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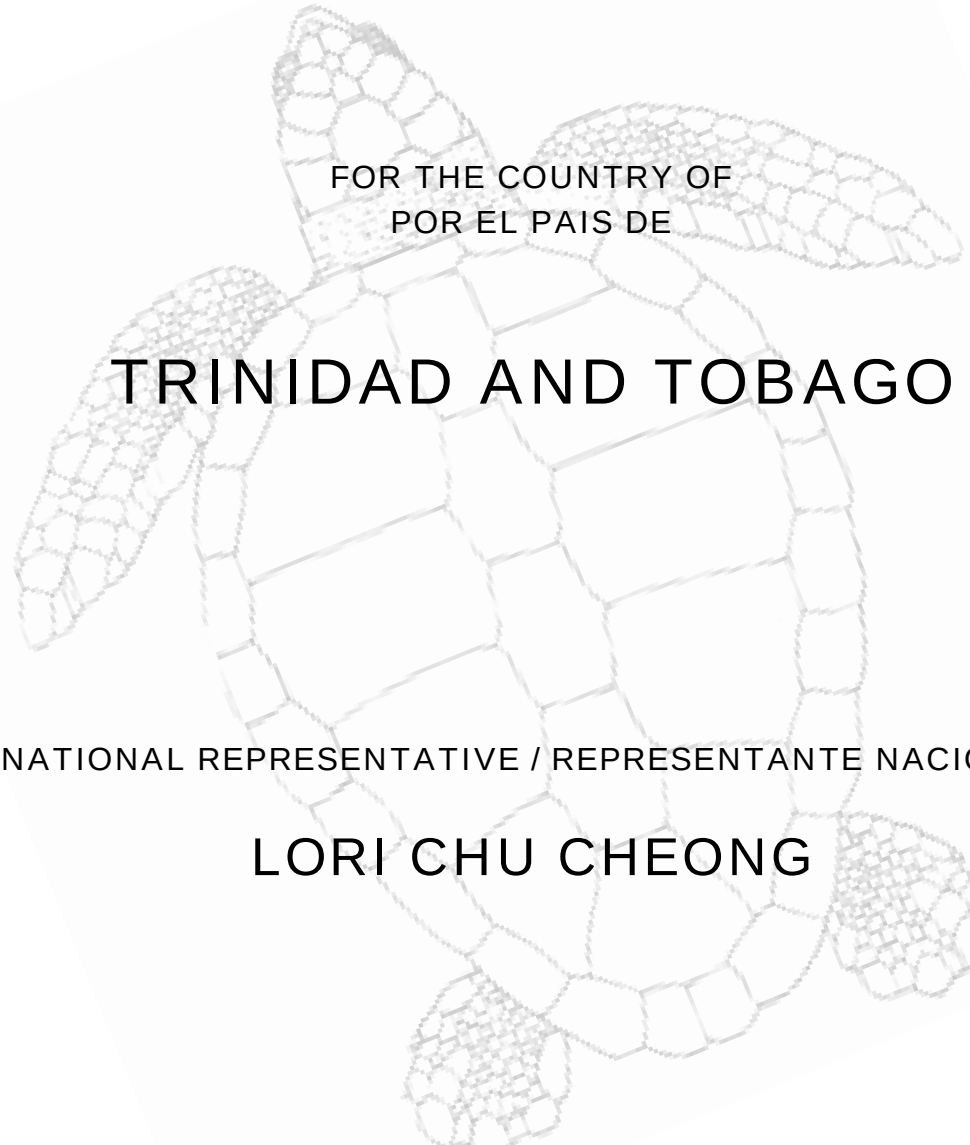

FOR THE COUNTRY OF
POR EL PAIS DE

TRINIDAD AND TOBAGO

NATIONAL REPRESENTATIVE / REPRESENTANTE NACIONAL

LORI CHU CHEONG

Western Atlantic Turtle Symposium
Simposio de Tortugas del Atlantico Occidental

17-22 July / Julio 1983
San José, Costa Rica
Trinidad & Tobago National Report, WATS I Vol 3, pages 398-406

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

NATIONAL REPORT FOR THE COUNTRY OF

TRINIDAD and TOBAGO

NATIONAL REPORT PRESENTED BY

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DATE SUBMITTED: 16 May 1983

Please submit this NATIONAL REPORT no later than 1 December 1982 to:

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San José, Costa Rica

Trinidad & Tobago National Report, WATS I Vol 3, pages 398-406

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:

Institute of Marine Affairs. 1984. National Report for Trinidad and Tobago, pp.398-406. *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: TRINIDAD AND TOBAGO

TABLE 1. GEOGRAPHIC INVENTORY	
Length of Coastline*	494.4 Km
Km^2 of Continental Shelf Area	
Seaward Extent of Jurisdictions	
Territorial Sea	22.2 Km**
Extended Economic Zone	370.6 Km***
Fisheries Jurisdiction	
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.
** Subject to agreement with neighboring countries.
*** Intended proposal not yet passed.

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE			
	Km of Shoreline		
Marine Shoreline Characteristics*	Undeveloped	Developed**	Total
1. Sand Beach (Total)			48.03
A. High Energy			41.93
B. Low Energy			6.1
2. Reef (exposed)			
3. Rocks			192.65
4. Cliffs			45.80
5. Vegetation (Total)			***199.65
A. Vines		14.35	14.35
B. Grasses			
C. Mangroves			61.42
D. Coconut Trees		6.8	61.10
E. Other Trees or Shrubs		37.98	59.53
F. Marshes			3.25
6. Mouths of Lagoons, Rivers, Canals			2.20
7. Total Shoreline			488.33

* Refer to SEA TURTLE MANUAL (Aerial Survey)
** Human development or use (See MANUAL)
*** *Editor's note (2009):* Editor changed this value from 185.3 as listed in the original National Report to reflect accuracy in summed values of the components.

TABLE 3. NESTING BEACH INVENTORY			
List beaches in geographic sequence. Provide additional information on following page*.			
Name of Beach	Length In Km	Species Nesting (use abbreviations)*	Months of Recorded Nesting
1. Macqueripe Bay	0.1	E	August
2. Maracas Bay	1.9	D	

TABLE 3. NESTING BEACH INVENTORY			
List beaches in geographic sequence. Provide additional information on following page*.			
3. Las Cuevas Bay	2.15	D	March-August
4. Blanchisseuse	1.4	D	
5. Paria Bay	0.95	D	March-August
6. Murphy Bay	1	D	March-August
7. Petit Tacarib	0.3	D	March-August
8. Grand Tacarib	1.15	D	March-August
9. Madamas Bay	0.6	D	March-August
10. Matelot Beach	0.15	D	
11. Grande Riviere Bay	1.1	D	April-August
12. L'Anse Defour Bay	0.7	D	April-July
13. Grande L'Anse Bay	0.35	D	April-July
14. Cumana Bay	1.1	D	
15. Matura Bay (North)	3.3	Cm, D, Lo	March-August (D), June (Cm), July (Lo)
16. Matura Bay (Central)	4.2	D	March-August
17. Matura Bay (South)	5.7	D	March-August
18. Manzanilla	18.8	Cm, D, Lo	April-August
19. Mayaro Bay	20.1	D	
20. Salt Pond Chacachacare	1	E	July
* See attached Map A			

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

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.					
Nesting Beach*	Color of Sand	Particle Size	Back Beach Vegetation	Artificial Lighting	Other
1. Macqueripe Bay	Yellowish-gray, 5y 7/2 Dark yellowish brown 10y 11/2	2.42	Rock slope	None	
2. Maracas Bay	Yellowish gray, 5y 7/2	2.64	Sparse coconut palms (*Cocos nucifera*)	Car park behind beach lit at night	Sand trap built along beach
3. Las Cuevas Bay	Pale yellowish brown 10 yr 6/2	2.69	Cliff, coconut palm (*Cocos nucifera*), twiner (*Ipomoea*)	None	

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.

Nesting Beach*	Color of Sand	Particle Size	Back Beach Vegetation	Artificial Lighting	Other
4. Blanchisseuse Bay	Pale yellow 10 yr 6/2 to moderate yellowish brown 10 yr 5/14	1.63	Coconut palm (*Cocos nucifera*)	None	
10. Matelot Bay	Light olive gray 5y 6/1	2.21	Cliff	None	
11. Grande Riviere Bay	Dark gray 3 N3 to yellowish gray 5y 7/2	-0.07	Coconut palm (*Cocos nucifera*)	Lights from a hotel or beach bar illuminate middle section of the beach	
14. Cumana Bay	Pale yellowish brown 10 yr 6/2	1.27			Fishing Depot
15. Matura Bay			Twiner (*Ipomoea pes-caprae*); shrubs C*occoloba uvifera (*sea grape), *Terminalia catappa* (Indian Almond), *Avicennia germinans* (Black mangrove); Coconut palm (*Cocos nucifera*). Bacon, 1973	None	At high tide sea up to vegetation, turtles sometimes lay among coconut roots
18. Manzanilla Bay			Coconut palm (*Cocos nucifera*)		
19. Mayaro Bay			Coconut palm (*Cocos nucifera*)		
20. Salt Pond Chacachac-are	Not available		Comprises *Sporobolus virginicus* Kunth, *Hippomane mancinella* , *Fimbristylis cymosa.* Bacon, 1967**	None	Good undisturbed nesting site

* *Editor's note (2009):* The nesting beaches were not numbered in a continuous sequence. The number that appears before each beach name represents the number listed in the original National Report.

** Bacon, P.R. 1967. The Salt Pond. Chacachacare Island. J. Trin. Fld. Nat. Club. 41-44.

TABLE 4.1*. NESTING CENSUS FOR BEACH: Paria Bay			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of Data Collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	0.75**	160***	29, 30 May; 25, 26 June 1982
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			
* *Editor's note (2009):* This Table was listed as Table 4-5 in original National Report.			
** Calculations: 3 nests /4 patrols = Av. 0.75 nests/night.			
*** Calculations: March-September 214 nights/season, and therefore 214 nights x 0.75 nests per night = 160 nests per season*****.			
***** *Editor's note (2009):* In the original National Report, this information was written as "March-September 214 nights/season, and therefore 214 nights/0.75 nests/night = 160 nests per season". Editor changed this information into the format listed in the footnote "***" above to conform to similar calculations listed in succeeding copies of Table 4.			

TABLE 4.2*. NESTING CENSUS FOR BEACH: Murphy Bay			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of Data Collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	0.5**	105***	29, 30 May 1982
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			
* *Editor's note (2009):* This Table was listed as Table 4-6 in original National Report.			
** Calculations: 1 nest /2 patrols = Av. 0.5 nests/night.			
*** Calculations: March-September 214 nights x 0.50 nests per night = 107 nests per season.			

TABLE 4.3*. NESTING CENSUS FOR BEACH: Grand Tacarib			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of Data Collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	2.25**	481***	29, 30 May; 31 July, 01 August 1982
Eretmochelys imbricata			
Lepidochelys kempi			

TABLE 4.3*. NESTING CENSUS FOR BEACH: Grand Tacarib			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of Data
Lepidochelys olivacea			
* *Editor's note (2009):* This Table was listed as Table 4-8 in original National Report.			
** Calculations: 9 nests /4 patrols = Av. 2.25 nests/night.			
*** Calculations: March-September 214 nights x 2.25 nests per night = 481 nests per season.			

TABLE 4.4*. NESTING CENSUS FOR BEACH: Grande Riviere			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of Data Collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	1.3**	278***	05 May; 05 & 12 June 1982
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			
* *Editor's note (2009):* This Table was listed as Table 4-11 in original National Report.			
** Calculations: 4 nests /3 patrols = Av. 1.3 nests/night.			
*** Calculations: March-September 214 nights x 1.3 nests per night = 278 nests per season.			

TABLE 4.5*. NESTING CENSUS FOR BEACH: Matura Bay (North)			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of Data Collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	1.97**	421***	08, 09, 10, 11, 13, 15, 19, 21, 23, 27, 29 April; 01, 03, 05, 07, 08, 10, 13, 14, 15, 18, 21, 27, 28 May; 03, 04, 05, 08, 09, 12, 17, 19, 23, 28 June; 01, 03, 14, 17, 27 July; 06, 11, 20 August
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea	0.02****	Length of season unknown	Same as above
* *Editor's note (2009):* This Table was listed as Table 4-15 in original National Report.			
** (for *Dermochelys coriacea*) Calculations: 81nests /41 patrols = Av. 1.97 nests/night.			

TABLE 4.5*. NESTING CENSUS FOR BEACH: Matura Bay (North)		
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.		
Species	Number of Nests	Dates of Data
*** (*for Dermochelys coriacea*) Calculations: March-September 214 nights x 1.97 nests per night = 421 nests per season.		
**** (for *Lepidochelys olivacea*) Calculations: 1nest /41 patrols = Av. 0.02 nests/night.		

TABLE 4.6*. NESTING CENSUS FOR BEACH: Salt Pond, Chacachacare			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of Data Collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	0.5**	Length of season unknown	9, 10 July 1982
Lepidochelys kempi			
Lepidochelys olivacea			
* *Editor's note (2009):* This Table was listed as Table 4-20 in original National Report.			
** Calculations: 1 nest /2 patrols = Av. 0.5 nests/night.			

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
11 June 1982	East Coast: Matura, Saline Bay, Balandra, Cumana, Salybia. North Coast: Patience, Toco, Grande L'Anse, L'Anse Defour, Sans Souci, Grande Riviere, Matelot, Madamas, Grand Tacarib, Petit Tacarib, Murphy, Paria, Blanchisseuse, Yarra, Las Cuevas, Maracas			14				
01 July 1982	South Coast: Moruga, Guayaguayare East coast: Mayaro, Cocos, Manzanilla West Coast: Salt Pond, Chacachacare			1	1			
08 July 1982	West Coast: Salt Pond, La Tinta, Chacachacare							2
09 July 1982	North Coast: Las Cuevas, Blanchisseuse, Paria, Murphy, Petit Tacarib, Grand Tacarib, Madamas, Matelot, Grande Riviere East Coast: Matura Bay, Central and North			25				1
22 July 1982	South Coast: Cedros, Islote, Chatham, Erin West Coast: Guapo Bay, Irois Bay, Granville, Bonasse, Columbus Bay			2				

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
29 July 1982	East and North Coast and Salt Pond			5				7
17 August 1982	East and North Coast and Salt Pond			5				
02 September 1982	East and North Coast			1				1
16 September 1982	East and North Coast							

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

* All sand beaches and reefs and most of shoreline surveyed. No sea turtle tracks sighted

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

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

On the north coast beaches of Madamas and Grand Tacarib, it was difficult to count separate nests because of high density nesting. The upper beach at the two locations were (sic) a continuous mass of thrown sand and an individual set of tracks could not be differentiated. The tracks were those of leather-backs with a few smaller unidentified species in between. This high-density nesting was observed up until August after which individual tracks could be seen.

On the west coast at Salt Pond, Chacachacare, tracks of a small turtle species were recognized on the aerial survey. Salt Pond has a narrow strip of possible beach, approximately 6 ft. between surf and upper beach. On ground-truthing this area, the turtle tracks were not distinguishable because of the substrate. The pebbles appeared to be uneven in all directions, thus uniform tracks would not be seen. During a night patrol in July, a hawksbill nested in the vegetation behind the beach.

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							
Chelonia mydas							
Dermochelys coriacea		Matura Bay 62					
Eretmochelys imbricata							
Lepidochelys kempi							
Lepidochelys olivacea							

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

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

The method used for estimating the leatherback population at north Matura Bay was used by Bacon (1973) to assess Matura Bay during three nesting seasons 1970-1972. Assuming that leatherbacks nest at intervals of about 10 days and may nest up to 7 times in a season, the number for a season may be estimated as 20 times the number nesting on an average night. The number nesting on an average night was found by patrolling north Matura for 10 consecutive nights and averaging the number of females sighted per night. This was 1.04. Therefore the season's nesting population was 1.04/night x 20 = 20.8 females. The population for the entire Bay was therefore found by multiplying this figure by 3; 20.8 x 3 = 62 nesting females for the season.

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. Macqueripe Bay		E	Observation
2. Grande Riviere Bay		Cm,E	Fishery
3. Toco		Cm,E	Observation, fishery
4. Salibia		E	Observation, fishery
5. Moruga		D	Incidental catch
6. Rock off of Saline Bay		E	Observation, fishery
7. Canari Pt.		E	Observation
8. Soldado Rock		Cm,E	Observation, fishery
9. Scotland Bay		Cm	Observation

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

* *Editor's note (2009):* Some sites were numbered 1-6 in original National Report and some sites were not assigned a number. Editor assigned a number 1-9 to each unique area.

TABLE 10A.1. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 12 May - 11 August 1981

Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No. Eggs	Tag No.
12/5/1981	North Matura	D**	21:30	Emer-gence	23:30	163		91.1	112 fertile; 4 infertile	
15/5/1981	North Matura	D	21:45	Digging nest	22:52	150	90.2	83.9	100	
19/5/1981	North Matura	D	20:15	Digging nest	21:22	150	116.7	83.9	82 fertile; 24 infertile	
29/5/1981	North Matura	D	21:00	Re-entry	21:05	165.2	114.2		Moving toward sea	
31/5/1981	North Matura	D	21:00	Camou-flaging nest	23:00	162.5	109.2	91.4	Camouflaging nest	
31/5/1982	North Matura	D	21:45	Emer-gence	21:45	167.6	104.1	83.4	Camouflaging nest	
2/6/1981	North Matura	D	21:50	Re-entry	21:55	162	102	93	Moving toward sea	
--/6/1981	North Matura	D	20:45	Re-entry	20:45				Re-entering the sea	
--/6/1981	North Matura	D	21:20	Being slaughtered		154.2	116	81		
--/6/1981	North Matura	D	22:10	Digging nest	23:22	154.9	116.9	(R) 84.1 (L) 40.9	27 fertile 24 infertile	
--/6/1981	North Matura	D	21:50	Digging nest	23:50	165	121.9	91.1	120 fertile 1 infertile	
--/6/1981	North Matura	D	0:09	False crawl	0:30	162	No measures taken		Moving up the beach	
--/6/1981	North Matura	D	0:55	Digging nest	2:45	167	124	(R) 71 (L) 83	40 fertile 30 infertile	
9/6/1981	North Matura	D	22:12	Re-entry	22:16	Unable to obtain measurements. Returning to sea too fast				
10/6/1981	North Matura	D	21:00	Digging nest	22:00	157	121.9	(R) 76 (L) 91	98 fertile 14 infertile	
11/6/1981	North Matura	D	22:55	Digging nest	1:58	168.9	128	91	87 fertile 16 infertile	(R) front
12/6/1981	North Matura	D	21:25	Digging nest	22:20	152	124	91	77 fertile 27 infertile	
13/6/1981	South of Matura	Cm	22:40	Laying eggs	23:17	86	76			
14/6/1981	North Matura	D	21:40	Digging nest	22:25	151	111	85	76 fertile 30 infertile	(R) front T1381

14/6/1981	North Matura	D	22:50	Cover-ing nest	23:22	165	111	91	Covering nest	
15/6/1981	North Matura	D	22:30	False crawl	22:30	157			False crawl	
15/6/1981	North Matura	D	0:03	Digging nest	1:31	163	109	(R) 87 (L) 91	101 fertile Estimated 12 infertile	
16/6/1981	North Matura	D	21:25	Digging nest	22:30	152	111	99	79 fertile 36 infertile	
16/6/1981	North Matura	D	0:21	Digging nest	1:25	160	123		81 fertile 25 infer-tile	(L) front AAD276 & AAD277
17/6/1981	North Matura	D	20:50	Emer-gence	21:00	144	113		False crawl	
19/6/1981	North Matura	D	22:05	Digging nest	23:20	167	124	83	111 fer-tile, 20 infertile	(L) front AAD275
20/6/1981	North Matura	D	1:00	Digging nest	2:28	160	119	97	103 fertile 36 infertile	
22/6/1981	North Matura	D	20:50	Cover-ing nest	21:26	1601	121	88		
25/22/1981	North Matura	D		Being slaughtered		153	111			
29/6/1981	North Matura	D	20:44	Digging nest	21:55	149.5	115.5	78	88 fertile 24 infertile	
--/6/1981	North Matura	D	21:25	Emer-gence	23:45	160	124	83	107 fertile 40 infertile	
--/6/1981	Paria	D	21:00	False crawl	21:55	152	114	86	False crawl	
--/6/1982	Paria	D	21:00	False crawl	23:05	152	116	86	False crawl	
4/7/1981	Paria	D	22:50	Emer-gence	0:45	167	121	91	105 fertile	
5/7/1981		D	21:44	False crawl	22:40	160	111	86	False crawl	
[--?--] ***		D **	21:47	Laying eggs	22:29	160	114	(R) 91 (L) 99	84 fer-tile; 3 infertile	(R) front AAD [-?-]
[--?--]		D	21:06	Digging nest	22:36	167.6	111.7	86.3	83 fer-tile; 12 infertile	T [--?--]
[--?--]		D	23:10	Covering nest	23.23	171.4	127	104	Covering nest	

* "D" = *Dermochelys cori*acea and "Cm" = *Chelonia mydas*

** *Editor's note (2009):* The symbol "Dc" was used in the original National Report to represent *Dermochelys coriacea.* Editor used "D" to represent this species to maintain consistency of symbols throughout this and among all national reports.

*** *Editor's note (2009)*: Throughout the ms, we will indicate "[--?--]" where the corresponding original text is, regrettably, undecipherable.

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

Editor's note (2009): Regarding the placement of tags (see "Tag No." column), we abbreviated Right rear (or hind) as '(R) rear'; Left rear (or hind) as '(L) rear'; Right front as '(R) front'; and Left front as '(L) front'

Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.
08/04 /1982	North Matura	D **	23:10	Finish-ing laying	0:00	165.1	116.8	81.3		
08/04 /1982	North Matura	D	0:20	Emer-gence	1:00	160	111.9	81.1	False crawl	
11/04 /1982	North Matura	D	0:00	Digging nest		157.4	109.2		56	AAD 226
11/04 /1982	North Matura	D	23:25	Digging nest	0:20	149.9	109.9	(R) 90.4 (L) 44.5	84	(R) front AAD 258
11/04 /1982	North Matura	D	0:25	Laying eggs		152.4	112.4	90.2	50	
15/04 /1982			21:30	Camouflaging nest		161.3	111.8			
15/04 /1982	North Matura	D		False crawl						
19/04 /1982	North Matura	D	0:02	Digging nest	1:09	154.9	111.8	83.1	[--?--] ***	(R) front AAD 254
23/04 /1982	North Matura	D	20:20	Emer-gence	21:45	149.9	106.7	[--?--]	86	(L) front AAD 259
23/04 /1982	North Matura	D	22:55	Emer-gence		165.2	116.2	[--?--]	106	
23/04 /1982	North Matura	D	0:39	Emer-gence		156.9	119.4	[--?--]	[--?--]	(L) front AAD [--?--]
29/04 /1982	North Matura	D	22:28	Laying eggs		162.6	124.5	[--?--]	[--?--]	(L) front AAA 229
01/05 /1982	North Matura	D	23:00	Emer-gence		150.8	115.6	[--?--]	82	(R) front AAA 230
01/05 /1982	North Matura	D	1:20	Covering nest		172.--	125	[--?--]		(L) rear AAD 231
01/05 /1982	North Matura	D								
05/05 /1982	North Matura	D	20:40	Covering nest		160.8	111.1			
05/05 /1982	North Matura	D	20:50	Laying eggs		152.4	[--?--]			[--?--]
05/05 /1982			21:30	Cover nest	21:40	152.4	111.8			[--?--]

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

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Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.
05/05 /1982	North Matura	D	21:30	Emer-gence		146.1	104.1		[--?--]	(R) [--?--] AAD 233 (L) [--?--] AAD 234
05/05 /1982	North Matura	D	4:00	Digging nest		156.2	[--?--]		108	AAD [--?--]
07/05 /1982	North Matura	D	20:10	Digging nest		151.5	[--?--]	[--?--]	[--?--]	[--?--]
07/05 /1982	North Matura	D		Camou-flaging nest	22:35	157.--	118.7			
07/05 /1982	North Matura	D		Camou-flaging nest	[--?--]					
07/05 /1982	North Matura	D		False crawl						
08/05 /1982	North Matura	D	21:45	Emer-gence	2:45				105	
08/05 /1982	North Matura	D	0:30	False crawl						
--/05/ 1982	North Matura	D	23:00	Digging nest		149.8	114.4	84.9	82	(L) [--?--] 004
15/05 /1982	North Matura	D	20:45	Cover-ing nest	21:32	157.5	113	[--?--]		Re-capture AAD [--?--]
15/05 /1982	North Matura	D	21:25	False crawl	21:25					
15/05 /1982	North Matura	D	22:25	Digging nest; False crawl	22:50	157.7	119.4			
15/05 /1982	North Matura	D	22:40	Laying eggs	23:25	157.5	116.8	96.5	117 ?; infertile eggs in-cluded	(L) front T1390 AAD [-- ?--]

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

Editor's note (2009): Regarding the placement of tags (see "Tag No." column), we abbreviated Right rear (or hind) as '(R) rear'; Left rear (or hind) as '(L) rear'; Right front as '(R) front'; and Left front as '(L) front'

Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.
15/05 /1982	Central Matura	D	22:10	Digging nest		155.6	118.8		79	(L) rear [--?--] 005 (L) -- [--?--] 006
16/05 /1982	North Matura	D	22:20	Digging nest	23:17				99	Re-capture [--?--]; removed
21/05 /1982	North Matura	D	23:00	Covering nest		139.7	109.2			
21/05 /1982	North Matura	D	23:00	Digging nest					76	Re-capture ADD [--?--], [--?--] 009; (L) rear [--?--] 010; (R) [--?--]
21/05 /1982	North Matura	D	0:50	Selecting nesting spot						Re-capture AAD 229
22/05 /1982	Grande Riviere	D	20:05	Emer-gence	21:41	154	111	86.1	116 including 24 infertile	
22/05 /1982	Grande Riviere	D	23:10	Fresh slaughter before nesting		147.7	104.1	92.7		
22/05 /1982	North Matura	D	20:30	Select-ing nesting site	21:55	160	123	95	105 including 25 infertile	
22/05 /1982	North Matura	D	22:00	Re-entering surf						
22/05 /1982	North Matura	D	22:15	Covering nest						
22/05 /1982	North Matura	D	22:25	Laying eggs	22:40	160	132	95		

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

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Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.
22/05 /1982	North Matura	D	22:45	Laying eggs	23:40	[--?--]	[--?--]	[--?--]		
22/05 /1982	North Matura	D	23:20	Camou-flaging nest	23:25					
22/05 /1982	North Matura	D	23:50	Camou-flaging nest	0:10					
22/05 /1982	North Matura	Cm	0:40	In surf	False crawl					
--/05/ 1982	North Matura	D	22:00	Emer-gence		150	106	98		(R) rear AAD [--?--] epoxy ****
29/05 /1982	Paria	D	21:15	Emer-ging	22:55	154.9	117.7	85	98 includ-ing 25 infertile	AA280 epoxy
29/05 /1982	Paria	D	22:00	Digging nest	22:40	162.5	116.8			AAD 281 epoxy
29/05 /1982	Paria	D	22:20	Emerged looking for site		152.4	139.7	96.3	110 includ-ing 20 infertile	AAD 282 epoxy
29/05 /1982	Grande Riviere	D	21:15	Digging nest		161.3	119.4		81	
29/05 /1982	Grande Riviere	D	0:20	Digging nest		165.1	118.8		85	
30/05 /1982	Grande Tocar-ibe	D	21:10	Emerg-ing		154.9	114.3			(R) rear ADD 246 epoxy; [--?--] 018
30/05 /1982	Grande Riviere	D	0:30	Selecting nest site						
30/05 /1982	Grande Tocar-ibe	D		Selecting nest site		152.4	114.3		102	(R) rear [--?--] 019

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

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Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.
30/05 /1982	Grande Tocar-ibe	D	[--?--]			162.4	119.4			(R) rear [--?--] 021
30/05 /1982	Grande Tocar-ibe	D	2:25			161.3	116.8			(L) rear [--?--]
30/05 /1982	Murphy	D				156	11	97	107	(R) rear AAD [--?--] epoxy; [--?--] 015
30/05 /1982	Murphy	D		False crawl						
01/06 /1982	North Matura	D	23:15	Camou-flaging area	23:30					(R) rear AAD 247 epoxy; AAD 259
01/06 /1982	North Matura	D	0:15	End of laying	0:30	172.1	123.2			
04/06 /1982	North Matura	D								Re-capture [--?--]
04/06 /1982	North Matura	D								
04/06 /1982	North Matura	D								
05/06 /1982	Grande Riviere	D	22:45	Emerg-ing	0:25	149.9	106.7	87.6	138 includ-ing 21 infertile	(R) rear AAD 240 epoxy [--?--] 014;
05/06 /1982	Grande Riviere	D	22:15	Emer-ging, false crawl	22:20					

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

Editor's note (2009): Regarding the placement of tags (see "Tag No." column), we abbreviated Right rear (or hind) as '(R) rear'; Left rear (or hind) as '(L) rear'; Right front as '(R) front'; and Left front as '(L) front'

Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.
05/06 /1982	Grande Riviere	D	23:30	Emer-ging		152.4	113.0	91.4		AAD 241 [--?--]
05/06 /1982	Grande Riviere	D	22:55	Emerging, false crawl						
05/06 /1982	North Matura	D	22:15	Covering nest		[--?--]	[--?--]			AAD 249
05/06 /1982	North Matura	D	22:15	Selecting nest site		[--?--]	[--?--]		83	(R) rear [--?--] 022 [--?--] AAD 250
05/06 /1982	North Matura	D							[--?--]	
05/06 /1982	North Matura	D		False crawl						
05/06 /1982	North Matura	D	0:52	Digging nest		160	114.3			AAD 229 epoxy
07/06 /1982	North Matura	D	21:28	Digging nest; false crawl						
07/06 /1982	North Matura	D	22:53	Digging nest		157.4	114.3			(R) rear [--?--] 024; AAD 277 epoxy
12/06 /1982	North Matura	D	22:55	False crawl	23:12					
12/06 /1982	Grande Riviere	D	0:15	Emer-gence		160	111.7	88.9		(R) rear [--?--]
15/06 /1982	Las Cuevas	D	23:00	Digging nest false crawl	0:33	149.8	107.9			(R) rear [--?--] 025; AAD 278 epoxy
--/06 /1982	North Matura	D	20:48	Select-ing nest site false crawl	21:12					

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

Editor's note (2009): Regarding the placement of tags (see "Tag No." column), we abbreviated Right rear (or hind) as '(R) rear'; Left rear (or hind) as '(L) rear'; Right front as '(R) front'; and Left front as '(L) front'

Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.
19/06 /1982	North Matura	D	21:05	False crawl	21:10					
19/06 /1982	North Matura	D	21:15	Selecting nest site		154.9	106.6	92	106	
23/06 /1982	North Matura	D	22:10	Camou-flaging	22:20	160	114.3			(R) rear [--?--] 027
01/07 /1982	North Matura	D	21:28	Digging nest		149.8	111.7		104	(L) rear [--?--] (L) front [--?--]
01/07 /1982	North Matura	Lo	22:29	Emer-gence		69.8	68.5	33	111	(R) rear [--?--] 029 (R) front [--?--] 030
[--?--]	North Matura	D		Re-entry						(R) rear [--?--] 043
[--?--]	North Matura	D	23:41			159.2	109.2	104.1		(L) rear [--?--] 044; AAD [--?--] epoxy
10/07 /1982	Salt Pond Chacha care	E	23:29	Digging nest	0:38	87.6	76.2	39.3	170	(R) rear [--?--] 045 (R) front [--?--] 046
01/08 /1982	Grande Tocar-ibe	D	23:40	Did not emerge from nest						
/08	North Matura	D	21:24	Camou-flaging nest	21:55	156.2	111.7			(L) rear [--?--] 049 AAD [--?--] epoxy

* "D" = *Dermochelys coriacea*; "Cm" = *Chelonia mydas*; "E" = *Eretmochelys imbricata*; and "Lo" = *Lepidochelys olivacea*

** *Editor's note (2009):* The symbol "Dc" was used in the original National Report to represent *Dermochelys coriacea.* Editor used "D" to represent this species to maintain consistency of symbols throughout this and among all national reports.

*** *Editor's note (2009)*: Throughout the ms, we will indicate "[--?--]" where the corresponding original text is, regrettably, undecipherable.

**** *Editor's note (2009):* In the Tag No. column, the notation "epoxy" refers to "tags that were stuck with epoxy to the carapace" (L. Lee Lum, IMA, in litt. 4 May 2009)

TABLE 10A.2. NATURAL MORTALITY (supplementary page for additional biological data)

Sightings of turtles between 08 April - 20 August 1982

Editor's note (2009): Regarding the placement of tags (see "Tag No." column), we abbreviated Right rear (or hind) as '(R) rear'; Left rear (or hind) as '(L) rear'; Right front as '(R) front'; and Left front as '(L) front'

Date	Beach	Spe-cies *	Time Seen	Activity	Time of re-entry	Length of cara-pace	Width of cara-pace	Length of flipper	No Eggs	Tag No.

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. Matelot Depot	Cm, E	Turtle nets	Official hunting season October-March	
2. Grande Riviere Depot	Cm, E, Lo	Turtle nets, harpoons	October-March	
3. Toco Depot	Cm, E, Lo	Turtle nets, harpoons	October-March	
4. La Lune Depot	Cm, E	Turtle nets	October-March	
5. Careenage Depot	Cm, E, Lo	Turtle nets, harpoons	October-March	

* See attached Map C

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

TABLE 15. OFFICIAL STATISTICS OF TURTLE PRODUCTION. Species: *Chelonia mydas, Eretmochelys imbricata, Lepidochelys olivacea* *

Complete one of these tables for each species taken in the fishery.

Turtle Product	1982	1981	1980	Current Market Price/Unit	Method of Data Collection
No. of eggs	Not sold				
Meat (kg)	Wholesale: $1.35-$3.50 TT per lb; Retail: $3.50-$6.00 TT per lb				Interview fishermen
Shell No./Wt.	$5-$18 per lb				Interview fishermen
Skins No./Wt.	Not sold				
Stuffed Juveniles	Not sold				

* All species treated alike.

TABLE 16. EMPLOYMENT DEPENDENT ON TURTLES			
Activity	Total Annual Numbers of Persons	Est. Annual Income From Turtles	Comments
Fishing	12		Because of the seasonality of this activity, turtle fishing is supplementary to fishing livelihood. No one is totally dependent on turtle fishing.
Processing			
Selling			

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:
2. Estimated number of nesting females:
3. Number of turtles caught at sea:

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.).

St. Peter's Day Fishermen's Festival in early July. Different sea foods are prepared for an all day festival. Turtles are caught and prepared even though the occasion occurs during the official closed turtle hunting season.

TABLE 17.1. TURTLE MARICULTURE OPERATIONS. Year: 1981								
This table quantifies activities concerned with turtle culture for either conservation, population enhancement experiments, or commercial use. Activities to be included are "headstarting", re-nesting, incubation and release, etc. Prepare separate table for each year of available data.								
Species	Hatchery Operations					Holding Live Turtles		
	Eggs Collect.	Eggs Hatch	No. Release	Age at Release	No. Retain	No. of Juvs.	Adult Females	Adult Males
Caretta caretta								
Chelonia mydas								
Dermochelys coriacea	158	51	15	2	4			
Eretmochelys imbricata								
Lepidochelys kempi								
Lepidochelys olivacea								

TABLE 17.2. TURTLE MARICULTURE OPERATIONS. Year: 1982

This table quantifies activities concerned with turtle culture for either conservation, population enhancement experiments, or commercial use. Activities to be included are "headstarting", re-nesting, incubation and release, etc. Prepare separate table for each year of available data.

Species	Hatchery Operations					Holding Live Turtles		
	Eggs Collect.	Eggs Hatch	No. Release	Age at Release	No. Retain	No. of Juvs.	Adult Females	Adult Males
Caretta caretta								
Chelonia mydas								
Dermochelys coriacea	261	58	45	2-4 hrs	4			
Eretmochelys imbricata	165	75	43	4 hrs	24	20		
Lepidochelys kempi								
Lepidochelys olivacea	60	5	none		3	3		

TABLE 17.3. TURTLE MARICULTURE OPERATIONS. Year: 1983

This table quantifies activities concerned with turtle culture for either conservation, population enhancement experiments, or commercial use. Activities to be included are "headstarting", re-nesting, incubation and release, etc. Prepare separate table for each year of available data.

Species	Hatchery Operations					Holding Live Turtles		
	Eggs Collect.	Eggs Hatch	No. Release	Age at Release	No. Retain	No. of Juvs.	Adult Females	Adult Males
Caretta caretta								
Chelonia mydas								
Dermochelys coriacea								
Eretmochelys imbricata						2		
Lepidochelys kempi								
Lepidochelys olivacea								

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
Institute of Marine Affairs	2	Research to: • determine the current nesting population of *Dermochelys coriacea* at Matura Beach • determine the demand and marketability of turtle meat and products in Trinidad • determine the feasibility of rearing a for marketing • collect biological data in nesting turtles
Trinidad Field Naturalists Club		Observation and tagging of leatherbacks during group outings

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
Forestry Division Ministry of Agriculture, Lands and Food Production			During the 1982 nesting season, [--?--] signs were posted at Matura Bay stating that the taking of turtles and eggs was an offence according to the 1975 Turtle Protection Regulations. Even though these regulations fell under the Fisheries Act, no enforcement of the law is present.

TABLE 20A. REGULATORY AUTHORITY (supplementary page)

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

1. Marine Areas (Conservation and Enhancement) Regulation 1974.
   Restriction of entry, interference and removal of fish (includes and turtle eggs) from restricted areas; here, Buccoo Reef. See attached.

2. Fisheries Act, 1916.
   Regulates fishing in waters of Trinidad and Tobago.
   - Mesh size of nets and use of nets
   - Size of turtles taken; prohibition of sale of turtle below prescribed size
   - Prohibition and taking of fish in restricted area. See attached.

3. Protection of Turtle and turtle Eggs Regulation, 1975.
   - Prohibition against taking possession of female turtle, or taking, removing, or selling turtle eggs.
   - Destruction or killing, harpooning and selling turtles. See attached.

TABLE 21. NATIONAL RESEARCH PROJECTS			
List turtle research activities funded within your country.			
Project Title	Date		Name and Address of Institution & Chief Investigator
	Start	End	
Investigations on the nesting, hatching and feeding of the leatherback turtle includes: • population estimates of nesting leatherbacks at Matura Bay • market surveys on availability of turtles • feasibility study of keeping hawksbills in captivity	May 1981	December 1983	Institute of Marine Affairs P.O. Box 3160 Carenage Trinidad Investigator: Lori Chu Cheong

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. Bacon, P.R. 1967. Leatherback turtles. J. Trin. Field Nat. Club. 2-3.

2. _____ 1969. The Leatherback Turtle Project. Progress Report 1967-1968 and Recommendation. J. Trin. Field Nat. Club. 8-9.

3. _____ 1969. Report of the Trinidad sea turtle conservation project. Ann. Report. J. Trin. Field Nat. Club. 18-35.

4. _____ 1970a. Studies on the Leatherback Turtle, *Dermochelys coriacea* (L.), in Trinidad, West Indies. Biol. Conservation 2(3): 213-217.

5. _____ 1970b. Political Restrictions make safe nesting possible. J. Int. Turtle and Tortoise Society 1(3); 6-7.

6. _____ 1970c. The status of sea turtle conservation in Trinidad, Environmental newsletter, Caribbean Conservation Association 1(2): 14-17.

7. _____ 1971a. Sea turtles in Trinidad and Tobago. *In*: Proc. 2rd Working Meeting of the IUCN Marine Turtle Specialist Group. IUCN Pub. New. Ser. Paper Nº 31: 79-83.

8. _____ 1971b. Tagless turtles. J. Int. Turtle and Tortoise Society 8(3): 26-27.

9. _____ 1973. Observations on the loss of tags by sea turtles. J. Trin. Field Nat. Club. 68-77.

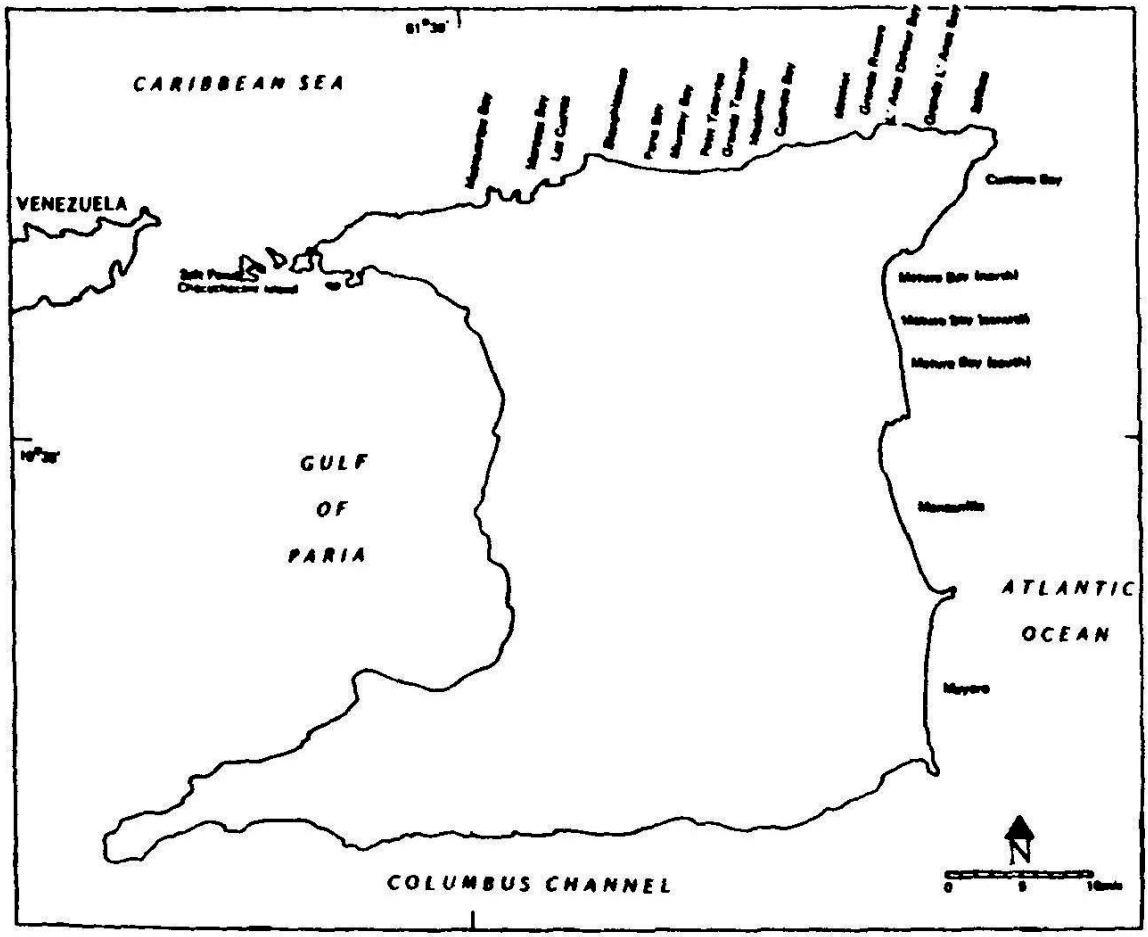
10. _____ 1973. The status and management of sea turtle resources in Trinidad and Tobago. Report to the Permanent Secretary, Ministry of Agriculture, Land and Food Production.

11. _____ 1973. The orientation circle in the beach ascent crawl of the leatherback sea turtle *Dermochelys coriacea* in Trinidad. Herpetologica 29. 343-348.

12. _____ 1975. Review on research, exploitation and management of the stocks of sea turtles in the Caribbean region. FAO Fisheries Circular. No. 334. 19 pp.

13. Bacon, P.R. and G. K. Maliphant. 1971. Further studies on sea turtles in Trinidad and Tobago. Jour. Trinidad Field Nat. Club 2-17.

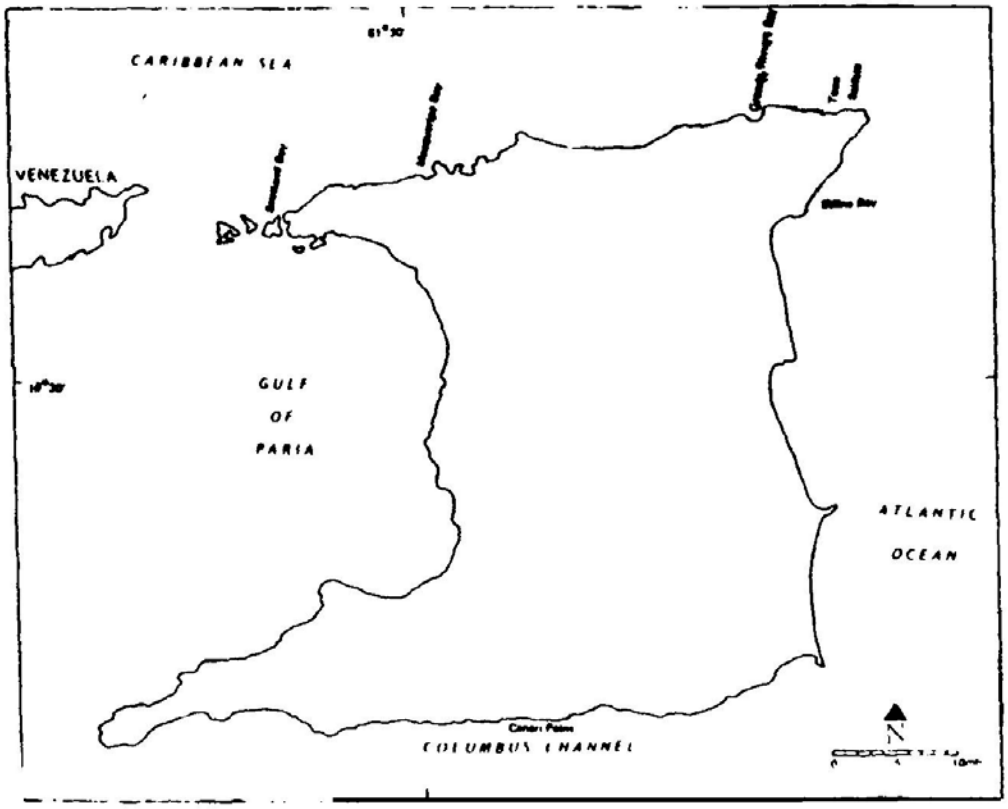
Figure 1. Trinidad and Tobago – W.A.T.S. National Report Study Area. Known Sea Turtle Nesting Beaches in Trinidad.[1]



MAP A KNOWN SEA TURTLE NESTING BEACHES IN TRINIDAD

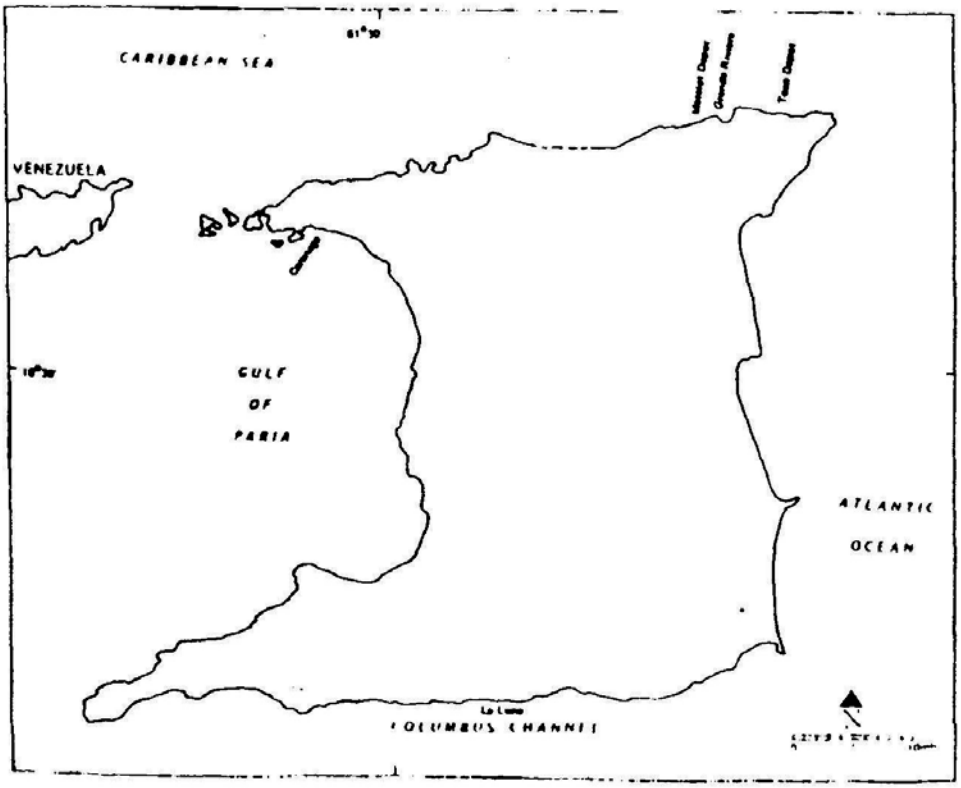
SEE TABLE 3.

[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.



MAP II FORAGING AREAS

SEE TABLE I.



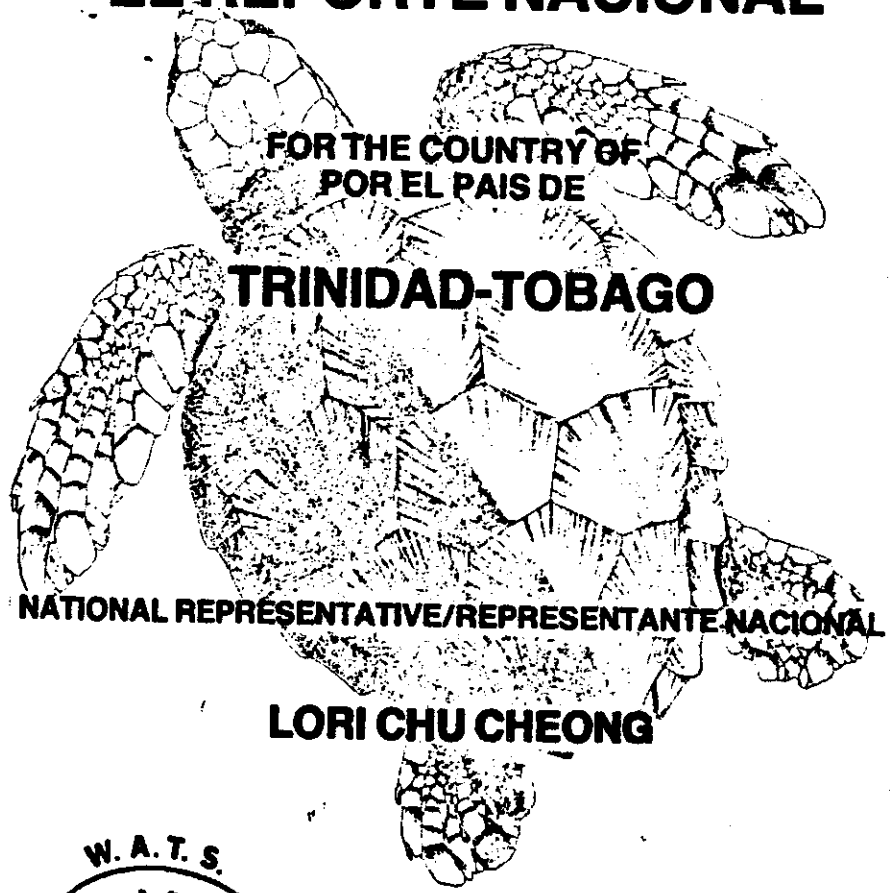
MAP I LANDING SITES

See TABLE II

THE NATIONAL REPORT
EL REPORTE NACIONAL

FOR THE COUNTRY OF
POR EL PAIS DE

TRINIDAD-TOBAGO



NATIONAL REPRESENTATIVE/REPRESENTANTE NACIONAL

LORI CHU CHEONG

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

3-398

W. A. T. S.
S. T. A. O.

WESTERN ATLANTIC TURTLE SYMPOSIUM

San Jose, Costa Rica

17-22 July 1983

NATIONAL REPORT FOR THE COUNTRY OF

Trinidad & Tobago

NATIONAL REPORT PRESENTED BY

Lori M. Chu Cheong
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Institute of Marine Affairs
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DATE SUBMITTED: May 16, 1983

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

Country TRINIDAD

Length of Coastline* . . . . 499.8 Km

Km² of Continental Shelf Area . . . . ____ Km

Seaward Extent of Jurisdictions:

Territorial Sea . . . . 22.2 Km
(SUBJECT TO AGREEMENT WITH NEIGHBOURING COUNTRIES)

Extended Economic Zone . . . . 370.4 Km
(EXTENSIVE BOUNDARY NOT YET PASSED)

Fisheries Jurisdiction . . . . ____ Km

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.

MARINE SHORELINE CHARACTERISTICS*	Km OF SHORELINE		
	UNDEVELOPED	DEVELOPED**	TOTAL
1. Sand Beach (Total)			98.03
A. High Energy			91.93
B. Low Energy			6.10
2. Reef (exposed)			—
3. Rocks			192.65
4. Cliffs			45.80
5. Vegetation (Total) not including Human Development			186.30
A. Urban Human Development - City + Docks		14.25	14.25
B. Grasses			—
C. Mangroves			64.42
D. Coconut Trees		6.80	61.10
E. Other Trees or Shrubs FOREST, SAVANNAH, SUGAR CANE, CITRUS		57.98	59.63
F. Marshes			3.86
6. Mouths of lagoons, rivers, canals			8.80
7. Total Shoreline			498.83

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

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

	NAME OF BEACH	LENGTH IN KM	SPECIES NESTING (Use abbreviations)*	MONTHS OF RECORDED NESTING
North Coast	1. MACQUERIPE BAY	0.10	E	August
	2. MARACAS BAY	1.90	D	
	3. Las Cuevas Bay	2.15	D	March - August
	4. Blanchisseuse Bay	1.40	D	
	5. Paria Bay	0.95	D	March - August
	6. Murphy Bay	1.00	D	March - August
	7. Petit Tacaribe	0.20	D	March - August
	8. Grande Tacaribe	1.15	D	March - August
	9. Madamas Bay	0.60	D	March - August
	10. Matelot Beach	0.15	D	

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

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

	NAME OF BEACH	LENGTH IN KM	SPECIES NESTING (Use abbreviations)*	MONTHS OF RECORDED NESTING
East Coast	11. Grande Riviere Bay	1.10	D	April - August
	12. L'anse Dorman Bay	0.90	D	April - July
	13. Grande L'anse Bay	0.35	D	April - July
	14. Cumana Bay	1.10	D	
	15. Matura Bay (north)	3.30	D Cm Lo	March - August June July
	16. Matura Bay (central)	9.20	D	March - August
	17. Matura Bay (south)	6.70	D	March - August
	18. Manzanilla Bay	18.80	D, Lo, Cm	April - August
	19. Mayaro Bay	20.10	D	
Gulf of Paria	20. Salt Pond, Chaguaramas	1.00	Ei	July

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Provide additional information on following page.
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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.

NESTING BEACH	COLOUR OF SAND	PARTICLE SIZE	BACKBEACH VEGETATION	ARTIFICIAL LIGHTING	OTHER
11. GRANDE RIVIERE BAY	DARK GRAY 3 N3 TO YELLOWISH GRAY 5 Y 7/2	-0.07	COCONUT PALM COCOS NUCIFERA	LIGHTS FROM A HOTEL-BEACH BAR ILLUMINATE MIDDLE SECTION OF BEACH	
14. CLUMANA BAY	PALE YELLOWISH BROWN 10YR 6/2	1.27			FISHING DEPOT
15. MATURA BAY			Grasses *Ipomoea pes-caprae*. Shrubs *Coccoloba uvifera* (sea grape) + *Chrysobalanus icaco* (fat pork). Trees *Terminalia catappa* (Indian almond) + *Avicennia germinans* (black mangrove), + coconut palm *Cocos nucifera*. Soler 1973	None	

TABLE 4 - 6 NESTING CENSUS FOR BEACH Paria Bay 1982
(name)

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	0.75	160	29, 30 May 1982; 25, 26 June
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

Please complete one of these tables to summarize census data for each beach listed in Table 3. Number tables sequentially (4-1, 4-2, 4-3, etc.) as enumerated in Table 3.

Calculations $\frac{3 \text{ nests}}{4 \text{ patrols}}$

avg. = 0.75 nests/night

March - Sept. 214 night/season ∴ 214 nights/0.75 nests/

= 160 nests/season

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.

THE ROCK COLOUR CHART OF THE GEOLOGICAL SOCIETY OF AMERICA, BOULDER, COLORADO. 1979.

NESTING BEACH	COLOUR OF SAND	PARTICLE SIZE	BACKBEACH VEGETATION	ARTIFICIAL LIGHTING	OTHER
1. MACAULORIE BAY	YELLOWISH GRAY 5 Y 7/2 TO DARK YELLOWISH BROWN 10YR 4/2	2.42	ROCK SLOPE	NONE	
2. MARACAS BAY	YELLOWISH GRAY 5 Y 7/2	2.64	SPARSE COCONUT PALM COCOS NUCIFERA	CAR PARK BEHIND BEACH LIT AT NIGHT	SAND TRAP BUILT ALONG BEACH.
3. LAS CUEVAS BAY	pale yellowish brown 10YR 6/2	2.69	CLIFF, COCONUT PALM COCOS NUCIFERA, TWINER ZAMIACEA	NONE	
4. BARKHISSOUSE BAY	PALE YELLOW 10 YR 6/2 TO MODERATE YELLOWISH BROWN 10 YR 5/4	1.63	COCONUT PALM COCOS NUCIFERA	NONE	
10. MATELOT BAY	LIGHT OLIVE GRAY 5Y 6/1	2.21	CLIFF	NONE	

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.

NESTING BEACH	COLOUR OF SAND	PARTICLE SIZE	BACKBEACH VEGETATION	ARTIFICIAL LIGHTING	OTHER
18 MANZANILLA BAY			COCONUT PALM COCOS NUCIFERA		AT HIGH TIDE SEA UP TO VEGETATION in places turtles conclude lay among coconut roots
19 MAYARO BEACH			COCONUT PALM COCOS NUCIFERA		
20 SALT POND, CHACACHACARE	NOT AVAILABLE	—	Comprises *Sporobolus virginicus* Kunth, *Hippomane mancinella* L. + *Fimbristylis cymosa* R. Br. (Bacon, 1967)	None	Good undist. natural nesting site

Bacon, P.R. 1967. The Salt Pond, Chacachacare Island. J. Trin. Fld. Nat. Club. 41-44.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	0.5	107	29,30 May 1982
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 1 NESTING CENSUS FOR BEACH Murphy Bay 1982
(name)

Please complete one of these tables to summarize census data for each beach listed in Table 3. Number tables sequentially (4-1, 4-2, 4-3, etc.) as enumerated in Table 3.

Calculations 1 nest / 2 patrols
avg. = 0.5 nest / night
March - Sept. 214 nights / season
∴ 214 nights × 0.5 nests/night
= 107 nests/season

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	0.25	481	29,30 May, 31 July or August 1982
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 2 NESTING CENSUS FOR BEACH Grande Tamarin
(name)

Please complete one of these tables to summarize census data for each beach listed in Table 3. Number tables sequentially (4-1, 4-2, 4-3, etc.) as enumerated in Table 3.

Calculations 1 nest / 4 patrols
avg. 0.25 nests/night
March - Sept. 214 nights/season
214 nights × 2.25 nests/night
= 481 nests/season

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	1.3	278	5 May 5-12 June 1982
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 3 NESTING CENSUS FOR BEACH Grande Rivers
(name)

Please complete one of these tables to summarize census data for each beach listed in Table 3. Number tables sequentially (4-1, 4-2, 4-3, etc.) as enumerated in Table 3.

Calculations 4 nests / 3 patrols
avg. 1.3 nests/night
March - Sept. 214 nights/season
214 nights / 1.3 nests/night
= 278 nests/season

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	1.97	421	1982 28-29
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea	0.02	length of season unknown	Same as above

TABLE 4 - 4 NESTING CENSUS FOR BEACH Matura Bay north
(name)

Please complete one of these tables to summarize census data for each beach listed in Table 3. Number tables sequentially (4-1, 4-2, 4-3, etc.) as enumerated in Table 3.

Calculations for Lo
1 nest / 21 patrols = 0.02 nest/night

Calculations 81 nests Dec
41 patrols
avg 1.97 nests/night
March Sept. 214 nights/season
∴ 214 nights × 1.97 nests/night
= 421 nests/season

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	0.5	Length of Season unknown	9-10 July 1982
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 20 NESTING CENSUS FOR BEACH Salt Pond, Chacachacare
(name)

Please complete one of these tables to summarize census data for each beach listed in Table 3. Number tables sequentially (4-1, 4-2, 4-3, etc.) as enumerated in Table 3.

Calculations 1 nest / 2 patrols
avg. 0.5 nests/night

(3 [illegible])

DATE	BEACHES SURVEYED	Cc	Cm	D	E	Lk	Lo	NO I.D.
11-06-82	East Coast - Matura, Salibea, Balandra, [illegible]; North Coast - Paria, [illegible], L'Anse, [illegible], Grande Riviere, Matelot, Madamas, Grande Tacaribe, [illegible], [illegible], Paria, Blanchisseuse, [illegible]	—	—	14	—	—	—	—
1-07-82	South Coast - Moruga, [illegible]; Lower west coast - Mayaro, [illegible], Manzanilla; Salt Pond	—	—	1	1	—	—	—
8-07-82	Gulf of Paria - Salt Pond, La Tinta, Chacachacare	—	—	—	—	—	—	2
9-07-82	North Coast - Las Cuevas, Blanchisseuse, Paria, Maracas, Petit Tacaribe, Grande Tacaribe, Madamas, Matelot, Grande Riviere	—	—	25	—	—	—	1
22-07-82	East coast - Matura Bay, central + north; South coast - Cedros, Icacos, Chatham, Erin; Gulf of Paria - [illegible] Bay, Jones Bay, Grenville, [illegible]	—	—	2	—	—	—	—
29-07-82	East + North coast + Salt Pond	—	—	5	—	—	—	7
17-08-82	East + North coast + Salt Pond	—	—	5	—	—	—	—
02-09-82	East + North coast	—	—	1	—	—	—	1
16-09-82	East - North coast	—	—	—	—	—	—	—

TABLE 5. 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 5. AERIAL BEACH SURVEY SUMMARY
(Supplementary page)

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

On the north coast beaches of Madamas + Grande Tacaribe it was difficult to count separate nests because of high density nesting. The upper beach at the two locations were a continuous mass of thrown sand + an individual set of tracks could not be differentiated. The tracks were those of leatherbacks, with few smaller unidentified species in between. This high density nesting was observed up until August, after which individual tracks could be seen.

In the Gulf of Paria, at Salt Pond, Chacachacare, tracks of a small turtle species were recognized on the aerial survey. Salt Pond has a narrow strip of pebble beach, approximately 6 ft between sea + upper beach. On ground truthing the area, the turtle tracks were not distinguishable because of the nature of the substrate. The pebbles appear to be uneven in all directions, thus, uniform tracks could not be seen. During a night patrol in July a hawksbill nested in the vegetation behind the beach.

SPECIES \ YEAR	1982	1981	1980	1979	1978	1977
Caretta caretta						
Chelonia mydas						
Dermochelys coriacea		Matura Bay 62				
Eretmochelys imbricata						
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 10 NATURAL MORTALITY (Supplementary page for additional biological data)

SIGHTINGS OF TURTLES BETWEEN APRIL-AUGUST 15,1983

Dc - Dermochelys coriacea
Cm - Chelonia mydas
*An epoxy glue was used to adhere a metal tag to the leatherbacks carapace

DATE	BEACH	SPECIES SYMBOL	TIME SEEN	ACTIVITY	TIME OF RE-ENTRY	LENGTH OF CARAPACE (cm)	WIDTH OF CARAPACE (cm)	LENGTH OF FLIPPER (cm)	NO. OF EGGS	TAG Nº
08/04/83	North Matura	Dc	2310	Finishing laying	2400	165.1	116.0	81.3	-	
09/04/83	North Matura	Dc	0030	Emergence	0100	160.0	111.6	81.4	False crawl	
10/04	North Matura	Dc	0000	Digging nest	-	157.5	109.2	-	56	AAD 226 Left front
11/04	North Matura	Dc	2325	Digging nest	0020	169.9	109.9	Right 80.4 Left 84.5	84	AAD 258 Right front
11/04	North Matura	Dc	0025	Laying eggs	-	152.0	113.4	80.2	50	AAD 227 Right front
15/04	North Matura	Dc	2130	Camouflaging nest	-	161.3	111.8	-	-	-
15/04	North Matura	Dc	2145	False crawl	-					
19/04	North Matura	Dc	0002	Digging nest	0109	154.9	111.0	[illegible]	[illegible]	AAD 250 Right front
21/04	North Matura	Dc	2020	Emergence	2109	140.9	106.7	80.0	94	AAD 259 Left front
23/04	North Matura	Dc	2255	Emergence	-	165.1	116.2	81.4	[illegible]	
23/04	North Matura	Dc	0030	Emergence	-	156.9	119.4	[illegible]	[illegible]	AAD 256 Left front
29/04	North Matura	Dc	2230	Laying eggs	-	162.6	120.5	90.0	[illegible]	AAD 229 Left front
02/05/83	North Matura	Dc	2300	Emergence	-	150.0	115.6	83.0	87	AAD 230 Right front
03/05	North Matura	Dc	0130	Covering nest	-	172.7	125	106.1	-	AAD 21[illegible] Left rear
[illegible]/05	North Matura	Dc								
[illegible]	North Matura	Dc	2040	Covering nest	-	160.0	111.2			
[illegible]	North Matura	Dc	2050	Laying eggs	-	152.4	111.6		-	Recapture AA[illegible]
05/05	North Matura	Dc	2130	Camouflaging nest	2140	152.4	112.6			AAD 272 Left rear
05/05	North Matura	Dc	2150	Emergence	-	146.1	106.1	-	[illegible]	AAD 211 Right [illegible] AAD 234 Left rear
05/05	North Matura	Dc	0000	Digging nest	-	156.2	[illegible]		[illegible]	AAD 235 Left rear
[illegible]	North Matura	Dc	2030	Digging nest		157.5	[illegible]	[illegible]	[illegible]	[illegible]
07/05	North Matura	Dc	-	Camouflaging nest	2235	157.5	113.7			HHC 000
07/05	North Matura	Dc	-	Camouflaging nest?	[illegible]					
07/05	North Matura	Dc	-	False crawl	-					

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

SIGHTINGS OF TURTLES BETWEEN APRIL 8-AUGUST 20,1983

Dc - Dermochelys coriacea
Cm - Chelonia mydas

DATE	BEACH	SPECIES SYMBOL	TIME SEEN	ACTIVITY	TIME OF RE-ENTRY	LENGTH OF CARAPACE (cm)	WIDTH OF CARAPACE (cm)	LENGTH OF FLIPPER (cm)	NO. OF EGGS	TAG Nº
08/05	North Matura	Dc	2145	Emergence	0245	-	-	-	105	
08/05	North Matura	Dc	0030	False crawl	-	-	-	-	-	
[illegible]	North Matura	Dc	2300	Digging nest	-	149.9	134.6	86.9	82	HHC 004 Left [illegible]
[illegible]	North Matura	Dc	2045	Covering nest	2132	157.5	113.0	94.[illegible]	-	Recapture [illegible]
15/05	North Matura	Dc	2125	False crawl	2135	-	-	-	-	
15/05	North Matura	Dc	2235	Digging nest False crawl	2350	157.7	110.4			
15/05	North Matura	Dc	2240	Laying eggs	2325	157.5	116.8	96.5	117 9 infertile included	T1390 Left front + AAD 230 Epoxy
15/05	Central Matura	Dc	2210	Digging nest	-	155.6	118.0	-	76	HHC 005 Left rear HHC 006 Left [illegible]
18/05	North Matura	Dc	2220	Digging nest	2317	-	-	-	99	Recapture [illegible] removed HHC 007 Left rear HHC 008 Right front
21/05	North Matura	Dc	2300	Covering nest	-	139.7	109.3	-	-	
21/05	North Matura	Dc	2300	Digging nest	-	-	-	-	76	Recapture AAD 2[illegible] HHC 009 Left rear HHC 010 Right front
21/05	North Matura	Dc	0050	Selecting nesting spot	-	-	-	-	-	Recapture AAD [illegible]
[illegible]	Grande Riviere	Dc	2005	Emergence	2141	156.0	111.[illegible]	86.3	116 including 26 infertile	HHC 012 Left [illegible] HHC 013 Right [illegible] AAD 237 Epoxy
[illegible]	Grande Riviere	Dc	2318	Fresh slaughter before nesting	-	144.7	104.3	92.7		
[illegible]	North Matura	Dc	3030	Selecting nest site	2155	160	121	95	105 including 25 infertile	
22/05	North Matura	Dc	2200	Re-covering nest	2300	-	-	-		
23/05	North Matura	Dc	2215	Covering nest	-	-	-	-		
23/05	North Matura	Dc	2225	Laying eggs	2300	160	132	95		
[illegible]	North Matura	Dc	2245	Laying eggs	2040	150	127	86		
[illegible]	North Matura	Dc	2170	Camouflaging nest	2345					
[illegible]	North Matura	Dc	2350	Camouflaging nest	0010	-	-	-		
22	North Matura	Dc	0040	In nest	False crawl	-				

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

SIGHTINGS OF TURTLES BETWEEN APRIL 8-AUGUST 20,1983

Dc - Dermochelys coriacea
Cm - Chelonia mydas

DATE	BEACH	SPECIES SYMBOL	TIME SEEN	ACTIVITY	TIME OF RE-ENTRY	LENGTH OF CARAPACE (cm)	WIDTH OF CARAPACE (cm)	LENGTH OF FLIPPER (cm)	NO. OF EGGS	TAG Nº
[illegible]/05	North Matura	Dc	2300	Emergence	-	150	100	90	-	HHC 032 Right rear flipper AAD 239 Epoxy
29/05	Paria	Dc	2115	Emerging	2255	156.0	111.7	85.0	90 including 15 infertile	AAD 280 Epoxy
29/05	Paria	Dc	2300	Digging nest	2340	162.5	116.0			AAD 281 Epoxy
29/05	Paria	Dc	2220	Emerged, looking for site	-	152.4	139.7	86.3	110 including 20 infertile	AAD 282 Epoxy
29/05	Grande Tacaribe	Dc	2125	Digging nest	-	161.3	119.4	-	81	AAD 240 Epoxy HHC 011 Right hind flipper
29/05	Grande Riviere	Dc	0030	Digging nest	-	160.1	110.0	-	85	AAD 245 Epoxy HHC 017 Right hind flipper
30/05	Grande Tacaribe	Dc	2110	Emerging	-	156.9	114.3	-	103	AAD 246 Epoxy HHC 018 Right hind flipper
30/05	G. Riviere	Dc	0030	Selecting nest site	-	-	-	-	-	
30/05	Grande Tacaribe	Dc		Selecting nest site	-	152.4	116.1	-	-	HHC 019 Right hind flipper
30/05	Grande Tacaribe	Dc	0034	-	-	161.6	110.4	-		HHC 021 Right hind flipper
30/05	Grande Tacaribe	Dc	0031	-	-	161.3	116.0	-	-	HHC 021 Left hind flipper
30/05	Murphy	Dc	-	-	-	156.0	111.0	97.0	107	AAD 241 Epoxy HHC 015 Right rear flipper
30/05	Murphy	Dc	-	False crawl	-	-	-	-	-	
01/06	North Matura	Dc	2315	Camouflaging area	2330	-	-	-	-	AAD 247 Epoxy AAD 259 Right front flipper Recapture
03/06	North Matura	Dc	0015	End of laying	0030	172.1	123.2	-	-	AAD 244 Epoxy
04/06	North Matura	Dc	-	-	-	-	-	-	-	Recapture AAC [illegible] AAD [illegible]
		Dc	-	-	-	-	-	-	-	
		Dc	-	-	-	-	-	-	-	
05/06	Grande Riviere	Dc	2205	Emerging	0025	149.0	106.7	87.8	130 including 31 infertile	AAD 240 Epoxy HHC 016 Right rear flipper
[illegible]/06	Grande Riviere	Dc	2215	Emerging False crawl	2330	-	-	-	-	
[illegible]/06	Grande Riviere	Dc	2250	Emerging	-	152.4	111.0	91.4	-	AAD 241 Epoxy HHC [illegible] Right rear flipper
[illegible]/06	Grande Riviere	Dc	2255	Emerging False crawl	[illegible]	-	-	-	-	
05/06	North Matura	Dc	2215	Covering nest		1[illegible].2	123.0			AAD 308 [illegible]
05/06	North Matura	Dc	2315	Selecting nest site	-	146.0	107.0		80	HHC 012 Rear flipper AAD 288 Epoxy
05/06	North Matura	Dc	-	-	-	-	-	-	1[illegible]	

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

SIGHTINGS OF TURTLES BETWEEN APRIL 8-AUGUST 20,1983

Dc - Dermochelys coriacea
Cm - Chelonia mydas
Lo - Lepidochelys olivacea
Ei - Eretmochelys imbricata

DATE	BEACH	SPECIES SYMBOL	TIME SEEN	ACTIVITY	TIME OF RE-ENTRY	LENGTH OF CARAPACE (cm)	WIDTH OF CARAPACE (cm)	LENGTH OF FLIPPER (cm)	NO. OF EGGS	TAG Nº
05/06	North Matura	Dc	-	False crawl	-	-	-	-	-	
05/06	North Matura	Dc	0052	Digging nest	-	160.0	116.3	-	-	AAD 226 Epoxy
07/06	North Matura	Dc	2130	Digging nest False crawl	-	-	-	-	-	
07/06	North Matura	Dc	2253	Digging nest	-	157.0	114.3	-	89	HHC 026 Right rear AAD 277 Epoxy
12/06	North Matura	Dc	2255	False crawl	2312	-	-	-		
13/06	Grande Riviere	Dc	0015	Emergence	-	160.0	111.7	80.9	-	HHC 031 Right rear
15/06	Las Cuevas	Dc	2300	Digging nest False crawl	0033	149.0	107.9	-	-	HHC 025 Right rear AAD 278 Epoxy
[illegible]/06	North Matura	Dc	2040	Selecting nest site False crawl	2112	-	-	-		
[illegible]	North Matura	Dc	2107	False crawl	2130					
[illegible]/06	North Matura	Dc	2115	Selecting nest site	-	154.0	106.6	93	10[illegible]	HHC 0[illegible] Right rear AAD 279 Epoxy
23/06	North Matura	Dc	2210	Camouflage nest	2230	160.0	114.3	-	-	HHC 027 Right rear
[illegible]/07	North Matura	Dc	3130	Digging nest	-	159.0	111.7	-	100	HHC 028 Left rear flipper HHC 020 Left front flipper
01/07	North Matura	Lo	2320	Emergence	0055	60.0	60.5	33.0	111	HHC 029 Right rear flipper HHC 030 Right front flipper
[illegible]/07	North Matura	Dc	-	Re-entry	-	-	-	-	-	HHC C03 Right rear flipper
[illegible]/07	North Matura	Dc	2341	Digging nest	-	150.3	109.3	100.1	-	HHC 044 Left rear flipper AAD 30[illegible] Epoxy
10/07	Salt Pond, Chatamba-care	Ei	2320	Digging nest	0030	67.0	76.2	39.3	170	HHC 045 Right rear flipper HHC 046 Left front flipper
01/08	Grande Tacaribe	Dc	2240	Did not emerge from surf	-	-	-	-	-	
04/08	North Matura	Dc	2134	Camouflaging nest	2155	156.2	111.7	-	-	HHC 0[illegible] Left rear flipper AAD 300 Epoxy

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

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

The method used for estimating the leatherback population at north Matura bay was used by Bacon (1973) to assess Matura bay during three nesting seasons 1970 - 1972.

Assuming that leatherbacks re-nest at intervals of about ten days & may nest up to seven times in a season, the number for a season may be estimated as twenty times the number nesting on an average night.

The number nesting on an average night was found by patrolling north Matura for 12 consecutive nights & averaging the number of females sighted per night. This was 1.04

Therefore the season's nesting population was
1.04 female / night × 20 = 20.8 females
The population for the entire bay was then found by multiplying this figure × 3
20.8 × 3 = 62. nesting females for the season.

Bacon, P.R. 1973. The Status & Management of Sea Turtle Resources in Trinidad & Tobago. Rep. to Permanent Secretary, Min. Agric. Lands & Food Prod.

NAME OF AREA (or give coordinates)	APPROX. AREA (Km²)	SPECIES FORAGING (Use abbreviations & approx. numbers)	NATURE OF EVIDENCE (Observation, Fishery, incidental catch)
1. Macqueripe Bay		E	Observation
2. Grande Riviere Bay		E, Cm	Fishery
3. Toco		E, Cm	Fishery, Observation
4. Salibia		E	Observation, Fishery
Rock off of [illegible]		D	Incidental catch
5. Salybia Bay		E	Observation, Fishery
Cumana Pt.		E	Observation
Soldado Rock		E, Cm	Observation, Fishery
6. Scotland Bay		Cm	Observation

TABLE 7. FORAGING AREAS INVENTORY
See attached map 6.

Species Abbreviations:

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

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

SIGHTINGS OF TURTLES BETWEEN MAY 11-AUGUST 13,1981

Dc - Dermochelys coriacea
Cm - Chelonia mydas

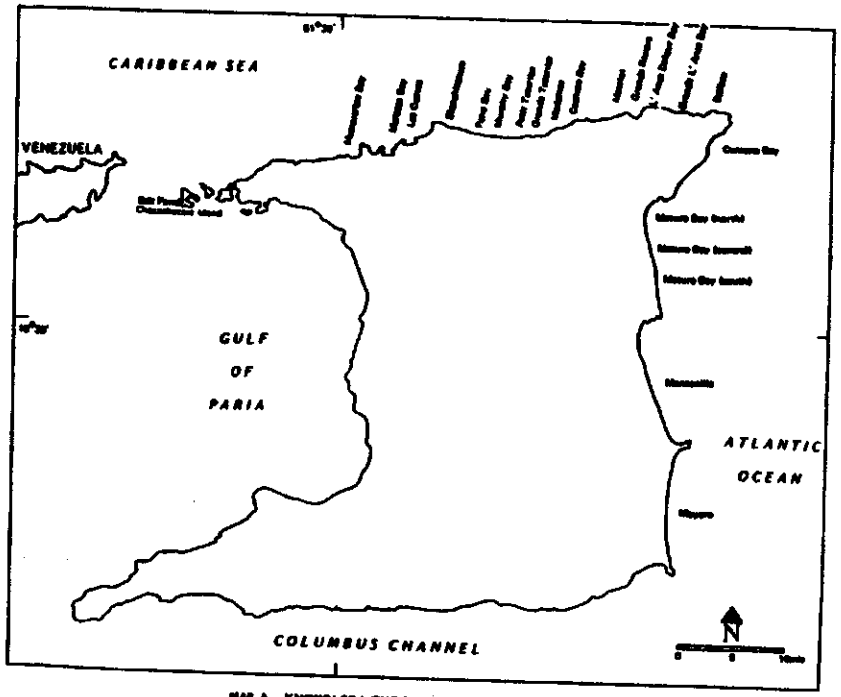
DATE	BEACH	SPECIES SYMBOL	TIME SEEN	ACTIVITY	TIME OF RE-ENTRY	LENGTH OF CARAPACE (cm)	WIDTH OF CARAPACE (cm)	LENGTH OF FLIPPER (cm)	NO. OF EGGS	TAG NO.
12/5/81	Matura	Dc	2130	Emergence	2330	162		91.3	112 Fertile 6 Infertile	
13/5/81	Matura	Dc	2143	Digging nest	2252	150	90.2	83.9	100 Fertile	
19/5/81	Matura	Dc	2015	Digging nest	2137	150	116.7	83.9	82 Fertile 34 Infertile	
20/5/81	Matura	Dc	2100	Re-entry	2105	165.3	116.2		Moving toward sea	
21/5/81	Matura	Dc	2100	Camouflaging nest	2300	167.5	109.2	91.4	Covering nest	
31/5/81	Matura	Dc	2145	Emergence	2330	167.4	104.3	83.6	Camouflaging nest	
[illegible]/6/81	Matura	Dc	2150	Re-entry	2155	162	122	93	Moving toward sea	
[illegible]/6/81	Matura	Dc	2005	Re-entry	2045				Re-entering sea	
[illegible]/6/81	Matura	Dc	2120	Being slaughtered		150.7	116.8	83.0		
[illegible]/6/81	Matura	Dc	2310	Digging nest	2331	154.9	116.0	Right 86.3 Left 88.9	87 Fertile 32 Infertile	
[illegible]/6/81	Matura	Dc	2150	Digging nest	2320	165	121.9	71.1	120 Fertile 5 Infertile	
[illegible]/6/81	Matura	Dc	[illegible]	False crawl	0037	181	No measurements taken		Moving up beach	
[illegible]/6/81	Matura	Dc	0055	Digging nest	0043	167	124	Right 75 Left 82	60 Fertile 30 Infertile	
[illegible]/6/81	Matura	Dc	0255	Emergence	0435	155	114	86		
[illegible]/6/81	Matura	Dc	2312	Re-entry	2316	Unable to obtain measurements, returning to sea too fast				
13/6/81	Matura	Dc	2100	Digging nest	2300	157	121.9	Right 76 Left 91	90 Fertile 34 Infertile	
[illegible]/6/81	Matura	Dc	2355	Digging nest	0150	148.0	130	96	87 Fertile 30 Infertile	
17/6/81	Matura	Dc	2135	Digging nest	2230	153	124	91	77 Fertile 27 Infertile	Right front
[illegible]/6/81	South of Matura R.	Cm	2300	Laying eggs	2317	86	76			
14/6/81	Matura	Dc	2140	Digging nest	2239	151	111	85	76 Fertile 30 Infertile	Right front Y1301
14/6/81	Matura	Dc	2250	Covering nest	2333	148	111	96	Covering nest	
15/6/81	Matura	Dc	2230	False crawl	2330	157			False crawl,	
15/6/81	Matura	Dc	0003	Digging nest	0131	162	109	Right 87 Left 90	104 Fertile Est. 17 Infertile	
[illegible]/6/81	Matura	Dc	2135	Digging nest	2200	158	111	89	70 Fertile 36 Infertile	
[illegible]/6/81	Matura	Dc	0001	Digging nest	0636	160	123		81 Fertile 25 Infertile	Left front AA0[illegible] & AA0[illegible]
[illegible]/6/81	Matura	Dc	2050	Emergence	2100	140	112		False crawl	
[illegible]/6/81	Matura	Dc	2306	Digging nest	2320	167	130	83	111 Fertile 30 Infertile	Left front AA0[illegible]

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

SIGHTINGS OF TURTLES BETWEEN MAY 11-AUGUST 13,1981

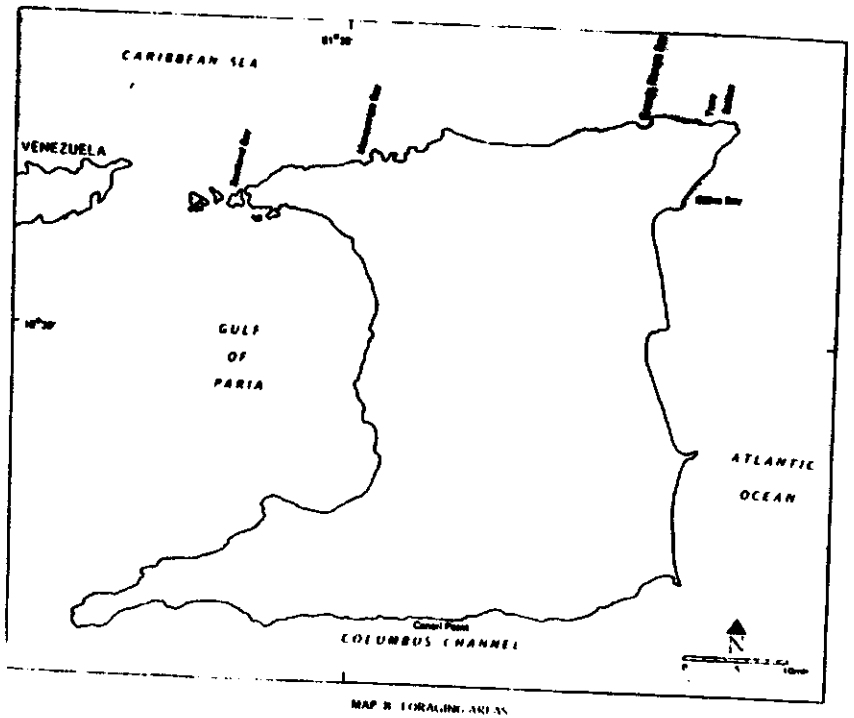
Dc - Dermochelys coriacea
Cm - Chelonia mydas

DATE	BEACH	SPECIES SYMBOL	TIME SEEN	ACTIVITY	TIME OF RE-ENTRY	LENGTH OF CARAPACE (cm)	WIDTH OF CARAPACE (cm)	LENGTH OF FLIPPER (cm)	NO. OF EGGS	TAG NO.
20/6/81	Matura	Dc	0100	Digging nest	0230	160	119	87	100 Fertile 36 Infertile	
22/6/81	Matura	Dc	2050	Covering nest	2136	160	121	88		
25/6/81	Matura	Dc		Being slaughtered		153	111			
29/6/81	Matura	Dc	2004	Digging nest	2155	140.5	115.5	70	80 Fertile 26 Infertile	
[illegible]/7/81	Matura	Dc	2131	Emergence	2349	160	124	83	87 Fertile 46 Infertile	Left front AA0[illegible]
[illegible]/7/81	Paria	Dc	2100	False crawl	2155	151	114	80	False crawl	
[illegible]/7/81	Paria	Dc	2110	False crawl	2309	152	116	86	False crawl	
[illegible]/7/81	Paria	Dc	2250	Emergence	0045	167	121	91	105 Fertile	Recapture - Right front Y1350
[illegible]/7/81	Matura	Dc	2144	False crawl	2240	160	111	88	False crawl	
21/7/81	Matura	Dc	2147	Laying eggs	2229	160	114	Right 91 Left 99	84 Fertile 1 Infertile	Right front AA0[illegible]
30/7/81	Matura	Dc	2100	Digging nest	2236	167.6	111.7	88.3	83 Fertile 12 Infertile	Y130[illegible]
[illegible]/7/81	Matura	Dc	2110	Camouflaging nest	2323	171.0	127	104	Covering nest	



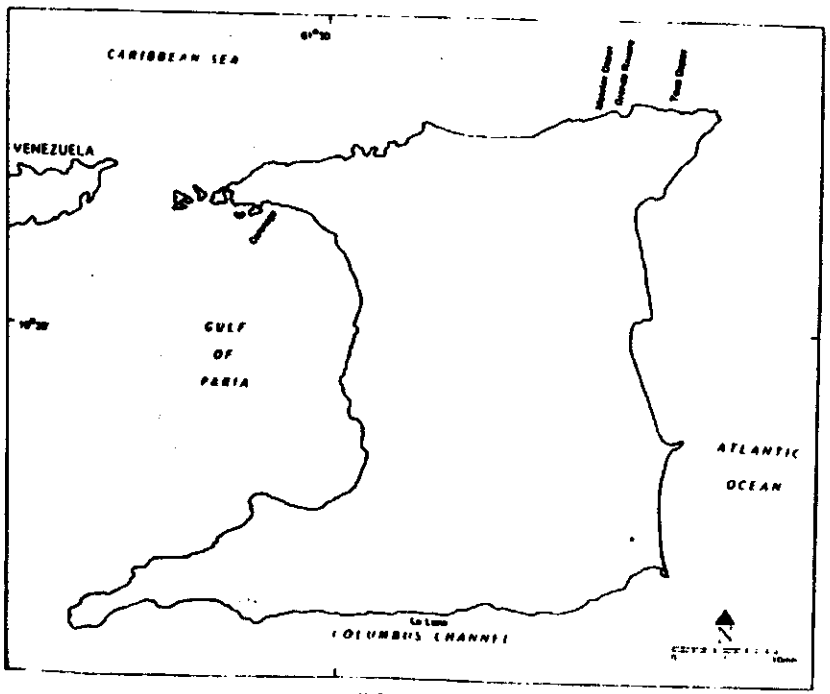
MAP A KNOWN SEA TURTLE NESTING BEACHES IN TRINIDAD

SEE TABLE 3.



MAP B FORAGING AREAS

SEE TABLE 7.



MAP C LANDING SITES

See TABLE 11

NAME OF PORT OR SITE	SPECIES LANDED (Use abbrev)	FISHING GEAR USED	MONTHS OF LANDINGS	NUMBERS & WEIGHTS (Estimate
1. Matelot Depot	Cm, Ei	TURTLE NETS	Oct. - March	
2. Grande Riviere Depot	Cm Ei, Lo	TURTLE NETS, HARPOONS	Oct - March	
3. Toco Depot	Cm Ei, Lo	TURTLE NETS, HARPOONS	Oct - March	
4. La Lune Depot	Cm, Ei	TURTLE NETS	Oct - March	
5. Cumana Depot	Cm Ei, Lo	TURTLE NETS, HARPOONS	Oct - March	
6.				
7.				
8.				

TABLE 11. LANDING SITES FOR TURTLES & TURTLE PRODUCTS

See Appendix MAP C.

Species Abbreviations:

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

TURTLE PRODUCT	YEARS 1982	1981	1980	CURRENT MARKET Price/Unit	METHODS OF DATA COLLECTION
No. of eggs	Not Sold				
Meat (Kg)					INTERVIEW FISHERMEN
Shell No./Wt.					INTERVIEW FISHERMEN
Skins No./Wt.	NOT SOLD				
Stuffed Juveniles	NOT SOLD				
Other					

SPECIES Cm, E, Lo all species treated alike

TABLE 15. ___ OFFICIAL STATISTICS OF TURTLE PRODUCTION
Complete one of these tables for each species taken in the fishery.

ACTIVITY	TOTAL ANNUAL NUMBERS OF PERSONS	EST. ANNUAL INCOME FROM TURTLES	COMMENTS
Fishing	All		Because of seasonality of shell activity, turtle fishing is supplementary to fishing livelihood. No one totally dependent on turtle fishing.
Processing			
Selling			

TABLE 16. EMPLOYMENT DEPENDENT ON TURTLES

TABLE 18. 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: Subsistance exploitation

1. Estimated number of eggs: _____
2. Estimated number of nesting females: _____
3. Number of turtles caught at sea: _____
4. Other: _____

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.).

St Peter's Day Fishermen's Festival in early July. Different sea foods are prepared for an all day festival. Turtles are caught & prepared since though the season occurs during official Closed Turtle hunting season.

SPECIES	HATCHERY OPERATIONS: EGGS COLLECT.	EGGS HATCHED	NO. RELEASED	AGE AT RELEASE	NO. RETAINED	HOLDING LIVE TURTLES: NO. OF JUVS.	ADULT FEMALES	ADULT MALES
Caretta caretta								
Chelonia mydas								
Dermochelys coriacea	158	61	15	2 hours	4			
Eretmochelys imbricata								
Lepidochelys kempi								
Lepidochelys olivacea								

YEAR 1981

TABLE 17 - 1 TURTLE MARICULTURE OPERATIONS
This table quantifies activities concerned with turtle culture for either conservation, population enhancement experiments, or commercial use. Activities to be included are "headstarting", re-nesting, incubation and release, etc.
Prepare separate table for each year of available data.

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SPECIES	HATCHERY OPERATIONS					HOLDING LIVE TURTLES		
	EGGS COLLECT.	EGGS HATCHED	NO. RELEASED	AGE AT RELEASE	NO. RETAINED	NO. OF EGGS	ADULT FEMALES	ADULT MALES
Caretta caretta								
Chelonia mydas								
Dermochelys coriacea	261	58	45	2-4hrs	4			
Eretmochelys imbricata	165	75	43	4hrs	24	20		
Lepidochelys kempi								
Lepidochelys olivacea	60	5	none		3	3		

TRINIDAD/TOBAGO

YEAR 1982

TABLE 17 - 3 TURTLE MARICULTURE OPERATIONS
This table quantifies activities concerned with turtle culture for either conservation, population enhancement experiments, or commercial use. Activities to be included are "headstarting", re-nesting, incubation and release, etc.
Prepare separate table for each year of available data.

SPECIES	HATCHERY OPERATIONS					HOLDING LIVE TURTLES		
	EGGS COLLECT.	EGGS HATCHED	NO. RELEASED	AGE AT RELEASE	NO. RETAINED	NO. OF EGGS	ADULT FEMALES	ADULT MALES
Caretta caretta								
Chelonia mydas								
Dermochelys coriacea								
Eretmochelys imbricata						2		
Lepidochelys kempi								
Lepidochelys olivacea								

TRINIDAD/TOBAGO

YEAR 1983

TABLE 17 - 3 TURTLE MARICULTURE OPERATIONS
This table quantifies activities concerned with turtle culture for either conservation, population enhancement experiments, or commercial use. Activities to be included are "headstarting", re-nesting, incubation and release, etc.
Prepare separate table for each year of available data.

INSTITUTION OR ORGANIZATION NAME AND ADDRESS	NO. OF ACTIVE MEMBERS	ACTIVITIES IN PROGRESS
Institute of Marine Affairs	2	RESEARCH - to determine current nesting population of leatherback turtles at Matura Beach - to determine demand & market viability of turtle meat & products in Trinidad - to determine feasibility of hatching and rearing a stock for marketing - to collect biological data on nesting Turtles
Tamana Field Naturalists Club		Observing & tagging of leatherbacks during lamp outings

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

NAME AND ADDRESS OF ORGANIZATION	BUDGET ALLOCATION TO TURTLES	NO. OF STAFF ASSIGNED TO TURTLES	COMMENTS ON LEVELS OF ENFORCEMENT
FORESTRY DIVISION MINISTRY AGRICULTURE, LANDS & FOOD PRODUCTION			During the 1982 turtle nesting season a unilateral order was published most publicly by stating that the taking of turtles & eggs was an offence according to the 1975 Turtle Protection Regulations. Even though these regulations fall under the Fisheries Act, no enforcement of the law is present.

TRINIDAD - TOBAGO

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

TRINIDAD-TOBAGO

TABLE 20. REGULATORY AUTHORITY
(Supplementary page)

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

Marine Areas (Preservation + Enhancement) Regulations 1974
Reduction of entry, interference + removal of fish (includes turtles + turtle eggs) from restricted areas
- Nine Buccoo Reef — See attached

Fisheries Act 1916
Regulates - fishing in waters of Trinidad + Tobago -
- mesh size of nets + use of nets
- size of turtles taken, prohibition of sale of turtles below prescribed size
- prohibition + taking of fish in restricted area
See attached

Protection of Turtle + Turtle Eggs Regulations 1975
1. Prohibition against taking possession of female turtle, or taking, removing or selling turtle eggs.
2. Restriction on killing, harpooning + selling turtle

See attached.

PROJECT TITLE	DATES START	DATES END	NAME & ADDRESS OF INSTITUTION & CHIEF INVESTIGATOR
Investigations on the nesting, hatching + feeding of the Leatherback turtle Includes: POPULATION estimate of nesting leatherbacks at Matura Bay : MIGRATORY SURVEY ON MOBILIZATION OF TURTLES : FEASIBILITY STUDY ON KEEPING MAMMALS IN CAPTIVITY.	MAY 1981	DEC 1983	INSTITUTE OF MARINE AFFAIRS P.O. Box 3160 CARENAGE, TRINIDAD INVESTIGATOR: LORI M. CHAN CHOW

TABLE 21. NATIONAL RESEARCH PROJECTS
List turtle research activities funded within your country.

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. Brown P.R. 1967 Leatherback Turtles. J. Trin. Field Nat Club 2-3
2. ——— 1969 The Leatherback Turtle Project, Progress Report 1967-1968 + recommendations J. Trin Field Nat Club 8-9
3. ——— 1969 Report on the Trinidad Sea Turtle Conservation Project Ann. Rep. Trin Field Nat Club 18-35.
4. ——— 1970a Studies on the leatherback Turtle, Dermochelys coriacea (L) in Trinidad, West Indies Bull Londonwater 2(3) 213-217
5. ——— 1970b Animal Restrictions make safe nesting possible J. Int Turtle + Tortoise Soc 4(3): 6-7.
6. ——— 1970c The Status of Sea Turtle Conservation in Trinidad. Environmental Newsletter Carib. Conn. Assoc. 1(2) 14-17
7. ——— 1971a Sea Turtles in Trinidad + Tobago In Proc. 2nd working meeting IUCN Marine Turtle Specialist Group IUCN Publ New Ser. Suppl Pap N: 21: 79-82.
8. ——— 1971b Tagged Turtles J. Int. Turtle + Tortoise Soc. 5(3) :36-39
9. ——— 1973 Observations on the Loss of Tags by Sea Turtles. J. Trin Field Nat Club. 68-77
10. ——— 1973 The Status + Management of the Sea Turtle Resources of Trinidad + Tobago Rep. to Permanent Secretary Min. Agric. Lands + Food Prod. W.I.
11. ——— 1975 The Orientation Cycle in the Beach Nesting Crawl of the Leatherback turtle, Dermochelys coriacea, in Trinidad. Herpetologica 29 (3) 343-348
12. ——— 1975 Review on Research, Exploitation + Management of the stocks of Sea Turtles in the Caribbean Region FAO Fisheries Circular No. 334, 1975
13. Brown, P.R. + Hahnert, G.K. 1971. Further studies on Sea turtles in Trinidad + Tobago. J. Trin. Field Nat Club. 1971; 2-17
14.
15.
16.