THE NATIONAL REPORT
EL REPORTE NACIONAL

FOR THE COUNTRY OF
POR EL PAIS DE

SAINT LUCIA
SANTA LUCIA

NATIONAL REPRESENTATIVE / REPRESENTANTE NACIONAL

PETER A. MURRAY

Western Atlantic Turtle Symposium
Simposio de Tortugas del Atlantico Occidental

17-22 July / Julio 1983
San José, Costa Rica
St. Lucia National Report, WATS I Vol 3, pages 370-380

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

NATIONAL REPORT FOR THE COUNTRY OF

ST. LUCIA

NATIONAL REPORT PRESENTED BY

Peter Murray
The National Representative

Address:
c/o Fisheries Management Unit
Ministry of Agriculture, Lands and Fisheries
& Cooperatives
Castries, St. Lucia

NATIONAL REPORT PREPARED BY

Peter Murray

DATE SUBMITTED: 11 November 1982

Please submit this NATIONAL REPORT no later than 1 December1982 to:

IOC Assistant Secretary for IOCARIBE
% UNDP, Apartado 4540
San José, Costa Rica

St. Lucia National Report, WATS I Vol 3, pages 370-380

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:

Murray, P.A. 1984. National Report for Saint Lucia, pp.370-380. *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: ST. LUCIA

INTRODUCTION

Beginning May 14, 1982 a sea turtle study of St. Lucia was conducted. This study had to be spread over a five month period since it was not possible for the investigation to be carried out in a short intensive study. The purpose of this study was to obtain data to complete a national report of St. Lucia for the Western Atlantic Turtle Symposium (W.AT.S.) to be held in July 1983 in San Jose, Costa Rica.

The following guidelines were used to collect the data:

1. Conduct surveys of the marine shoreline of St. Lucia
   a. Record all sign of sea turtle tracks and nests on nesting beaches to determine the extent of nesting activity.
   b. Record the type of shoreline present-to record actual or potential sea turtle nesting beaches.
2. Compile all available data to determine the status of sea turtle populations.
3. Review present conservation and management programs in regard 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 St. Lucia.

GENERAL GEOGRAPHIC DESCRIPTION OF ST. LUCIA

St. Lucia is a newly independent nation, comprising of the main island adjoined by four (4) islets: Pigeon Islet in the Northwest was recently joined to the mainland by a cause-way; Rat Island just Northwest of the capital city of Castries; and the two Maria Islets to the east of the southern most extremity of the island. St. Lucia is situated at latitude 13 N and longitude 61 W, just south of Martinique (one of the French West Indian Islands) and north of St. Vincent. St. Lucia has an area of 512.8 square kilometers.

The population of St. Lucia was estimated in 1980 at 120,300.

COASTLINE AND OFFSHORE AREAS

The coastline of St. Lucia is fairly varied, with roughly 29.9% of its length being cliffs and 11.5% being sand beaches. On the east coast can be found the moderate to high energy beaches. The vegetation varies greatly along the length of the east coast, from sea grapes and coconut trees, in some areas, to white cedar and shrubs in other areas. The beaches on the east coast tend to be reasonably long by West Indian standards, one being as long as 1.6 kilometers.

The sand appears to be mainly biogenic marine carbonate with a small terrigenous component. The sand ranges from fine grained to medium grained, on occasion one type being seen on either of two adjacent beaches. The colour ranges from light tan (mainly) to dark gray.

In addition to the long stretches of sandy beaches, the east (Windward) coast has areas of sheer rocky coastline. The major communities of mangrove on the island are to be observed on the east coast.

The West coastline of St. Lucia is much more rugged with mountains and hills that drop off straight into the sea. There are, however, a number of relatively short beaches made up of medium to coarse grained particles.

The offshore areas of St. Lucia are reasonably diverse. Unmapped grass beds can be found in water of one to two meters depth, comprised of a large extent of *Thalassia* and *Syringodium*.

The south-eastern coast of the island has the major fringing reef systems running from Saltibus point southwards to Moule-a-Chique. These reefs contain a reasonable diversity of marine flora and fauna, but are not as esthetically pleasing as the west coast patch reefs found close inshore in areas less than twenty-five meters from shore.

HISTORY OF SEA TURTLES IN ST. LUCIA

Sea turtles have been a significant factor in the diets of the inhabitants of coastal areas of St. Lucia. In fact some fishermen have been known to fish only for turtle during the open season (September to April). Green Turtle, Hawksbill, Leatherback and occasionally Loggerheads are captured. The Turtle industry of St. Lucia started circa 1937. Live Green Turtles were shipped to England and the U.S.A. up to 1941 after which time dried green turtle was shipped. Around 1949 green turtles began being imported from Aves Island and landed at Castries; this took place during the local closed season under special licence; up to three hundred turtles would be brought in. Some of this turtle meat was sold locally up to 1975. Turtle meat was being shipped from St. Lucia to Hamburg, Germany up to 1979 after being brought in from Aves. Presently turtle is imported from other islands and re-exported to Germany. Bebel (1974) quotes landing estimates for 1969 as being 17,046 kilograms of green turtle and 10,909 kilograms of hawksbill turtle. The closed season is in effect from 1st May to 31st August, but does not apply to animals taken outside territorial waters.

Turtles are caught in nets and when they come ashore to lay eggs, although this latter practice is illegal. The problem is however, that though the nesting females and their eggs are protected by law, there is no adequate means of enforcing the legislation. In addition, only hawksbill and green turtle are protected; the legislation does not include the leatherback sea turtles.

STATE OF KNOWLEDGE OF SEA TURTLES

Only as a result of this survey is a significant amount of knowledge coming to hand about the sea turtle population of St. Lucia. Prior to preparation for the W.A.T.S. there was in fact no attempt at a systematic study of these animals. What little is known comes from three main sources: fishermen's takes, incidental observations by local sport divers, and a survey conducted by Anne Meylan and Archie Carr in 1979.

Information from these three sources as well as the present survey indicates that there is significant nesting activity for the green, hawksbill and leatherback turtle on the island. Most of the crawls observed belong to leatherback sea turtles, and a few belong to hawksbill and green turtles. No crawls belonging to loggerheads were observed.

The more active turtle fishermen however have described sea turtles which appear to fit the description of loggerhead sea turtles.

Local fishermen and some professional dive tour leaders have given information which indicates a reasonably large population of juvenile green sea turtles present in the waters of the south western coast of the island. Though the magnitude of the population has not been verifies, staff members of the Fisheries Management Unit have sighted green turtles near patch reefs on the west coast of the island.

Recently the fisheries Management Unit bought five green sea turtles from a local fisherman ranging in weight from 7.3 kilograms to 15.2 kilograms (35.6 cm to 55.9 cm carapace length). These turtles, which had been caught on the east coast of the island, were tagged and released on a secluded beach further south. It is hoped that this beach would be imprinted on the turtles, and that at some subsequent time if not caught, they will return to that beach. This was the first recorded turtle tagging experiment carried out in St. Lucia to the best knowledge of this investigator.

One member of the Fisheries Management Unit has sighted a hawksbill hatchling in mid-October on an east coast beach entering the sea, indicating some hawksbill nesting activity on that coast.

Beach surveys on the east (Windward) coast of the island, have indicated a fair amount of leatherback turtle nesting; this has been known by the inhabitants of that part of the island for some time as shown by the number of leatherback carcasses found in Grand Anse Beach, which has a length of 1.60 kilometers and an average width of 53.2 meters.

In a period ranging from May 14, 1982 to June 16, 1982, seven leatherback carcasses were found as well as six crescent shaped sets of tracks (indicating successful nesting and escape) and one nest with the tracks to and from it washed away.

Interviews with fishermen suggest that the largest observations of Green and Hawksbill turtles have been made on the west coast of St. Lucia. It is not possible to state conclusively whether these turtles were foraging or basking. In one day in late August four green and one hawksbill were landed in the village of Canaries. It seems fairly certain that the nesting season for turtles in St. Lucia is from May to August each year, but there appears to be the distinct possibility that nesting may continue into mid-September.

Fishermen have indicated the numbers of sea turtles seen, and/or captured in 1982 showed a significant decrease relative to 1980 and a major decrease since relative to 1972. One interviewer suggests that circa 1962 leatherback sea turtles were the least abundant in St. Lucian waters and that nesting of green and hawksbill sea turtles may be at the same level but since there are less turtle fishermen in evidence, indications of these turtles' presence go more unnoticed.

METHODS

Due to temporal constraints, only two strategies were used to obtain information to prepare the national report for St. Lucia:

1. Beach survey of known nesting beaches and potential nesting beaches,
2. Conducting personal interviews with local fishermen.

It must be acknowledged that the investigation was aided by the volunteered assistance of members of the St. Lucia Naturalist society, particular note being made of Mr. Terry Cross who spent a number of hours of his spare time walking beaches and visiting beaches at night in the hope of seeing emergent turtles.

BEACH SURVEYS

Daytime visits were made to known turtle nesting beaches or beaches that were potential nesting beaches (identification of the latter was carried out using criteria indicated by Anne Meylan in a personal communication). These visits were all made by land and the observers walked the entire length of the beaches. In addition to recording nesting activity and other signs of turtle presence, the observers noted the nature of the sand (colour, grain size). This latter determination was perforce subjective, since the facilities and knowledge base were not available for objective analysis.

A number of night watches were staged by members of the fisheries Management Unit and volunteers from the Naturalists Society in the hope that sighting of turtle, coming to nest, would be made. On one occasion a two-shift, twenty-hour watch was carried out nine days after finding signs of a successful nesting which appeared to be no more than three days old. This particular watch however proved futile.

INTERVIEW WITH FISHERMEN AND LOCAL INHABITANTS

Six local fishermen and a number of other inhabitants of different areas were interviewed to gain information for this report. The general format found on pages 64-68 of the Sea Turtle Manual of Research and Conservation Techniques (June 1982) was followed, but not verbatim because of the necessity of dealing with two languages, English and Patois. Some interviews were carried out in the same days as a number of beach surveys.

RECOMMENDATIONS

Based on the findings of this survey, it is felt that the following recommendations would make a significant contribution to the survival of the sea turtles inhabiting the waters of St. Lucia.

1. The lobster, turtle and fish protection act number 13 of 1972 should be amended such that:
    a. All species of sea turtles are protected.
    b. The minimum legal weight for sea turtles becomes 13.608 kilograms (30 lbs.).
    c. The closed season be from April through September.

2. There should be active enforcement of the above act.

3. St. Lucia should become a signatory to C.I.T.E.S.

4. The taking of sea turtles should be restricted except for local consumption, with a maximum allowable yearly weight for the country.

5. A more intensive study be made the population of turtles (by species) in St. Lucian waters and a tagging program be properly instituted.

6. Major nesting beaches should be declared natural marine sanctuaries for sea turtles and pedestrian traffic on the sanctuaries be restricted from April through September, as well as the renewal of sand.

7. A public education programme be developed to include all aspects of the society and to stress the need to manage the sea turtle population so that its continued survival can be guaranteed.

TABLE 1. GEOGRAPHIC INVENTORY	
Length of Coastline*	190.975 Km **
Km^2 of Continental Shelf Area	
Seaward Extent of Jurisdictions	
Territorial Sea	4.8 Km
Extended Economic Zone	
Fisheries Jurisdiction	4.8 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.
** See *Editor's note (2009)*, Table 2

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE			
	Km of Shoreline		
Marine Shoreline Characteristics*	Undeveloped	Developed**	Total
1. Sand Beach (Total)			21.975
A. High Energy			
B. Low Energy			
2. Reef (exposed)			
3. Rocks			
4. Cliffs			57.075
5. Vegetation (Total)			
A. Vines			
B. Grasses			
C. Mangroves			
D. Coconut Trees			
E. Other Trees or Shrubs			
F. Marshes			
6. Mouths of Lagoons, Rivers, Canals			1.300
7. Total Shoreline			***80.350

* Refer to SEA TURTLE MANUAL (Aerial Survey)
** Human development or use (See MANUAL)
*** *Editor's note (2009):* Shoreline Total was corrected from values given in the original National Report to reflect accuracy in summed values. Original National Report listed Total Shoreline as 190.975 Km.

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. Grande Anse	1.60	D	May, June, July
2. Cariblue	0.21	E	August
3. Anse Ger	0.29	D	June
4. Anse Troumassee	0.12	D ?	June
5. Trou l'Oranger	0.09	Cm, E ?	June, July
6. Anse Micoud	0.71	E ?, D ?	June
7. Anse Chastanet	0.25	Cm, E	July
8. Dennery	0.37	E	July, August
9. Anse de Sables	2.41	Cm ?, E ?	?
10. Anse Commerette	0.19	Cm ?, E ?	May, June, July ?
11. Honeymoon		Cm, E	?
12. Fond d'Or	0.97	Cc ?, D ?, E ?	?
13. Anse Lapins	0.55	Cc ?, E ?	?

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.

Beach	Sand Colour	Particle Size	Shape	Energy	Backbeach Vegetation	Artificial Light
Grande Anse*	White	M-F	*1/4	H	Shrubs, coconuts	-
Cariblue	Light grey	M-C	1/24	L	Sparse due to hotel	+
Anse Ger	White	F	1/49	M	Shrubs	-
Anse Troumassee	White	C	1/57	H	Shrubs, coconuts	-
Trou l'Oranger	White	K	1/5	L-M	Trees, shrubs	-
Anse Micoud	White & Grey	F	1/21	M-H	Cliff	-
Anse Chastanet	White	K	1/4	L	Hotel	+
Dennery	White	F-M	1/20	M	-	+
Anse de Sables	White	K	1/32	M	Shrubs	+
Anse Commerette	White	F	1/3	M	Shrub	-
Honeymoon	White	M-F	-	M	Mixed	-
Fond d'Or	White	M-F	1/50	M-H	Coconut estate, shrubs	-
Anse Lapins	White	F	1/3	L-M	-	-

* Grand Anse beach has an average width of 60 meters; nearest to the sea the beach has a very steep gradient for an average of 5 metres for the MHW line. This is the slope recorded above similarly for Anse Commerette.

TABLE 4.1. NESTING CENSUS FOR BEACH: Grande Anse

Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.

Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	3	18	14 May; 16 June; 19 June; 29 June; 05 July; 13&14 July
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.2. NESTING CENSUS FOR BEACH: Cariblue

Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.

Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	1	3	31 July; 02 August
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.3. NESTING CENSUS FOR BEACH: Anse Ger			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	1	2	22 June
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.4. NESTING CENSUS FOR BEACH: Anse Troumassee			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	1	2	22 & 26 June
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.5. NESTING CENSUS FOR BEACH: Trou L'oranger			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas	1	1	22 June
Dermochelys coriacea			
Eretmochelys imbricata	1	2	05 and 22 July
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.6. NESTING CENSUS FOR BEACH: Anse Micoud			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas	?	2	22 June
Dermochelys coriacea			
Eretmochelys imbricata	?	3	22 June
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.7. NESTING CENSUS FOR BEACH: Anse Chastanet			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas	1	3	10 July
Dermochelys coriacea			
Eretmochelys imbricata	1	1	10 July
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.8. NESTING CENSUS FOR BEACH: Dennery			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	1	2	10 October
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.9. NESTING CENSUS FOR BEACH: Anse De Sables			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas	?	?	07 July
Dermochelys coriacea			
Eretmochelys imbricata	?	?	07 July
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.10. NESTING CENSUS FOR BEACH: Anse Commerette			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas	?	?	May, June 1982
Dermochelys coriacea			
Eretmochelys imbricata	?	?	May, June 1982
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.11. NESTING CENSUS FOR BEACH: Honeymoon			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta			
Chelonia mydas	?	?	07 July, 1982
Dermochelys coriacea			
Eretmochelys imbricata	?	?	07 July, 1982
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.12. NESTING CENSUS FOR BEACH: Fond D'or			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta	?	?	June 1972
Chelonia mydas			
Dermochelys coriacea	?	?	June 1972
Eretmochelys imbricata	?	?	June 1972
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4.13. NESTING CENSUS FOR BEACH: Anse Lapins			
Table summarizes census data for each beach listed in Table 3. Tables numbered sequentially.			
Species	Number of Nests		Dates of collection
	Nest/Night (average)	Nest/Season (estimated)	
Caretta caretta	?	?	June 1982
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	?	?	June 1982
Lepidochelys kempi			
Lepidochelys olivacea			

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
14 May 1982	Anse Commerette, Anse Lapins, Grande Anse			2				
16 May 1982	Grande Anse			5				
19 May 1982	Grande Anse			1				
22 June 1982	Anse Ger, Anse Micoud, Anse Troumassee							

05 July 1982	Grande Anse			2				
13 July 1982	Grande Anse							
19 July 1982	Anse de Sables							
22 July 1982	Trou l'Oranger				1			

Species	Abbreviation
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.

Note: Aerial surveys were not carried out. All information obtained for nesting beaches were from ground observations and interviews.

14 May 1982 Grande Anse: in addition to 2 tracks, 4 carcasses of leatherbacks were found.

16 June 1982 Grande Anse: 3 new carcasses were found in addition to the 5 new sets of nesting tracks.

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
Caretta caretta	2					
Chelonia mydas	6					
Dermochelys coriacea	22					
Eretmochelys imbricata	11					
Lepidochelys kempi						
Lepidochelys olivacea						

TABLE 6 ESTIMATED POPULATION OF NESTING FEMALES (supplementary page)

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

Estimates for Table 6 obtained by adding estimated numbers of nests per season per beach for all the beaches considered in Tables 4.1 to 4.13, inclusive, and assuming that each nest represents one different female.

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. Anse Chastanet		Cm 30; E 10	Observation; incidental catch
2. Cicerion		Cm 30; E 10	Observation
3. Maria Islands/ V.F.		Cm 10; E 5	Observation; incidental catch
4. Dennery		Cm 5	Fishery

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

TABLE 8.1 TURTLE SPECIES PRESENT ON FORAGING AREAS: Anse Chastanet

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													
Chelonia mydas						X			X				September
Dermochelys coriacea													
Eretmochelys imbricata						X			X				September
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8.2 TURTLE SPECIES PRESENT ON FORAGING AREAS: Cicerion

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													
Chelonia mydas										X			?
Dermochelys coriacea													
Eretmochelys imbricata													
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8.3 TURTLE SPECIES PRESENT ON FORAGING AREAS: Maria Island

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													
Chelonia mydas						X			X				?
Dermochelys coriacea													
Eretmochelys imbricata						X			X				?
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8.4 TURTLE SPECIES PRESENT ON FORAGING AREAS: Dennery

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													
Chelonia mydas										X			?
Dermochelys coriacea													
Eretmochelys imbricata													
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 10. NATURAL MORTALITY

Life Stage Unit	Species (abbrev.)*	Causes**	Extent of Mortality (% of Unit)
Nests/eggs	Cc, Cm, D, E	Dogs, human intervention, pigs	70
Hatchlings	Cc, Cm, D******* , E	Unknown	?
Juveniles	Unknown	Unknown	
Adults (in water)	Cc, Cm, D, E	Human intervention (fishing or incidental catch)	25 - 40
Nesting females	Cc, Cm, D, E	Human intervention	50

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.

*** *Editor's note (2009):* In the original National Report this item was coded "C"; the Editor assumed a coding error and changed it to "D" based on the species codes available and other table entries.

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.

Below are data on carcasses, tracks and live turtles observed.

Total length (m)	Carapace length	Width (m)	Weight	Width of track (m)	Sex
Dermochelys coriacea					
1.38	*	0.85	*	**	F
1.45	*	0.80	*	**	F
**	**	**	**	1.5	F
**	1.48	N.C.	*	**	F
**	1.3	0.80	*	**	F
1.85	1.5	0.85	*	**	F
**	**	**	**	1.7	F
**	**	**	**	1.5	F
1.70	1.4	0.85	*	**	F
1.65	1.45	0.65	*	**	F
**	**	**	*	1.76	F
Chelonia mydas					
*	0.43	*	9.53	*	*
*	0.36	*	9.48	*	*
*	0.56	*	15.20	*	*
*	0.48	*	11.34	*	*
*	0.48	*	11.34	*	*

* Not determined

** Unavailable for measurement

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. Castries	Cm	"Turtle net"	September	5
2. Canaries	Cm, E	Net	September	4; 1
3. Vieux Fort	Cm	Net	September, November	4

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

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
Fisheries Management Unit Ministry of Agriculture, Lands, Fisheries and Co-Operatives Saint Lucia	10	WATS, Turtle Survey
Saint Lucia Naturalists Society Castries Saint Lucia		Aid Fisheries Management unit with WATS Survey

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
Fisheries Management Unit Ministry of Agriculture, Lands, Fisheries and Co-Operatives Saint Lucia	Nil	1	Manpower not available for proper enforcement
Royal Saint Lucia Police Force Saint Lucia	Nil	Nil	

TABLE 20A. REGULATORY AUTHORITY (supplementary page)

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

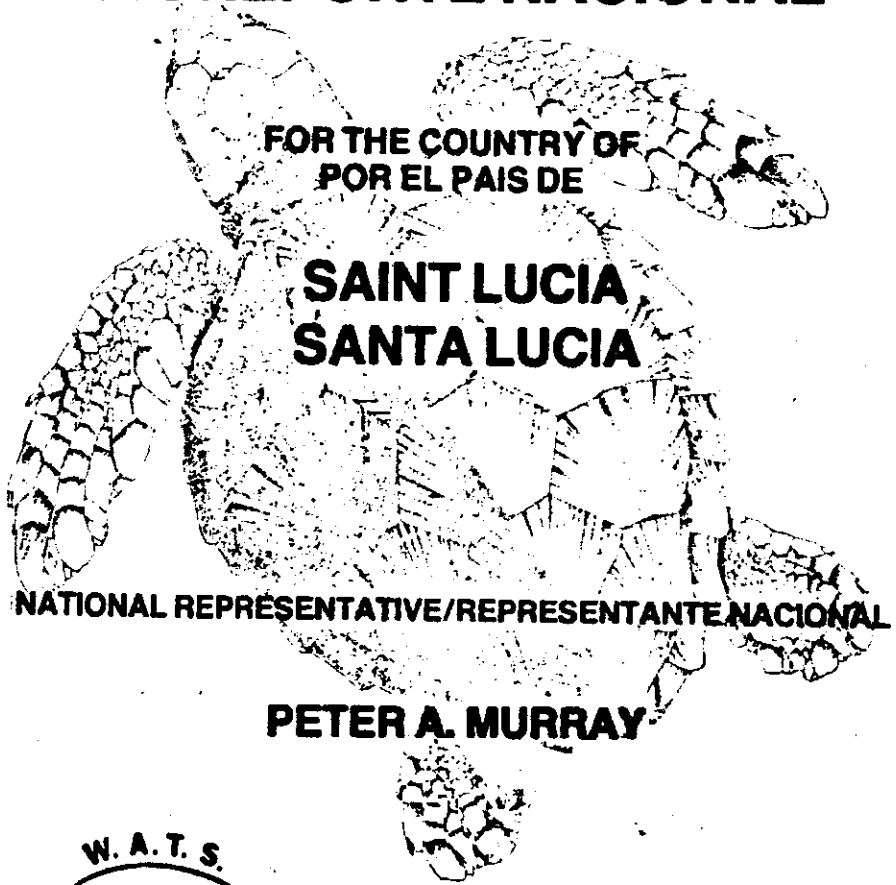
Fish, Lobster and turtle Protection Act No. 13 of 1971.

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	
WATS Turtle Survey	May 1982	Ongoing	Peter A. Murray Fisheries Management Unit, Ministry of Agriculture, Lands, Fisheries and Co-Operatives Saint Lucia

THE NATIONAL REPORT
EL REPORTE NACIONAL



FOR THE COUNTRY OF
POR EL PAIS DE

SAINT LUCIA
SANTA LUCIA

NATIONAL REPRESENTATIVE/REPRESENTANTE NACIONAL

PETER A. MURRAY

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

ST. LUCIA

NATIONAL REPORT PRESENTED BY

PETER A. MURRAY
The National Representative

Address: FISHERIES MANAGEMENT UNIT,
MINISTRY OF AGRICULTURE, LANDS, FISHERIES
& CO-OPERATIVES, CASTRIES, ST. LUCIA

NATIONAL REPORT PREPARED BY

PETER A. MURRAY

DATE SUBMITTED: 82/11/30

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

INTRODUCTION

Beginning May 14, 1982, a sea turtle study of St. Lucia was conducted. This study had to be spread over a five month period since it was not possible for the investigation to be carried out in a short intensive study. The purpose of this study was to obtain data to complete a national report of St. Lucia for the Western Atlantic Turtle Symposium (W.A.T.S.) to be held in July 1982 in San José, Costa Rica.

The following guidelines were used to collect the data:

1. Conduct surveys of the marine shoreline of St. Lucia.
   a. Record all sign of sea turtle tracks and nests or nesting beaches to determine the extent of nesting activity.
   b. Record the types of shoreline present - to record actual or potential sea turtle nesting beaches.
2. Compile all available data to determine the status of sea turtle populations.
3. Review present conservation and management programs in regard 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 St. Lucia.

GENERAL GEOGRAPHIC DESCRIPTION OF ST. LUCIA

St. Lucia is a newly independent nation, comprising of the main island adjoined by four (4) islets, Pigeon Islet is the Northwest one recently joined to the mainland by a causeway, Mat Island just Northwest of the capital city of Castries and the two Maria Islets to the east of the Southern most extremity of the island. St. Lucia is situated at latitude 13° and longitude 61°, just south of Martinique (one of the French West Indian Islands) and North of St. Vincent. St. Lucia has an area of 512.8 square kilometers.

The population of St. Lucia was estimated in 1980 at 120300.

COASTLINE AND OFFSHORE AREAS

The coastline of St. Lucia is fairly varied, with roughly 29.9% of its length being cliffs and 11.9% being sand beaches. On the east coast can be found the moderate to high energy beaches. The vegetation varies greatly along the length of the east coast, from sea grapes and coconut trees, in some areas, to white cedar and shrubs in other areas. The beaches on the east coast tend to be reasonably long by west Indian standards one being as long as 1.6kilometres.

The sand appears to be mainly biogenic marine carbonate with a small terrigenous component. The sand ranges from fine grained to medium grained, on occasion one type being seen on either of two adjacent beaches. The colour ranges from light tan (mainly) to dark gray.

In addition to the long stretches of sandy beach, the east (windward) coast has areas of sheer rocky coastline. The major communities of mangrove on the island are to be observed on the east coast.

The west coastline of St. Lucia is much more rugged with mountains and hills that drop off straight into the sea. There are however a number of relatively short sandy beaches, made up of medium to course grained particles.

The offshore areas of St. Lucia are reasonably diverse. Unmapped grass beds can be found in water of one to two meters depth, comprised of a large extent Thalassia and Syringodium.

The south-eastern coast of the island has the major fringing reef system running from Saltibus Point southwards to Moule-a-Chique. These reefs contain a reasonable diversity of marine flora and fauna, but are not as esthetically pleasing as the west coast patch reefs found close inshore in areas less than twenty-five metres from shore.

HISTORY OF SEA TURTLES IN ST. LUCIA

Sea Turtles have been a significant factor in the diets of the inhabitants of coastal areas of St. Lucia. In fact some fishermen have been known to fish only for turtle during the open season (September to April). Green Turtle, Hawksbill, Leatherback and occasionally some Loggerheads are captured. The turtle industry of St. Lucia started circa 1937. Live Green Turtles were shipped to England and the U.S.A. up to 1941 after which time dried green turtle was shipped. Around 1949 green turtles began being imported from Aves Island and landed at Castries; this took place during the local closed season under special licences; up to three hundred turtles would be brought in. Some of this turtle meat was sold locally up to 1975. Turtle was being shipped from St. Lucia to Hamburg, Germany up to 1979 after being brought in from Aves. Presently turtle is imported from other islands and re-exported to Germany. Bubel (1974) quotes landing estimates for 1969 as being 17046 kilograms of green turtle and 10909 kilograms of hawksbill turtle. The closed season is in effect from 1st May to 31st August, but does not apply to animals taken outside territorial waters.

Turtles are caught in nets and when they come ashore to lay eggs, although this latter practice is illegal. The problem however, that though the nesting females and their eggs are protected by law, there is no adequate means of enforcing the legislation. In addition only hawksbill and green turtle are protected, the legislation does not include leatherback sea turtles.

STATUS OF THE KNOWLEDGE OF SEA TURTLES

Only as a result of this survey is a significant amount of knowledge coming to hand about the sea turtle populations of St. Lucia. Prior to preparation for the W.A.T.S. there was infact no attempt at a systematic study of these animals. What little is known comes from three main sources, fishermen's takes, incidental observations by local sport divers and a survey conducted by Anne Meylan and Archie Carr in 1979.

Information from these three sources as well as the present survey indicates that there is a significant nesting activity for the green, hawksbill and leatherback turtle on the island. Most of the crawls observed belonged to leatherback sea turtles, and a few belonged to hawksbill and green turtles. No crawls belonging to loggerheads were observed.

The more active turtle fishermen however have described sea turtles which appear to fit the description of loggerhead sea turtles.

Local fishermen and some professional dive tour leaders have given information which indicates a reasonably large population of juvenile green sea turtles present in the waters of the south western coast of the island. Though the magnitude of the population has not been verified, staff members of the Fisheries Management Unit have sighted green turtles near patch reefs on the west coast of the island.

Recently the Fisheries Management Unit bought five green sea turtles from a local fisherman ranging in weight from 7.3 kilograms to 15.2 kilograms (35.6 cm to 55.9 cm carapace length). These turtles, which had been caught on the east coast of the island, were tagged and released on a secluded beach further south. It is hoped that this beach would be imprinted on the turtles, and that at some subsequent time if not caught, they will return to that beach. This was the first recorded turtle tagging experiment carried out in St. Lucia to the best knowledge of this investigator.

One member of the Fisheries Management Unit has sighted a hawksbill hatchling in mid October on an east coast beach entering the sea, indicating some hawksbill nesting activity on that coast.

Beach surveys on the east (Windward) coast of the island, have indicated a fair amount of leatherback turtle nesting; this has been known by the inhabitants of that part of the island for some time as shown by the number of leatherback carcasses found in Grand Anse Beach, which has a length of 1.60 kilometers and an average width of 53.2 metres.

In a period ranging from May 14, 1982, to June 16, 1982, seven leatherback carcasses were found as well as six crescent shaped sets of tracks (indicating successful nesting and escape) and one nest with the trunks to and from it washed away.

Interviews with fishermen suggest that the largest observations of Green and Hawksbill turtles have been made on the west coast of St. Lucia. It is not possible to state conclusively whether these turtles were foraging or basking. In one day in late August four green and one hawksbill were landed in the village of Canaries.

It seems fairly certain that the nesting season for turtles in St. Lucia

is from May to August each year, but there appears to be the distinct possibility that nesting may continue into mid-September.

Fishermen have indicated that the numbers of sea turtles seen, and/or captured in 1982 shows a significant decrease relative to 1980 and a major decrease relative to 1972. One interviewee suggests that circa 1962 leatherhead sea turtles were the least abundant in St. Lucian waters and that nestings of green and hawksbill sea turtles may be at the same level but since there are less turtle fishermen in evidence, indications of these turtles presence go more unnoticed.

METHODS

Due to temporal constraints, only two strategies were used for obtaining information to prepare the national report for St. Lucia:

1. Beach surveys of known nesting beaches and potential nesting beaches,
2. Conducting personal interviews with local fishermen.

It must be acknowledge that the investigation was aided by the volunteered assistance of members of the St. Lucia Naturalists Society, particular note being made of Mr. Terry Cross who spent a number of hours of his spare time walking beaches and visiting beaches at night in the hope of seeing emergent turtles.

BEACH SURVEYS

Daytime visits were made to known turtle nesting beaches or beaches that were potential nesting beaches (identification of the latter was carried out using criteria indicated by Anne Meylan in a personal communication). These visits were all made by land and the observers walked the entire length of the beaches. In addition to recording nesting activity and other signs of turtle presence, the observers noted the nature of the sand (colour, grain size): this latter determination was perforce subjective, since the facilities and knowledge base was not available for objective analysis.

A number of "night watches" were staged by members of the Fisheries Management Unit and volunteers from the Naturalists Society in the hope that sighting of turtles, coming to nest, would be made. On one occasion a two-shift, twenty hour watch was carried out nine days after finding signs of a successful nesting which appeared to be no more than three days old. This particular watch however proved futile.

Interviews with Fishermen and local inhabitants

Six local fishermen and a number of other inhabitants of different areas were interviewed to gain information for this report. The general format found on pages 64 - 66 of the Sea Turtle Manual of Research and Conservation Technique (June 1982) was followed, but not verbatim because of the necessity of dealing with two languages, English and Patois. Some interviews were carried out in the same days as a number of the beach surveys.

RECOMMENDATIONS

Based on the findings of this survey, it is felt that the following recommendations would make a significant contribution to the survival of the sea turtles inhabiting the waters of St. Lucia.

1. The lobster, turtle and fish protection act number 13 of 1972 should be amended such that:
   a. All species of sea turtles are protected.
   b. The minimum legal weight for sea turtles becomes 13.608 kilograms (30 lbs).
   c. The closed season be from April through September.
2. There should be active enforcement of the above act.
3. St. Lucia should become a signatory to C.I.T.E.S.
4. The taking of sea turtles should be restricted except for local consumption, with a maximum allowable yearly weight for the country.
5. A more intensive study be made of the population of turtles (by species) in St. Lucian waters and a tagging program be properly instituted.
6. Major nesting beaches should be declared natural marine sanctuaries for sea turtles and pedestrian traffic on the sanctuaries be restricted from April through September, as well as the removal of sand.
7. A public education programme be developed to include all aspects of the society and to stress the need to manage the sea turtle population so that its continued survival can be guaranteed.

Country _____

Length of Coastline* .... 190.275 ..... ____ Km

km^2 of Continental Shelf Area ..... ____ Km

Seaward Extent of Jurisdictions:

Territorial Sea ..... 4.8 ..... ____ Km

Extended Economic Zone ..... ____ Km

Fisheries Jurisdiction ..... 4.8 ..... ____ 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)			21.975
A. High Energy			
B. Low Energy			
2. Reef (exposed)			
3. Rocks			
4. Cliffs			57.075
5. Vegetation (Total)			
A. Vines			
B. Grasses			
C. Mangroves			
D. Coconut Trees			
E. Other Trees or Shrubs			
F. Marshes			
6. Mouths of lagoons, rivers, canals			1.300
7. Total Shoreline			150.975

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
1. Honeymoon Beach		E, Cm	?
2. Fond D'or	0.97	D(?); Cc(?); E(?)	?
3. Anse Lapins	0.55	Cc(?); E(?)	?
4.			
5.			
6.			
7.			
8.			
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

NAME OF BEACH	LENGTH IN KM	SPECIES NESTING (Use abbreviations)*	MONTHS OF RECORDED NESTING
1. Grand Anse	1.60	D	May, June, July
2. Cariblue	0.21	E	August
3. Anse Der	0.29	D	June
4. Anse Trouanase	0.12	D (?)	June
5. Trou l'Oranger	0.09	Cm; E(?)	June, July
6. Anse Kicoud	0.71	E(?) D(?)	June
7. Anse Chastanet	0.25	Cm; E	July
8. Donnery	0.37	E	July, August
9. Anse de Sables	0.41	Cm(?); E(?)	?
10. Anse Cemmerette	0.19	Cm(?); E(?)	May, June, July (?)

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.

Beach	SAND Colour	Particle Size	Shape	Energy	Back-beach Vegetation	Artificial Light
Grand Anse	White	M - F	*1/4	M	Shrubs, coconuts	-
Cariblue	Light Grey	M - C	1/24	L	Sparse due to hotel	+
Anse Der	White	F	1/49	M	Shrubs	-
Anse Trouanase	White	C	1/57	H	Shrubs, coconuts	-
Trou l'Oranger	White	M	1/5	L-M	Trees, shrubs	-
Anse Kicoud	White & Grey	F	1/21	M-H	Cliff	-
Anse Chastanet	White	M	1/4	L	Hotel	+
Donnery	White	F - M	1/20	M	---	+
Anse de Sables	White	M	1/32	M	Shrubs	+
Anse Cemmerette	White	F	1/3	M	Shrub	-
Honeymoon Beach	White	M - F	---	M	Mixed	-
Fond d'Or	White	M - F	1/50	M-H	Coconut estate Shrubs	-
Anse Lapins	White	F	1/3	L-M	----	-

* Grand Anse beach has an average width of 60 metres nearest to the sea the beach has a steep gradient for an average of 5 metres for the NEX 15mes. This is the slope recorded above similarly for Anse Cemmerette.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	3	18	14th May; 16th June; 29th June; 5th July; 19th June; 13th & 14th July
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 1 NESTING CENSUS FOR BEACH GRAND ANSE
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	1	3	31st July; 2nd August
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 2 NESTING CENSUS FOR BEACH CARTHUSE
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea	1	2	June 22; 26
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 3 NESTING CENSUS FOR BEACH AFRIC CREK
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata			
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 4 NESTING CENSUS FOR BEACH _____
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas	1	1	July 22
Dermochelys coriacea			
Eretmochelys imbricata	1	2	July 5, July 22
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 5 NESTING CENSUS FOR BEACH TROU LECRAND R
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas	?	2	June 22
Dermochelys coriacea			
Eretmochelys imbricata	?	3	June 22
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 6 NESTING CENSUS FOR BEACH ANSE MICOUD
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas	5	3	July 10
Dermochelys coriacea			
Eretmochelys imbricata	1	1	July 10
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 7 NESTING CENSUS FOR BEACH ANSE CHASTANET
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	1	2	October 10
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 8 NESTING CENSUS FOR BEACH TRUITIER
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas	?	?	July ?
Dermochelys coriacea			
Eretmochelys imbricata	?	?	July ?
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 9 NESTING CENSUS FOR BEACH ANSE DES SABLES
(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.

NOTE: This table indicates that the informant was unable to give definite dates of nesting or frequency but identified the species as nesting on that particular beach c.f. tables 4 - 10 to 4 - 13 inclusive.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta			
Chelonia mydas	?	?	May, June 82
Dermochelys coriacea			
Eretmochelys imbricata	?	?	May, June 82
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 10 NESTING CENSUS FOR BEACH ANSE COURTE[illegible]
(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.

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

TABLE 4 - 11 NESTING CENSUS FOR BEACH [illegible]
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta	?	?	June 82
Chelonia mydas			
Dermochelys coriacea	?	?	June 82
Eretmochelys imbricata	?	?	June 82
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 12 NESTING CENSUS FOR BEACH POND D'OR
(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.

SPECIES	NUMBER OF NESTS		DATES OF DATA COLLECTION
	Nests/Night (Average)	Nests/Season (Estimated)	
Caretta caretta	?	?	June 82
Chelonia mydas			
Dermochelys coriacea			
Eretmochelys imbricata	?	?	June 82
Lepidochelys kempi			
Lepidochelys olivacea			

TABLE 4 - 13 NESTING CENSUS FOR BEACH ANSE LAPINS
(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.

DATE	BEACHES SURVEYED	NUMBERS OF NESTING TRACKS						
		Cc	Cm	D	E	Lk	Lo	NO I. D.
82/5/14	Anse Commerette, Anse Lapins, Grand Anse			2				
82/5/16	Grand Anse			5				
82/5/19	Grand Anse			1				
82/6/22	Anse Cor, Anse Ricoud, Anse Trouvassee							
82/7/5	Grand Anse			2				
82/7/13	Grand Anse							
82/7/19	Anse de Sables							
82/7/22	Trou l'Oranger				1			

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.

Note: Aerial Surveys were not carried out all information obtained for nesting beaches was from ground observations and interviews.

82/5/14: Grand Anse: in addition to 2 tracks, 4 carcasses of leatherback were found.

82/6/16: Grand Anse: 3 new carcasses were found in addition to the 5 new sets of nesting tracks.

SPECIES \ YEAR	1982	1981	1980	1979	1978	1977
Caretta caretta	2					
Chelonia mydas	6					
Dermochelys coriacea	22					
Eretmochelys imbricata	11					
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.

Estimation for table 6 obtained by adding estimated numbers of nests per season per beach for all the beaches considered in tables 4 - 1 to 4 - 13 inclusive; and assuming that each nest represents one different female.

NAME OF AREA (or give coordinates)	APPROX. AREA (Km^2)	SPECIES FORAGING (Use abbreviations & approx. numbers)	NATURE OF EVIDENCE (Observation, fishery, incidental catch)
1. Anse Chastanet		Cm/30; E/10	Observation; incidental catch
2. Diamond		Cm/3	Observation
3. Maria Islands/V.P.		Cm/90; E/5	Observation; incidental catch
4. Rumnery		Cm/5	Fishery
5.			
6.			

TABLE 7. FORAGING AREAS INVENTORY

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

SPECIES \ MONTH	J	F	M	A	M	J	J	A	S	O	N	D	MONTHS OF GREATEST ACTIVITY
Caretta caretta													
Chelonia mydas						X			X				September
Dermochelys coriacea													
Eretmochelys imbricata						X			X				September
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8 - 1 TURTLE SPECIES PRESENT ON FORAGING AREAS. ANSE CHASTANET
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	J	F	M	A	M	J	J	A	S	O	N	D	MONTHS OF GREATEST ACTIVITY
Caretta caretta													
Chelonia mydas										X			?
Dermochelys coriacea													
Eretmochelys imbricata													
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8 - 2 TURTLE SPECIES PRESENT ON FORAGING AREAS. DIAMOND
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	J	F	M	A	M	J	J	A	S	O	N	D	MONTHS OF GREATEST ACTIVITY
Caretta caretta													
Chelonia mydas							X		X				?
Dermochelys coriacea													
Eretmochelys imbricata							X		X				?
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8 - 3 TURTLE SPECIES PRESENT ON FORAGING AREAS. MARIA ISLAND
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	J	F	M	A	M	J	J	A	S	O	N	D	MONTHS OF GREATEST ACTIVITY
Caretta caretta													
Chelonia mydas										X			?
Dermochelys coriacea													
Eretmochelys imbricata													
Lepidochelys kempi													
Lepidochelys olivacea													

TABLE 8 - 4 TURTLE SPECIES PRESENT ON FORAGING AREAS. REPORT
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.).

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.

Below are data on carcasses, tracks and live turtles observed.

Dermochelys Coriacea

Total Length	Carapace Length	Width	Weight	Width of Track	Sex
1.38 m	NR*	0.85m	NR	—	F
1.45 m	NR	0.80m	NR	—	F
—	—	—	—	1.5 m	F
—	1.48	N.G.	NR	—	F
—	1.30	0.80	NR	—	F
1.65 m	1.50	0.85	NR	—	F
—	—	—	—	1.7 m	F
—	—	—	—	1.5 m	F
1.70 m	1.4	0.85	NR	—	F
1.65 m	1.45	0.65	NR	—	F
—	—	—	NR	1.76	F

Chelonia Mydas

NR	0.43	NR	9.53	NR	NR
NR	0.36	NR	9.dL	NR	NR
NR	0.56	NR	15.20	NR	NR
NR	0.48	NR	11.34	NR	NR
NR	0.48	NR	11.34	NR	NR

*NR = not determined
— = unavailable for measurement

LIFE STAGE UNIT	SPECIES (abbrev.)	CAUSES*	EXTENT OF MORTALITY (% of unit)
Nests/eggs	Do,Cm,E,Cc	Dogs, Human intervention, pigs	70%
Hatchlings	C,Cm,E,Co	Unknown	?
Juveniles	Unknown	Unknown	
Adults (in water)	C,Co,Cm,E	Human intervention (fishing or incidental catch)	25 - 40 %
Nesting Females	Oc,Cm,E,Co	Human intervention	50%

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

NAME OF PORT OR SITE	SPECIES LANDED (Use abbrev)	FISHING GEAR USED	MONTHS OF LANDINGS	NUMBERS & WEIGHTS (Estimate
1. Castries	Cm	"Turtle net"	September	5
2. Canaries	Cm; E	Net	September	4; 1
3. Vieux Fort	Cm	Net	September November	4
4.				
5.				
6.				
7.				
8.				

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

INSTITUTION OR ORGANIZATION NAME AND ADDRESS	NO. OF ACTIVE MEMBERS	ACTIVITIES IN PROGRESS
Fisheries Management Unit Ministry of Agriculture, Lands Fisheries and Co-operatives, St. Lucia	10	WATS, Turtle Survey
St. Lucia Naturalists Society Castries, St. Lucia		Aid Fisheries Management Unit with WATS Survey

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

St. Lucia

TABLE 20. REGULATORY AUTHORITY
(Supplementary page)

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

1. Fish, Lobster and Turtle Protection Act No. 13 of 1971

NAME AND ADDRESS OF ORGANIZATION	BUDGET ALLOCATION TO TURTLES	NO. OF STAFF ASSIGNED TO TURTLES	COMMENTS ON LEVELS OF ENFORCEMENT
Fisheries Management Unit, Ministry of Agriculture, Lands Fisheries & Co-operatives, Castries, St. Lucia	Nil	1	Manpower not available for proper enforcement
Royal St. Lucia Police Force St. Lucia	Nil	Nil	No specific duties for enforcement of turtle related legislations

St. Lucia

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

PROJECT TITLE	DATES START	DATES END	NAME & ADDRESS OF INSTITUTION & CHIEF INVESTIGATOR
WATS Turtle Survey	May 82	Ongoin	Peter A. Murray, Fisheries Management Unit, Ministry of Agriculture, Lands, Fisheries and Co-operatives, St. Lucia

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