Larger greens as well as a wide size range of hawksbills were observed in deep water. Most sightings of hawksbills were made on fringing and patch reef where coral was abundant. Only one juvenile hawksbill was encountered on a grass bed. During the aerial surveys only one loggerhead sea turtle could be positively identified. This animal was a juvenile swimming over a deep-water reef in about 100 meters of water.

A larger number of green sea turtles and one hawksbill were observed in the Ocean Hole during two aerial surveys. All of these sightings were of juvenile animals. Meylan also reports sighting some large green turtles in the Ocean Hole. Local interviews with native fishermen indicated that a large number of turtles have been attracted to this area.

Information on seasonality and migratory patterns of turtles for this area are nonexistent. However, it is possible to say with some degree of confidence that nesting occurs between the months of April and August with the heaviest nesting month being May. Some fishermen report that adult greens are more common in the spring and that hawksbills of all ages and juvenile greens are seen year-round. There have been no observations of hatchings. Meylan reports an interview with a local fisheries officer who has observed a seasonal movement of leatherbacks past Drum Point in East Caicos. No collaborating observations of this nature could be found.

METHODS

To obtain the most accurate and comprehensive data on sea turtles and to prepare the national report for the Turks and Caicos Islands, this investigator employed five different strategies: (1) beach and pelagic aerial surveys, (2) visits to many of the beaches for the purpose of "ground truthing", (3) researching governmental records, (4) conducting personal interviews with local fishermen, and (5) participating in turtle fishing with native fishermen.

Aerial Surveys: A total of 9.1 hours were spent conducting aerial surveys. A Cessna 172 was used to conduct these surveys the entire coastline of the Turks and Caicos Islands was flown over at least once. These surveys were conducted according to the method described in the Manual of Sea Turtle Research and Conservation Techniques (pp. 43-64). Before each flight, each large island to be surveyed was divided into zones which were usually defined by a major geomorphological coastal feature (i.e., the mouth of an estuary or a large rock easily identified on a chart) or some kind of human architecture (i.e., an airstrip or marina). In most cases the surveys were made at an altitude of 100 feet and at an airspeed of 80 KG, and in all cases flights were made so that the observer could see the coastline on his right. Pelagic surveys were conducted in the same manner but the elevation was increased to 400 feet and the air speed was increased to 120 KTS. The pilot and the recorder were instructed to watch for turtles over open water. When a nest or turtle was identified, it was plotted on a chart. Using a small hand-held tape recorder, a record was made of the time of the sighting, the location, and the species and size of the turtle. The zone in which each nest or turtle was observed also was recorded.

It was possible to record all of this data in the plane because of the small number of turtles and nests which were observed on each of the survey flights.

Ground Truthing: Visits were made to many of the beaches where turtle nests had been observed from the air. Most of the visits were made by boat, and the observers walked the entire length of the beaches. In addition to recording nesting activity and other features of interest (i.e., vegetation type), sand samples were collected for later anlaysis and comparison.

Research of Local Records: One day was spent on Grand Caicos talking with government officials about local information on sea turtles (i.e., laws, local statutes, records of catches).

Interviews with Fishermen: Four local fishermen were interviewed to gain some additional useful information for this report. Interviews were conducted according to the questionnaire found in the Manual of Sea Turtle Research and Conservation Techniques (pp. C1-91).

Turtle Fishing: One day was spent turtle fishing. This involved actually participating in a turtle hunt and provided a great deal of useful information on size, numbers, and techniques of turtle fishing in the Turks and Caicos Islands.

RECOMMENDATIONS

Based on the findings of the 1982 survey, the following recommendations would make a significant contribution to the survival of the sea turtle inhabiting the waters of the Turks and Caicos Islands.

1. Actively enforce the marine turtle protection act.
2. Prohibit the taking of hawksbill sea turtles during lobster season.
3. Restrict the taking of sea turtles except for local consumption.
4. Establish major nesting beaches as natural marine sactuaries and restrict pedestrian traffic on the sanctuaries from April through September.

5. Establish an artificial hatchery for relocating endangered nests using the W.A.T.S. Sea Turtle Conservation Manual as a guideline.
6. Establish a "head-start" program aimed at revitalizing local sea turtle populations.
7. Develop a public education program for the Turks and Caicos Islands involving the government, local hotels, library, public school system, and the PRIDE foundation, which stresses the need to manage the sea turtle population so that its continued survival can be guaranteed.
8. Continue the sea turtle tagging program initiated in July 1982 and intensify the research effort to learn more about the natural history (by species) of turtles inhabiting the area.

Country Turks and Caicos Islands

Length of Coastline* . . . . . 212.2 Km

Km² of Continental Shelf Area . . . . . ____ Km

Seaward Extent of Jurisdictions:

Territorial Sea . . . . . 200 Miles

Extended Economic Zone . . . . . 200 Miles

Fisheries Jurisdiction . . . . . 200 Miles

Other (Describe) _____ . . . ____ Km

TABLE 1. GEOGRAPHIC INVENTORY

* Coastline length is the measurement of the national seaward boundary of a country; i.e., the distance from border to border for a coastal country and the distance around an island country.

NAME OF ISLAND	APPROXIMATE LENGTH OF COASTLINE (KM)	APPROXIMATE LENGTH OF SUITABLE NESTING BEACH (METERS)
Big Ambergris Cay	3.9	600
Big Cameron Cay	.8	0
Big Cay	.3	0
Big Sand Cay	1.9	900
Big Southern Bush	1.2	0
Bush Cay	.4	220
Cotton Cay	2.1	100
East Caicos	24.0	8,000
East Cay	1.1	210
Fish Cay	.8	450
French Cay	.9	300
Ft. George Cay	2.8	400
Gibb Cay	.3	120
Grand Caicos	29.0	6,000
Grand Turk	11.0	2,500
Highas Cay	2.1	330
Horse Cay	.2	20
Joe Grant's Cay	6.2	0
Little Ambergris Cay	3.8	1,200
Long Cay (Grand Turk)	2.4	0
Long Cay (East Caicos)	2.5	400
Mary Cays	.4	0
Middleton Cay	9.8	100
Middle Creek Cay	1.0	?
North Caicos	21.0	1,500
Parrot Cay	6.4	1,400
Pear Cay	.4	0
Pennisten Cay	.8	?
Pine Cay	5.8	2,000
Providenciales	17.4	2,400
Round Cay	.5	0
Sail Rock Island	.5	0
Salt Cay	4.5	900
Sand Bora Cay	.8	400
Seal Cays	.7	0
Shot Cay	.2	150
Six Hills Cay	.4	0
South Caicos	9.2	1,600
Stubbs Cay	2.5	900
Water Cay	5.6	1,600
West Caicos	12.2	3,000
West Sand Spit	.5	350
White Cay	.4	50
TOTAL	212.2 KM	52,470 M (52.5 KM)

Table 1 A: Summary of total coastline of islands and cays located in the Turks and Caicos Islands and estimation of total length of beaches suitable for sea turtle nestig. Estimates made from aerial surveys conducted between 7 July and 14 July 1982.

MARINE SHORELINE CHARACTERISTICS*	Km OF SHORELINE		
	UNDEVELOPED	DEVELOPED**	TOTAL
1. Sand Beach (Total)	42.5	10	52.5
A. High Energy	22.0	6	28.0
B. Low Energy	20.5	4	24.5
2. Reef (exposed)	10.0	0	10.0
3. Rocks	15.0	2	17.0
4. Cliffs	0	0	0
5. Vegetation (Total)	100.2	0	100.2
A. Vines	0	0	0
B. Grasses	0	0	0
C. Mangroves	100.2	0	100.2
D. Coconut Trees	0	.5	.5
E. Other Trees or Shrubs	0	0	0
F. Marshes	0	0	0
6. Mouths of lagoons, rivers, canals	30.0	1.5	31.5
7. Total Shoreline	198.2	14.0	212.2

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

* Refer to SEA TURTLE MANUAL (Aerial Survey)
** Human development or use (See MANUAL)

HABITAT BOTTOM TYPES (Estimated)	km^2 OF HABITAT	
	INSIDE 25m (SHOREWARD)	OUTSIDE 25m (SEAWARD)
1. Sand	375 km^2	900 km^2
2. Mud and Silt (includes tidal creeks)	225 km^2	?
3. Rocks	25 km^2	?
4. Submerged Vegetation	250 km^2	300 - 900 km^2
5. Reefs (Total)	200 km^2	300 - 400 km^2
A. Fringing Reefs	80 km^2	250 km^2
B. Patch Reefs	20 km^2	50 km^2
6. Other		

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

NAME OF BEACH	LENGTH IN Meters	SPECIES NESTING (Use abbreviations)*	MONTHS OF RECORDED NESTING
1. Grand Turk Island	2,500	E., Cm?, Cc?	April, May, June, July, Aug
2. Mighes Cay	300	E., Cm, Cc?	April, May, June, July, Aug.
3. Horse Cay	20	E.?	
4. Little Ambergris Cay	1,200	E.?, Cm?	
5. Long Cay (East Caicos)	400	E.?	
6. North Caicos Island	1,500	E., Cm?, Cc?	April, May, June, July, Aug
7. Parrot Cay	1,400	E., Cm?, Cc?	April, May, June, July, Aug
8. Pine Cay	2,000	E., Cm, Cc?	April, May, June, July, Aug
9. Providenciales	2,400	E., Cm?, Cc?	April, May, June, July, Aug
10. Salt Cay	900	E.? Cm?, Cc?	

TABLE 3. NESTING BEACH INVENTORY
List beaches in geographic sequence.
Provide additional information on following page.

Species Abbreviations:

Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	D
Eretmochelys imbricata	E
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

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NAME OF BEACH	LENGTH IN Meters	SPECIES NESTING (Use abbreviations)*	MONTHS OF RECORDED NESTING
1. Little Ambergris Cay	600	E., Cm (?)	April, May, June, July, Aug
2. Big Sand Cay	900	E.	April, May, June, July, Aug
3. Bush Cay	100	E.(?)	
4. Cotton Cay	100	E.(?)	
5. East Caicos Island	8,000	E., Cm, Cc	April, May, June, July, Aug.
6. East Cay	210	E.	April, May, June, July, Aug.
7. Fish Cay	300	E., Cm ?	April, May, June, July, Aug.
8. French Cay	400	E., Cm, Cc?	April, May, June, July, Aug.
9. Gibb Cay	120	E.?, Cm ?	
10. Grand Caicos Island	6,000	E. , Cm , Cc ?	

TABLE 3. NESTING BEACH INVENTORY
List beaches in geographic sequence.
Provide additional information on following page.

Species Abbreviations:

Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	D
Eretmochelys imbricata	E
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

(?) Question Marks represents unconfirmed reports.

NAME OF BEACH	LENGTH In Meters	SPECIES NESTING (Use abbreviations)*	MONTHS OF RECORDED NESTING
1. Sand Bore Cay	400	E.?, Cm?	
2. Shot Cay	150	E., Cm?	April, May, June, July, Aug
3. South Caicos Island	1,600	E., Cm?, Cc?	April, May, June, July, Aug
4. Stubbs Cay	900	E.	April, May, June, July, Aug
5. Water Cay	1,600	E., Cm?, Cc?	April, May, June, July, Aug
6. West Caicos Island	3,000	E., Cm, Cc?	April, May, June, July, Aug
7. West Sand Spit	350	E,?,Cm, Cc?	
8. White Cay	80	E.	April, May, June, July, Aug
9.			
10.			

TABLE 3. NESTING BEACH INVENTORY
List beaches in geographic sequence.
Provide additional information on following page.

Species Abbreviations:
Caretta caretta Cc
Chelonia mydas Cm
Dermochelys coriacea D
Eretmochelys imbricata E
Lepidochelys kempi Lk
Lepidochelys olivacea Lo

TABLE 3. NESTING BEACH INVENTORY
(Supplementary page)

Please give additional information about each nesting beach identified in Table 3. Include information on color of sand, particle size, beach profile, backbeach vegetation, artificial lighting, etc.

REFER TO TABLE 3A FOR SUPPLEMENTARY DATA ON BEACHES

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: Long Bay Beach ISLAND East Caicos Island

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Med. to fine grain carbonate beach. Mod. profile with vegetation and dune.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: One hawksbill crawl observed on this beach. Other beaches may also have nesting but development on parts of the island limits this possibility.

NAME OF BEACH: East Cay Beach ISLAND East Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, med. to fine grains.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Possible nesting on east end of cay.

NAME OF BEACH: Fish Cay Beach ISLAND Fish Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, med. to fine well sorted grains.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: *MAJOR(More Than 5) REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: A minimum of eight hawksbill crawls were observed and a no. of old body pits. Mod. beach profile with vegetation and small dune in back. Probably the most important nesting beach in the area.

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: NW Beach ISLAND Big Ambergris Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: White to tan, fine to med. grain well sorted carbonate.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Low profile, highly vegetated beach suitable for nesting. One nest and one crawl observed during aerial survey, fishing camp on N.E. side of cay.

NAME OF BEACH: Big Sand Cay Beach ISLAND Big Sand Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: Tan, fine to med. grains, well sorted, polished carbonate material.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Although nests were not observed during aerial survey, this is an ideal beach for nesting. Mod. profile and well vegetated.

NAME OF BEACH: Cotton Cay Beach ISLAND Cotton Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, med. to fine grains.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Although no crawl observed during aerial survey, the lack of human habitation makes it a suitable beach for nesting. Also two hawksbills were observed [illegible] offshore.

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: Long Bay Beach ISLAND East Caicos Island

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Med. to fine grain carbonate beach. Mod. profile with vegetation and dune

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: One hawksbill crawl observed on this beach. Other beaches may also have nesting but development on parts of the island limits this possibility.

NAME OF BEACH: East Cay Beach ISLAND East Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, med. to fine grains

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Possible nesting on east end of cay.

NAME OF BEACH: Fish Cay Beach ISLAND Fish Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, med. to fine well sorted grains.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: *MAJOR(More Than 5) REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: A minimum of eight hawksbill crawls were observed and a no. of old body pits. Mod. beach profile with vegetation and small dune in back. Probably the most important nesting beach in the area.

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: Sandy point Beach ISLAND Long Bay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Unknown

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: * NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) * REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Fishermen report hawksbill nesting on this beach.

NAME OF BEACH: Northeast Beach ISLAND North Caicos Island

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Unknown

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: ? MAJOR(More Than 5) REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Possible nesting beach, but could not be confirmed by aerial surveys. Fishermen report Hawksbill nesting.

NAME OF BEACH: Northeast Beach ISLAND Parrot Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH * MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, med. well sorted.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Fishermen report possible hawksbill nesting.

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: Platico Point Beach ISLAND Grand Caicos Island

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: Fine grained, carbonate

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) REGULAR(Less Than 5) *INCIDENTAL

GENERAL COMMENTS: Fishermen report nesting on this beach.

NAME OF BEACH: Highas Cay Beach ISLAND Highas Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): *HIGH MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Med. to coarse grain, carbonate well sorted, white to tan.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: *MAJOR(More Than 5) REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Steep profile, three small pocket beaches. Three body pits and one crawl observed. Fishermen report that Highas cay is a major nesting beach.

NAME OF BEACH: East Beach ISLAND Little Ambergris Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS. Carbonate, fine-well sorted grains.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *Occasional fishing camp NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Fishermen report nesting on east side of Little Ambergris Cay. Low profile beach and well vegetated.

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: South Beach ISLAND Pine Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, med. grains well sorted and well rounded. Tan with some shell fragments.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE LIGHT * MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) REGULAR(Less Than 5) * INCIDENTAL

GENERAL COMMENTS: Observations have been made of an occasional Hawksbill and green sea turtle nesting on this beach. Last nest observed was during the summer of 1961.

NAME OF BEACH: North and west beaches ISLAND Providenciales

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH * MODERATE * LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, primarily fine well rounded and well sorted grains.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE *LIGHT *MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) * REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: No nests surveyed from air but fishermen report some nesting-- species unknown. Long narrow beaches, low beach profile, and some vegetation.

NAME OF BEACH: Salt Cay Beach ISLAND Salt Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: Unknown

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) REGULAR(Less Than 5) ? INCIDENTAL

GENERAL COMMENTS:

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: West Beach ISLAND Shot Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, fine grain sediment.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) ?REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Fishermen report hawksbill nesting on this island.

NAME OF BEACH: West side beach ISLAND South Caicos Island

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, lt. tan, med. to fine grain

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE *LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) REGULAR(Less Than 5) *INCIDENTAL

GENERAL COMMENTS: Fishermen report some nesting on this island--no reports of nesting during 1982 season.

NAME OF BEACH: Stubbs Cay Beach ISLAND Stubs Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH *MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) REGULAR(Less Than 5) *INCIDENTAL

GENERAL COMMENTS: Unknown if nesting takes place on this Cay.

TABLE 3A (SUPPLEMENT DATA ON BEACHES)

NAME OF BEACH: Water Cay beach (North and South) ISLAND Water Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *to LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, lt. to med. grain well sorted.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE * LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) * REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Ideal nesting beaches on north and south side of island. Fishermen report nesting.

NAME OF BEACH: West and South Beach ISLAND West Caicos Island

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH * MODERATE LOW

DESCRIPTION OF SAND CHARACTERISTICS: Carbonate, lt. tan.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: NONE LIGHT TO MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: Fishermen report Hawksbill and possible green sea turtle nesting.

NAME OF BEACH: White Cay Beach ISLAND White Cay

ENERGY BEACH CLASSIFICATION OF BEACH (CIRCLE): HIGH MODERATE *LOW

DESCRIPTION OF SAND CHARACTERISTICS: Tan, lt. to med. well sorted grains.

LEVEL OF HUMAN DEVELOPMENT AND/OR IMPACT: *NONE LIGHT MODERATE HEAVY

ESTIMATED NESTING ACTIVITY: MAJOR(More Than 5) *REGULAR(Less Than 5) INCIDENTAL

GENERAL COMMENTS: One hawksbill nest observed. Ideal beach, about 60 M. long, with mod. profile and some background vegetation.

DATE	BEACHES SURVEYED	NUMBERS OF NESTING TRACKS						
		Cc	Cm	D	E	Lk	Lo	NO T. D.
7/7/82	Big Ambergris Cay				1			
	Bush Cay				1			
	East Caicos Island				1-2?			
	East Cay				?			
	Fish Cay				6			
	Grand Caicos, NW Beach		1					
	Highas Cay				4			
	Water Cay				??			
	West Caicos Island, North Beach				??			
	White Cay				2			

TABLE 8. AERIAL BEACH SURVEY SUMMARY
Give any additional information available from aerial surveys. Information should include ground truth observation if conducted.

Species Abbreviations:

Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	D
Eretmochelys imbricata	E
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

TABLE 8. AERIAL BEACH SURVEY SUMMARY
(Supplementary page)

Give any additional information available from aerial surveys. Information should include ground truth observation if conducted.

Aerial surveys were conducted according to method described in N.A.T.S. Sea Turtle Conservation Manual. Whenever possible a beach was surveyed a second time to confirm initial observations of crawls and nests.

SPECIES \ YEAR	1982	1981	1980	1979	1978	1977
Caretta caretta	50 ± 25					
Chelonia mydas	75 ± 30					
Dermochelys coriacea						
Eretmochelys imbricata	200 ± 75					
Lepidochelys kempi						
Lepidochelys olivacea						

TABLE 6. ESTIMATED POPULATIONS OF NESTING FEMALES.
Summarize the estimated number of nesting females for the years indicated and describe methods of estimation on the next page.

TABLE 6. ESTIMATED POPULATIONS OF NESTING FEMALES.
(Supplementary page)

Please give brief details on methods of estimation for Table 6.

Population estimates for Caretta caretta and Chelonia mydas are not made with a great deal of confidence. Estimates for these two species were based on individual observations made by local divers and fishermen.

Population estimate for Eretochelys imbricata is made at a higher confidence level because aerial surveys confirmed number of nesting females observed by local fishermen and divers.

Estimates for all three species would be more reliable if aerial and "ground-truth" surveys could conducted systematically over the months of May and June.

NAME OF AREA (or give coordinates)	APPROX. AREA (Km²)	SPECIES FORAGING (Use abbreviations & approx. numbers)	NATURE OF EVIDENCE (Observation, fishery, incidental catch)
1. Big Ambergris Cay, Little Ambergris Cay & Fish Cay	40	E.(all sizes) & Cm (Juv. and Sub-Ad.)	Aerial observation and interviews
2. Bottle Creek	12	Cm (Juv. and Sub.-Ad.	Aerial observation, boat observation, local interviews.
3. Highes Cay (Fringing Reef	8	Cm and E.	Aerial observation, u/w observation and interviews.
4. Grand Turk, Gibbs Cay, Cotton Cay, East Cay and Salt Cay	80	Cm and E.	Aerial observation and interviews
5. Middle (grand)Caicos & North Caicos, South Side	250-300	Cm (Juv. and a few sub-ad.), E. (few)	Aerial observation, u/w observation boat observation, interviews
6. Ocean Hole (Grand Caicos	2	Cm(Ad1-Juv)	Aerial Observation, u/w observation interviews, Meylan's Report

TABLE 7. FORAGING AREAS INVENTORY

*Data insufficient to make an accurate population estimates.

Species Abbreviations:

Caretta caretta	Cc
Chelonia mydas	CM
Dermochelys coriacea	D
Eretmochelys imbricata	C
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

TURTLE SPECIES	TAG #	AGE	WEIGHT LBS.	CARAPACE (Crv, Cm) LENGTH/WIDTH	LASTRON (Crv, Cm) LENGTH/WIDTH	TAIL TOTAL (Crv, Cm)	TAIL, Pl. to Cól./Col. tc Tip
Green	MU980	Juv.	11.0	26.5 x 32.0	29.5 x 27.0	6.6	4.0/2.3
Green	MU979	Juv.	23.0	45.0 x 40.0	35.5 x 32.0	6.0	4.0/2.0
Green	MU978	Juv.	13.0	32.0 x 27.0	26.5 x 24.0	5.2	3.2/2.1
Green		Juv.	-	47.0 x 40.5	37.5 x 33.0	6.9	4.2/2.5
Green		Juv.	-	42.0 x 37.5	32.0 x 29.5	5.8	4.1/1.5
Green		Juv.	18.0	43.0 x 38.0	35.5 x 31.0	6.5	3.9/2.0
Green		Juv.	16.5	43.0 x 37.5	34.0 x 29.5	6.0	4.0/2.0
Green		Juv.	17.5	43.5 x 39.0	35.5 x 30.0	5.25	3.25/2.0
Green		Juv.	11.0	40.5 x 36.0	32.0 x 29.0	6.5	4.0/2.5
Green		Sub-Ad1	80.0	71.0 x 63.0	56.0 x 48.0	11.0	5.5/4.25

Table 7A Supplement: Sample of 10 turtles taken from the bottle Creek foraging habitat during the July 1982 survey.

TABLE 7B: Observations of Turtles in Foraging Habitats Made During the July 1982 Aerial Survey.

DATE	SPECIES	HABITAT TYPE	SIZE CLASS	WATER DEPTH,M	DISTANCE FROM SHORE (M)	LOCATION
7/7/82	E	Fring. Reef	JUV.	8	50	S.E. Side of Salt Cay
7/7/82	E	Fring. Reef	JUV.	10	75	"
7/7/82	Cm	Grass Flat	Juv.	4	100	Little Ambergris, S.
7/7/82	Cm	Shallow Reef	Juv.	5	100	Big Ambergris, S.E.
7/7/82	Cm	Grass Flat	Juv.	5	75	East Caicos, W.
7/7/82	E	Patch Reef	Juv.	15	200	South Caicos
7/7/82	?	Clear Bottom	Juv.	15	50	Pine Cay
7/9/82	E	Fring. Reef	Juv.	10	100	West Caicos
7/9/82	Cm	Grass Flat	Juv.	4	50	Little Water Cay
7/9/82	Cm	Grass Flat	Juv.	4	55	Little Water Cay
7/9/82	Cm	Tidal Creek	Juv.	3	5	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	3	5	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	2	4	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	5	5	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	5	12	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	5	10	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	5	10	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	2	8	North Caicos
7/9/82	Cm	Tidal Creek	Juv.	2	5	North Caicos

TABLE 7B continued .....

DATE	SPECIES	HABITAT TYPE	SIZE CLASS	WATER DEPTH,M	DISTANCE FROM SHORE (M)	LOCATION
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	Grand Caicos, South
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	E	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	?	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	CM	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	?	Ocean Blue Hole	Juv.	10-200+	1,000	"
7/10/82	Cm	Deep Water Reef	Adl.	100	500	Grand Caicos, North
7/10/82	Cc	Deep Water Reef	Sub-Adl	120	600	Grand Caicos, North
7/10/82	?	Mid Water Reef	Juv.	50	200	Parrot Cay, North End
7/10/82	Cm	Fringing Reef	Juv.	20	100	West Caicos, South End
7/10/82	?	Finging Reef	Juv.	25	150	West Caicos, South End
7/11/82	?	Frining Reef	Juv.	20	20	French Cay

TABLE 7B continued....

DATE	SPECIES	HABITAT TYPE	SIZE CLASS	WATER DEPTH,M	DISTANCE FROM SHORE (M)	LOCATION
7/10/82	Cm	Grass Flat	Juv	2	10	[illegible] Creek, Btw North Caicos & Grand Caicos
7/10/82	Cm	Grass Flat	Juv	2	10	"
7/10/82	Cm	Grass Flat	Juv.	2	12	"
7/10/82	Cm	Grass Flat	Juv	2	12	"
7/10/82	Cm	Grass Flat	Juv	2	12	"
7/10/82	Cm	Grass Flat	Juv	2	15	"
7/10/82	Cm	Grass Flat	Juv	2	10	"
7/10/82	Cm	Grass Flat	Juv	2	10	"
7/10/82	Cm	Grass Flat	Juv	2	8	"
7/10/82	E	Grass Flat next to Reef	Juv	4	12	Highas Cay
7/10/82	Cm	Fringing Reef	Juv	5	20	Highas Cay
7/10/82	Cm	Grass Flat	Juv	2	12	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	2	12	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	2	10	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	2	10	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	2	20	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	2	2	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	3	8	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	2	30	Bottle Creek
7/10/82	Cm	Grass Flat	Juv	2	10	Bottle Creek
7/10/82	E	Fringing Reef	Juv.	10	150	Pine Cay, North end
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Blue Hills

SPECIES \ MONTH	J	F	M	A	M	J	J	A	S	O	N	D	MONTHS OF GREATEST ACTIVITY
Caretta caretta				X	X	X	X						April, May
Chelonia mydas Adl.	X	X	X	X	X	X	X	X	X	X	X	X	April, May, June
Chelonia mydas Juv.				X	X	X	X	X					
Dermochelys coriacea													
Eretmochelys imbricata	X	X	X	X	X	X	X	X	X	X	X	X	April, May, June
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8 - TURTLE SPECIES PRESENT ON FORAGING AREAS. Please complete one of these tables for each of the areas identified in Table 7. Number each table as enumerated in Table 7 (7-1, 7-2, etc.).

LIFE STAGE UNIT	SPECIES (abbrev.)	CAUSES*	EXTENT OF MORTALITY (% of unit)
Nests/eggs	Cm,Cc,E	Human poaching, crabs, vegetation roots, storm erosion	50
Hatchlings	Cm,Cc,E,	Avian predators (especially frigate birds)& Marine predators	?
Juveniles	Cm,E.	Human poaching and marine predators (primarily sharks)	20-40
Adults (in water)	Cm, E.	Human poaching, incidental capture while fishing	?
Nesting females	Cm,Cc,E.	Human poaching	20-30

TABLE 10. NATURAL MORTALITY

* Natural mortality causes may include: Beach erosion of nests; egg and/or nestling predation by crabs, wild animals, sea birds, etc.; disease; sharks and other predators at sea; etc.

Species Abbreviations:

Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	Dc
Eretmochelys imbricata	Ei
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

TABLE 10. NATURAL MORTALITY
(Supplementary page for additional biological data)

Please report below, and on additional pages if necessary, additional data obtained or available such as measurements (length, width, weight) of adult females, adult males, hatchlings, numbers of eggs per nest, hours of nesting, hours and conditions of hatchling, etc.

There is no data available on the subject of natural mortality. During the July survey of the Turks and Caicos Islands no strandings were observed.

NAME OF PORT OR SITE	SPECIES LANDED (Use abbrev)	FISHING GEAR USED	MONTHS OF LANDINGS	NUMBERS & WEIGHTS (Estimate
1. Cockburn Town, Grand Turk	Cm,E.	Nets and capture from chasing down from boat	All Year	?
2. Bottle Creek, North Caicos	Cm,E.	Nets and capture from chasing down by boat	All Year	?
3. South Caicos	Cm,E.	Nets and capture from boats	All Year	?
4. Salt Cay	Cm,E.	Nets and capture from boats	All Year	?
5. Conch Bar	Cm,E.	Nets and capture from boats	All Year	?
6. Raw	?	Nets and capture from boats	All Year	?
7. Whitby	?	Nets and capture from boats	All Year	?
8. Lorimore	?	Nets and capture from boats	All Year	?

TABLE 11. LANDING SITES FOR TURTLES & TURTLE PRODUCTS

Species Abbreviations:

Caretta caretta	Cc
Chelonia mydas	Cm
Dermochelys coriacea	Dc
Eretmochelys imbricata	Ei
Lepidochelys kempi	Lk
Lepidochelys olivacea	Lo

SPECIES \ YEAR	1982	1981	1980	METHOD OF DETERMINATION
Caretta caretta				
Chelonia mydas	800/ 4,000 KG			Interviews with native fishermen and observations made of turtle fishing during the 1982, July turtle survey.
Dermochelys coriacea				
Eretmochelys imbricata	50/ 400 KG			Interviews with local fishermen and observations made of turtle fishing during the 1982, July turtle survey.
Lepidochelys kempi				
Lepidochelys olivacea				

TABLE 12. TOTAL ANNUAL TURTLE LANDINGS IN NUMBERS AND WEIGHTS (#/Kg)
Do not include turtles caught incidental to other fishing operations (e.g., shrimp trawling).

ACTIVITY	TOTAL ANNUAL NUMBERS OF PERSONS	EST. ANNUAL INCOME FROM TURTLES	COMMENTS
Fishing	80 ± 10	$12,000-18,000.00 US	Income based on a $1.00 per pound (live weight) obtained for turtles at local markets.
Processing			Fishermen process their own catch
Selling			Fishermen sell their own catch

TABLE 16. EMPLOYMENT DEPENDENT ON TURTLES

Market Prices for turtle products in the Turks and Caicos Islands are as follows: Live weight ($1.00 per pound, Meat ($1.90-$2.50 per pound), Shell varies depending on species and quality (10.00-$20.00 per pound), Eggs ($0 $1.00).

INSTITUTION OR ORGANIZATION NAME AND ADDRESS	NO. OF ACTIVE MEMBERS	ACTIVITIES IN PROGRESS
PRIDE Foundation	8	Public education, dive surveys, tagging juveniles.

TABLE 18. PUBLIC AND PRIVATE INSTITUTIONS CONCERNED WITH TURTLE CONSERVATION/MANAGEMENT/UTILIZATION

TABLE 16. EMPLOYMENT DEPENDENT ON TURTLES
(Supplementary page)

In addition to marketed products, it is estimated that the following are taken annually from beaches or at sea for subsistence use:

A: Subsistence exploitation

1. Estimated number of eggs: 8,000-10,000
2. Estimated number of nesting females: 20-30
3. Number of turtles caught at sea: 200-400
4. Other: _____

Part-time turtle fishermen usually keep one or two turtles for themselves and sell any excess turtles at local markets.

B: Social aspects

In addition to the described fishery activities, exploitation of turtles may be permitted in some countries according to special rights or privileges extended to certain groups of people. If such specialized turtle exploitation exists, please give details (i.e., beach rights, ethnic traditions, specific seasons of the year, special permits, etc.).

NAME AND ADDRESS OF ORGANIZATION	BUDGET ALLOCATION TO TURTLES	% OF STAFF ASSIGNED TO TURTLES	COMMENTS ON LEVELS OF ENFORCEMENT
Ministry of Fisheries	0	0	Although there are statutes prohibiting the taking of turtles by size, species and time of year, there is virtually no legal enforcement Refer to enforcement regulations on next pages.

TABLE 20. REGULATORY AUTHORITY
Indicate all entities with statutory responsibilities (e.g., Fisheries Departments and Ministeries, Police, Coast Guard, etc.)

TURKS-CAICOS

TURKS-CAICOS

PART IV

Enforcement

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16. Without prejudice to any other powers conferred upon a fishery officer by these Regulations, the Fishery Limits (Turks and Caicos Islands) Ordinance, 1969 or any other law for the time being in force, for the purpose of preventing the commission of offences under these Regulations and the apprehension of persons committing any such offences, a fishery officer shall be deemed to have the powers of a police officer.

arch rants.

17. (1) If the Magistrate or a Justice of the Peace is satisfied by information on oath that there are reasonable grounds for suspecting that an offence against these Regulations has been, is being or is about to be committed and that evidence of the commission or intended commission of such offence is to be found at any premises or in any vessel specified in such information, he may grant a search warrant authorising a fishery officer, together with any other person named in the warrant, to search such premises or vessel at any time within one month from the date of the warrant, using such force as may be reasonably necessary if entry to such premises or vessel is refused or cannot otherwise be obtained.

(2) Any person acting under the authority of a search warrant issued in pursuance of this regulation may search any person who is found on, or whom he has reasonable grounds for believing has recently left or is about to enter such premises or vessel, as the case may be, and may seize any marine products or apparatus found in such premises or vessel, or upon such person, which he has reasonable grounds for believing to be evidence of the commission or intended commission of any offence against these Regulations:

Provided that a female shall only be searched by a female.

(3) Any person who obstructs the exercise of the powers conferred by a search warrant issued in pursuance of this regulation shall be guilty of an offence.

izure of sels, gear, .

18. (1) Where a fishery officer has reasonable cause to suspect that any vessel, gear or apparatus (of whatsoever kind) has been used in connection with the commission of any offence under these Regulations he may seize such vessel, gear or apparatus, as the case may be, and hold the same until the determination of the proceedings in respect of that offence, unless the Magistrate on application made by the owner thereof, shall otherwise direct: §3.

TURKS-CAICOS

Provided that if proceedings in respect of such suspected offence are not brought within one month of such seizure the fishery officer shall forthwith release anything so seized.

(2) Where a fishery officer has reasonable cause to suspect that any marine product has been taken in contravention of these regulations and he proposes to bring proceedings for an offence he may seize and hold the same until such proceedings, but such marine product, if of a perishable nature, may be disposed of or otherwise dealt with prior to the determination of such proceedings in such manner as the Magistrate upon the application of the fishery officer or of the person against whom the proceedings are to be brought, may direct.

(3) Any person who wilfully destroys or attempts to destroy anything to prevent its seizure under the foregoing provisions of this regulation shall be guilty of an offence.

Forfeiture upon conviction.

19. (1) Upon the conviction of any person for an offence under these Regulations the Magistrate's Court may make such order as the court thinks fit as regards the disposal of anything seized under the powers conferred by regulation 19, and may order the forfeiture of any property so seized or any other property used in the commission of the offence of which the accused person is convicted.

(2) Without prejudice to any other power vested in the issuing authority, upon the conviction of a person who holds a licence, in respect of a third or subsequent offence, the issuing authority may suspend or revoke the licence held by that person.

Penalty for interfering with fishery protection equipment.

20. Any person who damages or interferes in any way, except for just and sufficient cause, with any vessel, gear or equipment (of whatsoever kind) used by any fishery officer for the purpose of carrying out his duties in the enforcement of the provisions of these Regulations, shall be guilty of an offence and liable on conviction to a fine of five thousand dollars or to imprisonment for twelve months, or to both such fine and imprisonment.

Trial and punishment of offenders.

21. (1) All offences under these Regulations shall be triable summarily.

(2) Any person convicted of an offence for which no other penalty is provided under these Regulations shall be liable to a fine of one thousand dollars or to imprisonment for six months, or to both such fine and imprisonment.

as amended

TURKS-CAICOS

TABLE 20. REGULATORY AUTHORITY
(Supplementary page)

Please list National, regional, and local legislation concerning turtle management and conservation. List title, date, and stated purpose.

Refer to next page....

REPORTS AND PUBLICATIONS

The following is a list of the major reports and publications concerned with national turtle resources (list author, date, title, and publisher).

1. Carr, A., Meylan, A., Mortimer, J., Bjorndal, K., and Carr T. 1982. "Caicos Islands", Preliminary Survey of Marine Turtle Populations and Habitat in the Western Atlantic. NOAA Technical Memorandum NMFS-SEFC, pp31-36.

2.

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