

# THE NATIONAL REPORT EL REPORTE NACIONAL

FOR THE COUNTRY OF  
POR EL PAIS DE

## BERMUDA

NATIONAL REPRESENTATIVE / REPRESENTANTE NACIONAL

## JAMES BURNETT-HERKES



Western Atlantic Turtle Symposium  
Simposio de Tortugas del Atlantico Occidental

17-22 July / Julio 1983  
San José, Costa Rica

Bermuda National Report, WATS I Vol 3, pages 49-54



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

**NATIONAL REPORT FOR THE COUNTRY OF**

**BERMUDA**

NATIONAL REPORT PRESENTED BY

**Dr. James Burnett-Herkes**  
The National Representative

Address:  
Department of Agriculture and Fisheries  
P.O. Box 834  
Hamilton, Bermuda

NATIONAL REPORT PREPARED BY

James Burnett-Herkes

DATE SUBMITTED: 15 May 1983

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

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



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:*

Burnett-Herkes, J.1984. National Report for Bermuda, pp.49-54. *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: BERMUDA

Length of Coastline*	183 Km**
Continental Shelf Area	871 Km***
Seaward Extent of Jurisdictions	
Territorial Sea	5.5 Km****
Extended Economic Zone	None
Fisheries Jurisdiction	366 Km*****
Other (Describe)	None
<p>* 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.  ** 100 nautical miles (approximately)  *** 260 square nautical miles  **** 3 nautical miles from baselines. (See chart)  ***** 200 nautical miles from baselines and territorial sea</p>	

Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	1.5	10.0	11.5
A. High Energy	1.5	6.5	8.0
B. Low Energy		3.5	3.5
2. Reef (exposed)			
3. Rocks	30.0	108.5	138.5
4. Cliffs	15.0	15.0	30.0
5. Vegetation (Total)	1.5		1.5
A. Vines			
B. Grasses			
C. Mangroves	1.5		1.5
D. Coconut Trees			
E. Other Trees or Shrubs			
F. Marshes			
6. Mouths of lagoons, rivers, canals			
7. Total Shoreline	48.0***	133.5	181.5***
<p>* Refer to Sea Turtle Manual (Aerial Survey)  ** Human development or use (See MANUAL)  *** <i>Editor's note (2009):</i> Totals corrected from original to reflect accuracy in summed values</p>			

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

Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	3	90.0
2. Mud	0.2	5.0
3. Rocks	0.75	3.0
4. Submerged Vegetation	0.6	90.0
5. Reefs (Total)	0.2	188.0
A. Fringing Reefs		17.0
B. Patch Reefs	0.2	70.0
6. Other: Coral & Rocks, vegetation mixed		101.0

**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.

Two beaches used for egg transplant experiments in undeveloped high energy areas (see "N" on chart) have powdery white sand (approximately 1mm grain size). Beaches slope to low dunes (1.5 – 2 meters above H.W.M). Vegetation consists mainly of seaside morning glory (*Ipomoea pes-caprae*) and West Indian crabgrass (*Eustachys petraea*). Artificial lights near one beach only. These extinguished during hatching approximately 6.5 km of beaches suitable for nesting.

**TABLE 7. FORAGING AREAS INVENTORY**

Name of Area (or give coordinates)	Approx. Area (Km <sup>2</sup> )	Species Foraging (use abbreviations & approx. numbers)	Nature of Evidence (observation, fishery, incidental catch)
1. Bermuda Islands	871	Cm, > 1,000	Capture/tag/release studies. Observations and reports. From fishermen and boatmen observations and reports.
2. Bermuda Islands	871	Cc, >100	From fishermen and boatmen observations and reports.
3. Bermuda Islands	871	E, >50	From fishermen and observations and reports.
4. Offshore Bermuda Islands	7,850	D, < 5	From fishermen; occasionally caught in nets, etc.
Species	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kempfi</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		

<b>TABLE 8. TURTLE SPECIES PRESENT ON FORAGING AREAS.</b>														
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		
<i>Caretta caretta</i>	H*, J	H, J	H, J	J	J	J	J	J	J	J	H, J	H, J	H, J	H - in sargassum J - most common June - October, present all year
<i>Chelonia mydas</i>	J	J	J	J	J	J	J	J	J	J	J	J	J	May-October
<i>Dermochelys coriacea</i>					A, J	A, J	A, J	A, J	A, J	A, J				Occasionally seen offshore, May-October
<i>Eretmochelys imbricata</i>	J	J	J	J	J	J	J	J	J	J	J	J	J	Stressed animals found in winter months
<i>Lepidochelys kempfi</i>														
<i>Lepidochelys olivacea</i>														

\* H = hatchlings, J = juveniles, A = adults

<b>TABLE 10. NATURAL MORTALITY</b>			
Life Stage Unit	Species (Abbrev.)	Causes*	Extent of Mortality (% of Unit)
Nests/eggs			
Hatchlings	Cc	Disease possibly, or water temperature too low	5
Juveniles	E Cc Cm	Disease possibly, or water temperature too low Disease possibly, or water temperature too low Disease possibly, or water temperature too low + boat propellers	< 5
Adults (in water)	D	Disease possibly, or floating pieces of net (cargo, fishing, etc.) hoops, etc.	less than 5
Nesting females			
	Species	Abbreviation	
	<i>Caretta caretta</i>	Cc	
	<i>Chelonia mydas</i>	Cm	
	<i>Dermochelys coriacea</i>	D	
	<i>Eretmochelys imbricata</i>	E	
	<i>Lepidochelys kempfi</i>	Lk	
	<i>Lepidochelys olivacea</i>	Lo	

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

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

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

Collection of such data has only just begun. Studies of diseases also just commenced and will be reported by years end.

<b>TABLE 17. TURTLE MARICULTURE OPERATIONS. 1981</b>								
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. Juvs.	Adult Female	Adult Male
<i>Caretta caretta</i>	42	5	5	emergence			1	1
<i>Chelonia mydas</i> (Devil's Hole) (imported)	105 3048 *	51 346	42 346	emergence emergence	9		2	1
<i>Dermochelys coriacea</i>								
<i>Eretmochelys imbricata</i>								
<i>Lepidochelys kempfi</i>								
<i>Lepidochelys olivacea</i>								

\* Eggs from Suriname; shipped to Bermuda via air freight on commercial flight.

**TABLE 17A. TURTLE MARICULTURE OPERATIONS (Supplementary page)**

Between 1967-1977, just over 17,000 green turtle (Cm) eggs were transplanted to Bermuda from Costa Rica. From these 10,000 hatchlings were released from incubation beaches (see chart "N") and 450 were retained for 2 years to headstart, tag and release.

It is anticipated that this practice might continue in the future. In 1976, turtles in a natural pond (sink hole) "Devil's Hole" tourist attraction laid three clutches totaling 252 eggs. Although most were fertile, none hatched because of shade over site and rains.

<b>TABLE 18. PUBLIC AND PRIVATE INSTITUTIONS CONCERNED WITH TURTLE CONSERVATION/MANAGEMENT/UTILIZATION</b>		
Institution or Organization Name and Address	No. of Active Members	Activities in Progress
Department of Agriculture and Fisheries P.O. Box 834, Hamilton, Bermuda <i>includes</i> Division of Fisheries, Bermuda Aquarium, Museum, Zoo, Conservation Division	6	Tagging, release wild caught turtles Egg transplant - population enhancement Captive breeding Disease studies

<b>TABLE 19. SANCTUARIES AND REFUGES</b>			
Name and Location	Area Km <sup>2</sup>	Reason(s)f Protection	Type and Effectiveness of Enforcement
Bermuda's EFZ extending 183 km from baseline	456,095	All marine turtles considered threatened / endangered in west Atlantic. Also attempting to re-establish breeding pops.	Fisheries Act / regulations. Wardens and marine police. Public and fishermen cooperate

<b>TABLE 20. REGULATORY AUTHORITY</b>			
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
Government Agriculture and Fisheries P.O. Box 834 Hamilton, Bermuda	US \$ 54,000	2-4	Enforcement of all fisheries regulations.
Bermuda Police Prospect Devonshire Bermuda (the Commissioner)	N / A	8	Enforcement of all fisheries regulations and other marine legislation (e.g., safety, boat licences; marine section of police)

**TABLE 20A. REGULATORY AUTHORITY (Supplementary page)**

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

Under Fisheries Act 1972, the "Fisheries (Protected Species) Order, 1978" prohibits the taking of any marine turtle. "Fisheries Regulations 1972" prohibit the taking or attempted taking of a nesting turtle (copies enclosed).

<b>TABLE 21. NATIONAL RESEARCH PROJECTS</b>			
List turtle research activities funded within your country.			
Project Title	Date		Name and Address of Institution & Chief Investigator
	Start	End	
Re-establishment of green turtle nesting rookery at Bermuda	1966	Cont'd.	Department of Agriculture and Fisheries P.O. Box 834, Hamilton Dr. B.D. Wingate
Studies of Populations of Bermuda Turtles	1968	Cont'd.	Department of Agriculture & Fisheries P.O. Box 834 Hamilton, Bermuda Dr. J. Burnett-Herkes
Diseases of Wild and Captive Marine Turtles in Bermuda	1982	Cont'd.	Department of Agriculture & Fisheries P.O. Box 834 Hamilton, Bermuda Mr. T. Rand



## REPORTS AND PUBLICATIONS

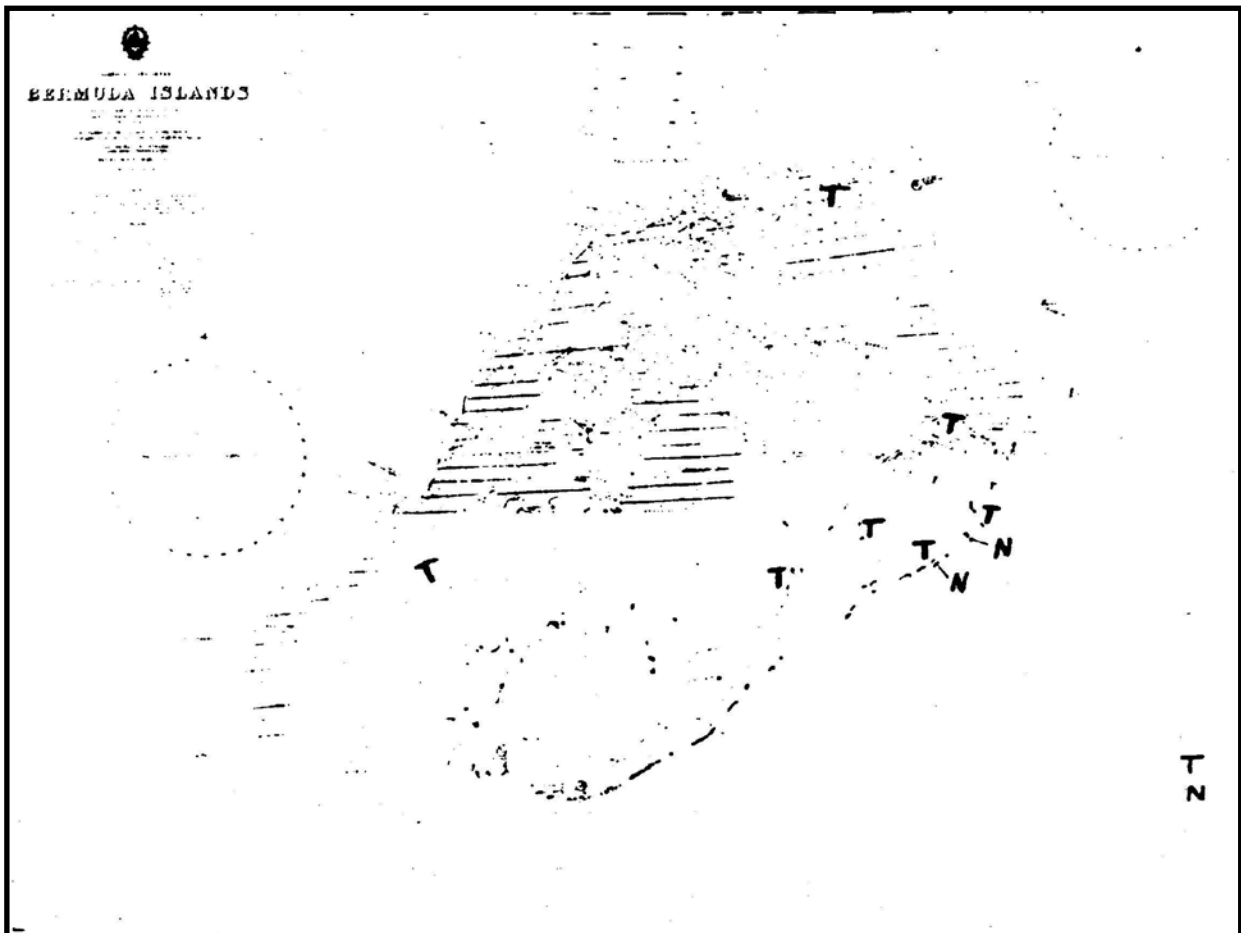
The following is a list of the major reports and publications concerned with national turtle resources (list author, date, title, and publisher).

Burnett-Herkes, J. 1974. Returns of green sea turtles (*C. mydas*) tagged at Bermuda. *Biological Conservation* 6(6): 307-308.

Frick, J. 1976. Orientation and behavior of hatchling green turtles (*C. mydas*) in the sea. *Animal Behaviour* 24(4): 849-857.

Ireland, L. C. 1979. Homing behavior of juvenile green turtles, *C. mydas*. In Amlaner, C.J., Jr. and D.W. Macdonald (eds.). 1980. *A Handbook on Biotelemetry and Radio Tracking*. Pergamon Press, New York.

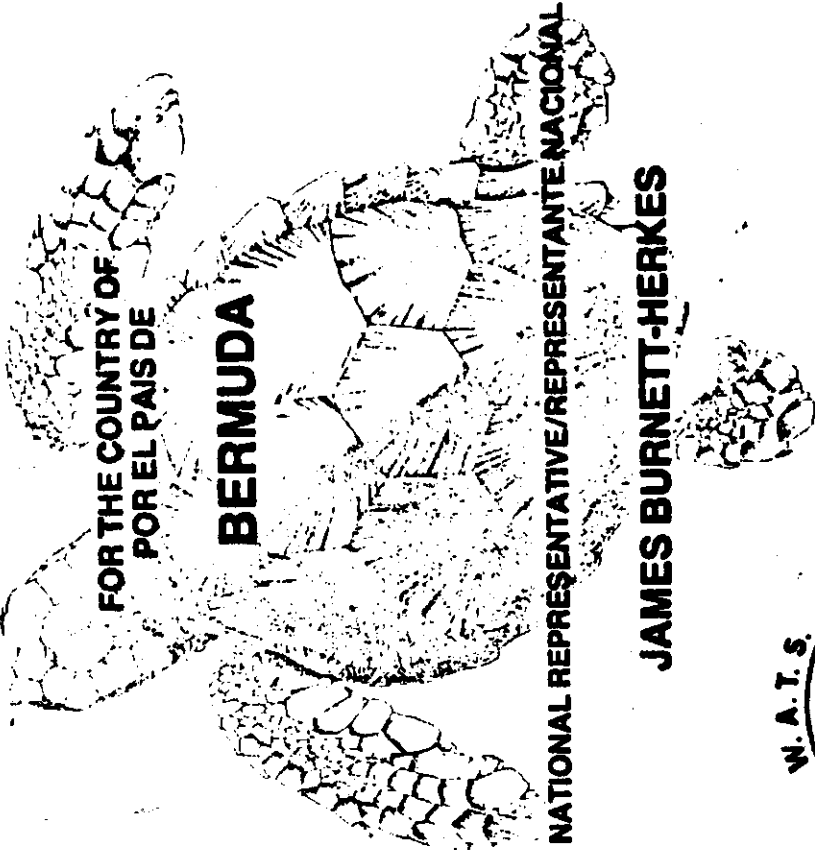
**Figure 1.** Bermuda – W.A.T.S. National Report Study Area.<sup>1</sup>



<sup>1</sup> *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.



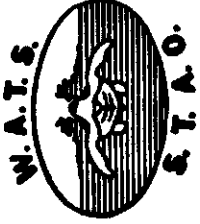
# THE NATIONAL REPORT EL REPORTE NACIONAL



**JAMES BURNETT-HERKES**

Western Atlantic Turtle Symposium  
Simposio de Tortugas del Atlantico Occidental

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WESTERN ATLANTIC TURTLE SYMPOSIUM  
San Jose, Costa Rica  
July 1983

NATIONAL REPORT FOR THE COUNTRY OF  
BERMUDA

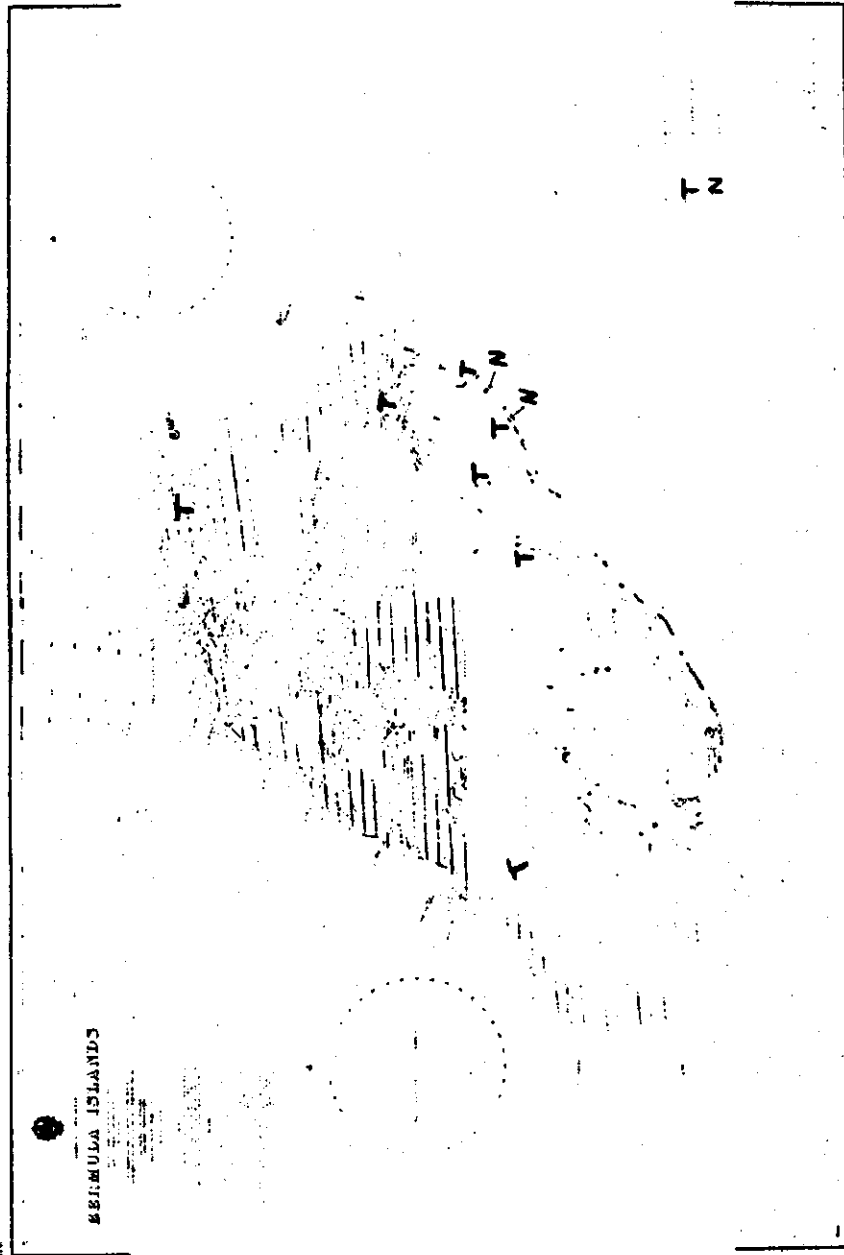
NATIONAL REPORT PREPARED BY  
Dr. James Burnett-Herkes  
The National Representative  
Address: Department of Agriculture - Fisheries

P.O. Box 234  
Hamilton Bermuda

NATIONAL REPORT PREPARED BY  
James Burnett-Herkes

DATE SUBMITTED: 15 MAY 1983

Please submit this NATIONAL REPORT no later than 3 December 1982  
to: IOC Assistant Secretary for IOCARIBE, 5 UNDP, Apartado 4540,  
San Jose, Costa Rica.



Country BERMUDA

Length of Coastline 115 Nautical miles approx. .... 193 km

Area of Continental Shelf Area 266 sq nautical miles .... 271 km<sup>2</sup>

Seaward Extent of Jurisdiction:

Territorial Sea 3 nautical miles from baselines .... 5.6 km

Extended Economic Zone ..... N/A

Fisheries Jurisdiction 200 nautical miles (1200 km) from baselines of Territorial Sea

Other (Describe) ALAS

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*		NO. OF SHORELINE	
		UNDEVELOPED	DEVELOPED**
		TOTAL	
1. Sand Beach (Total)		115	1040
A. High Energy/Short Strikelines = pocket beaches		115	65
B. Low Energy			35
2. Reef (exposed)			
3. Rocks		300	1885
4. Cliffs		150	150
5. Vegetation (Total)		15	300
A. Vines			15
B. Grasses			
C. Mangroves		15	15
D. Coconut Trees			
E. Other Trees or Shrubs			
F. Marshes			
6. Mouths of lagoons, rivers, canals			
7. Total Shoreline		495	1931

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE \* Refer to SEA TURTLE MANUAL (Marital Survey)

HABITAT BOTTOM TYPES	M <sup>2</sup> OF HABITAT	
	INSIDE 75m (SHOREWARD)	OUTSIDE 25m (SEAWARD)
1. Sand	3	90.0
2. Mud	0.2	5.0
3. Rocks	0.75	3.0
4. Submerged Vegetation	0.6	40.0
5. Reefs (Total)	0.2	182.0
A. Fringing Reefs		17.0
B. Patch Reefs	0.2	78.0
6. Other - DEEPWATER REEFS		101.0

TABLE 2A. MARINE HABITAT INVENTORY BY BOTTOM TYPES

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, beach vegetation, artificial lighting, etc.

2 BEACHS USED FOR EGG TEMPERATURE EXPERIMENTS IN UNDEVELOPED HIGH ENERGY AREAS (500 M' ON CORAL) THIS BEACH WAS WASH SAND (APPROX 1mm GRAIN SIZE). BEACH SLOPE TO LOW DUNES (1.5-2m ABOVE M L M) VEGETATION CONSISTS MAINLY OF SENSITIVE MEDITERRANEAN GRASS (Iponcha perenne) AND WEST INDIAN COBWEBBES (Eustachys pectinatus).

ARTIFICIAL LIGHTS AROUND THE BEACH ONLY. THESE STRINGS WERE BURNING THROUGH APPROX 5-6 KM OF BEACHS BEHIND ARE NESTING

NAME OF AREA (or give coordinates)	SPERM. AREA (sq. mi.)	SPECIES FRANKING (use abbreviations approx. numbers)	NATURE OF EVIDENCE (Observation, fishery, incidental catch)
1. Bermuda Islands	871	CC > 1000	CATCHES/THE FOLLOWING SPECIES OBSERVATIONS AND REPORTS FROM FISHERMEN + BOATMEN OBSERVATIONS AND REPORTS FROM FISHERMEN AND BOATMEN.
2. "	871	CC > 100	OBSERVATIONS AND REPORTS FROM FISHERMEN AND BOATMEN.
3. OFFSHORE FROM Bermuda Islands	7850	EI 750 DC 25	OBSERVATIONS AND REPORTS FROM FISHERMEN - OCCASIONALLY CAUGHT IN NETS ETC.
4.			
5.			

TABLE 7. FRANKING AREAS INVENTORY

Species Abbreviations:  
 CC Carolla carolla  
 Cm Chelonia mydas  
 D Dermochelys coriacea  
 E Erismochelys imbricata  
 EI Lepidochelys kempi  
 L Leptochelys olivacea  
 Lo

LIFE STAGE UNIT	SPECIES (abbrev.)	CAPTURES*	EXTENT OF MORTALITY (% of mile)
Eggs			5%
Hatchlings	CC	Dispersed - possibly on surface Tenth 700 km	
Juveniles	EI CC Cm.	" " "	25%
Adults (in water)	DC	" or floating of pieces of net (cargo, fishing, etc) hoops, etc.	
Nesting females			

TABLE 10. NATURAL MORTALITY

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

Species Abbreviations:  
 CC Carolla carolla  
 Cm Chelonia mydas  
 DC Dermochelys coriacea  
 EI Erismochelys imbricata  
 L Leptochelys olivacea  
 Lo

SPECIES	J	F	M	A	M	A	M	A	M	A	M	D	H	MONTHS OF GREATEST ACTIVITY
<u>Carolla carolla</u>	H	S	S	S	S	S	S	S	S	S	S	S	H	11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31
<u>Chelonia mydas</u>	S	S	S	S	S	S	S	S	S	S	S	S	J	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31
<u>Dermochelys coriacea</u>	S	S	S	S	S	S	S	S	S	S	S	S	J	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31
<u>Erismochelys imbricata</u>	S	S	S	S	S	S	S	S	S	S	S	S	J	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31
<u>Lepidochelys kempi</u>	S	S	S	S	S	S	S	S	S	S	S	S	J	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31
<u>Lepidochelys olivacea</u>	S	S	S	S	S	S	S	S	S	S	S	S	J	1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31

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

S = JUVENILES  
 A = ADULTS  
 H = HATCHLINGS

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, means of egg nets, hours of nesting,  
 hours and conditions of hatching, etc.

Collection of such data has only just begun.  
 Studies of diseases also just commenced  
 and will be reported on by year's end.

SPECIES	HATCHERY OPERATIONS					HOLDING LIVE TURTLES	
	NO. FOR COLLECT	NO. EGGS HATCHED	NO. RELEASED	AGE AT RELEASE	NO. PLANTED	NO. ADULT TURTLES	ADULT TURTLES
<i>Sacalia carolinensis</i>	42	5	5	2 years	-	1	1
<i>Dermochelys coriacea</i>	105	51	42	2 years	1	2	1
<i>Chelonia mydas</i>	348*	346	346	2 years	-	-	-
<i>Chelonia mydas</i>							
<i>Chelonia mydas</i>							
<i>Chelonia mydas</i>							
<i>Chelonia mydas</i>							

\* 4000 eggs left, 300000 shipped to Bermuda via air freight on commercial flight.

TABLE 17 - TURTLE HATCHERY OPERATIONS  
 This table quantifies activities concerned with turtle culture for either conservation, population enhancement experiments, or commercial use. Activities to be included are: "hatchling", rearing, incubation and release, etc. Prepare separate table for each year of available data. *Sites over?*

NOTE TABLE 17  
 BETWEEN 1967-1977 JUST OVER 17,000 GEORGE TURTLES (CM) EGGS WERE TRANSPORTED TO BERMUDA FROM COSTA RICA. FROM THESE 10,000 HATCHLINGS WERE REARED FROM INCUBATION BOXES (SIB LAMP N) AND 450 WERE RETURNED FOR 2 YEARS TO MONTICANT, THE AND RETURNED. IT IS ANTICIPATED THAT THIS PROJECT MIGHT CONTINUE IN THE FUTURE

IN 1976 TURTLES IN A NATURAL POND (SINK HOLE) WOULD WERE TO COLLECT ATTRACTION LAMP 3 CLUSTERS TOTALING 252 EGGS. ALTHOUGH MOST WERE BEING MORE HATCHED BECAUSE OF SINK HOLE OVER SITE AND RAINS

INSTITUTION OR ORGANIZATION NAME AND ADDRESS	NO. OF ACTIVE MEMBERS	ACTIVITIES IN PROGRESS
Department of Agriculture and Fisheries P.O. Box 234 Hamilton Bermuda (Includes: Bermuda Fisheries Bermuda Aquaculture, Marine Conservation Division)	6	Tapping/Release wild-caught turtles Off-island - population enhancement Captive breeding Disease studies

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

NAME AND LOCATION	AREA OF	REASON (S) FOR PROTECTION	TYPE AND EFFECTIVENESS OF ENFORCEMENT
BERMUDA'S B.F.Z. BERMUDA 193 km FROM BERMUDA	USGPO'S	ALL BERMUDA TURTLES CONSIDERED THREATENED/ENDANGERED IN W/ST. ALONG WITH ATTRACTION TO BERMUDA BERMUDA POPS.	FEDERAL ACT / REGULATIONS / WORKING BY MARINE POLICE / PUBLIC & MARINE CONSERVATION

TABLE 19. SANCTUARIES AND REFUGES

NAME AND ADDRESS OF ORGANIZATION	BUDGET ALLOCATION TO TURTLES	NO. OF STAFF ASSIGNED TO TURTLES	COMMENTS ON LEVELS OF ENGAGEMENT
Dr. B. B. Dingle P.O. Box 34 Hamilton Bermuda	US \$ 50,000	2-4	ENTIREMENT OF ALL FISHING REGULATIONS REGULATIONS OF ALL FISHING REGULATIONS AND OTHER MARINE LEGISLATION (49 SEVERAL BERT LINDSAY MARINE SECTION BE DECIDED)
Bermuda Police Department Bermuda (The Commissioner)	N/A	8	

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

PROJECT TITLE	DATES		NAME & ADDRESS OF INSTITUTION & CHIEF INVESTIGATOR
	START	END	
Re-establishment of green turtle nesting trawlers at Bermuda	1966	(cont)	Dr. B. B. Dingle P.O. Box 34 Hamilton Bermuda
Studies of Populations of Bermuda Turtles	1968	(cont)	Dr. J. R. B. Dingle Department of Agricultural Fisheries P.O. Box 34 Hamilton Bermuda
DISEASES OF WILD AND CAPTIVE MARINE TURTLES IN Bermuda	1982	(cont)	Dr. J. R. B. Dingle Department of Agricultural Fisheries P.O. Box 34 Hamilton Bermuda

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

TABLE 20. REGULATORY ACTIVITY  
(Supplementary map)

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

UNDER FISHERIES ACT (1972), THE FISHERIES (PROTECTED SPECIES) ORDINANCE, 1973 PROHIBITS THE TAKING OF ANY MARINE TURTLES

\* FISHERIES REGULATIONS 1972 " PROHIBIT THE TAKING OF ANY MARINE TURTLES

(Copies enclosed)

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. STATUS OF BERMUDA TURTLES. BIONOMICS. 6(4): 317-328
2. FACTS, 1976. DEMOGRAPHY AND ZOOLOGICAL BEHAVIOR OF MARINE TURTLES. (2 vols) IN THE SEA. ANIM. BEHAV.
3. STATUS OF BERMUDA TURTLES. A. C. 1979. MARINE BEHAVIOR OF BERMUDA TURTLES. TURTLES (2 vols). BY A HANDBOOK ON ZOOLOGICAL AND RARE TURTLES. BY R. HANAUER, C. J. & B. W. MACKAY. PETERSON PUBLICATIONS, DENVER, CO.