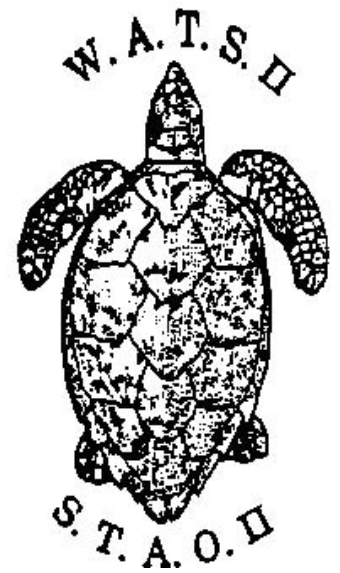


WATS II REPORT / DATA SET



National Report for Bermuda

James Burnett-Herkes, Ph.D.

11 October 1987

WATS2 051



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 sizes and trends, 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.

Despite the potential value of this information to agencies responsible for conducting stock assessments, monitoring recovery trends, safeguarding critical habitat, and evaluating conservation successes in the 21st century, the National Reports submitted to WATS II were not included in the published proceedings and, until now, have existed only in the private libraries of a handful of agencies and symposium participants. To help ensure the legacy of these symposia, we have digitized the entire proceedings – including National Reports, plenary presentations and panels, species synopses, and annotated bibliographies from 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 can be cited (with the number of pages based on the layout of the original document) as:

Burnett-Herkes, J. 1987. National Report to WATS II for Bermuda. Prepared for the Second Western Atlantic Turtle Symposium (WATS II), 12-16 October 1987, Mayagüez, Puerto Rico. Doc. 051. 13 pages.

Karen L. Eckert
WIDECAST Executive Director
June 2009

**WESTERN ATLANTIC TURTLE SYMPOSIUM II 1987
COUNTRY REPORT FOR BERMUDA**

1. STATUS OF SEA TURTLES IN BERMUDA

(a) Nesting

We continue to have only circumstantial evidence of nesting activity of marine turtles at Bermuda. For example in 1983 a hawksbill turtle was found washed up on a beach among mats of *Sargassum*. The turtle still had a well developed egg tooth and a straight line carapace length of 5.3 cm. In July 1987 the shell of a turtle egg (probably hawksbill) was found on the shoreline adjacent to Wreck Bay beach at the western end of the island no other evidence of actual nesting could be found.

(b) Nesting beaches

Bermuda has 10 km of beaches that would be suitable for nesting marine turtles. The beaches are heavily used during daylight hours but only occasionally used at night. Periodic press releases are made reminding the public that turtles are protected.

(c) Exploitation

Marine turtles have all been protected under a Fisheries (Protected Species) Order since 1973 and all exploitation has ceased (except for occasional poaching that is alleged to take place) since this time.

(d) Mortality

Mortality of marine turtles in inshore areas has resulted from animals being run down by vessels particularly fast moving outboards at night. We are only able to document 2 to 3 cases annually but feel actual numbers are far greater.

Turtles are frequently picked up at sea in various forms of distress. Commonly they are buoyant and are unable to dive and at other times they are moribund and simply found floating on the surface. At such times they are vulnerable to shark (and other fish) attack. The cause of this type of distress is unknown and most specimens respond to treatment including some forced feeding at the Government Aquarium, Museum and Zoo.

(e) Foraging areas

Bermuda has approximately 260 square nautical miles (870 square km) of shelf area. Some 200 square nautical miles (670 square km) of this area is shallow enough and contains habitat to support populations of marine turtles (*Chelonia mydas*, *Caretta caretta* and *Eretmochelys imbricata*). The most common species is *C. mydas* that feeds on the seagrasses *Thalassia* and *Syringodium*. Recruitment would appear to be from itinerant animals of the three species; however, tagging studies indicate that *C. mydas* form local resident populations. Individuals remain in discrete feeding areas until they mature and, presumably, leave to reproduce in the Caribbean.

(f) Sea Turtle Research and Surveys

- i. Tag/release of wild populations of green turtles *Chelonia mydas* has continued since 1968 and more than 400 have been tagged. Of these, 73 have been recaptured at least once. Nine turtles have been recaptured twice with intervals of more than 300 days

- between recaptures. One turtle has been recaptured on three occasions with intervals of 734, 719 and 345 days between successive captures. Growth curves are being estimated from the data. These turtles have shown very little movement from place of original capture and location of subsequent recapture(s). The furthest distance traveled from site of original capture was 4 km.
- ii. Tag/Release of other turtles has also been carried out since 1968. An assortment of Green, Hawksbill and Loggerhead turtles have been tagged and released from the Government Aquarium and private fishponds. Some of these turtles were kept in captivity for more than 20 years, others were sick or injured animals brought to the Aquarium for rehabilitation.
 - iii. Records of the occurrence of immature, sick, injured and dead marine turtles is kept by Aquarist, Jennifer Gray at the Bermuda Aquarium Natural History Museum and Zoo (BAMZ). Sick and injured turtles are routinely treated with the help of a veterinarian and are eventually tagged and released or a post-mortem is carried out on them.
 - iv. A Survey of sea grass habitats is currently being carried out by the Division of Fisheries of the Department of Agriculture and Fisheries by Catherine Nesbit. Dominant sea grasses are *Thalassia* and *Syringodium* and green turtles graze both species. Sea grasses are also critical habitats for juvenile fish and spiny lobster.

(g) List of persons involved in sea turtle records:

Dr. James Burnett-Herkes
Assistant Director (Fisheries)
Department of Agriculture and Fisheries
P.O. Box HM834
Hamilton HMCX
Bermuda

Dr. H. Clay Frick
Castle Point
Tucker's Town HS02
Bermuda

Ms. Jennifer Gray
Bermuda Aquarium, Museum and Zoo
P.O. Box FL145
Flatts FLBX
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Ms. Catherine Nesbit
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Department of Agriculture and Fisheries
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Hamilton HMCX
Bermuda

Dr. David Wingate
Conservation Officer
Department of Agriculture and Fisheries
P.O. Box HM834
Hamilton HMCX
Bermuda.

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- (d) Penalties for offences against the Fisheries Act, Fisheries Regulations and Fisheries Orders are maximum fines of \$5,000 and six months imprisonment or both fine and imprisonment. Additionally, vessels, gear and equipment used in taking protected species are liable to forfeiture.

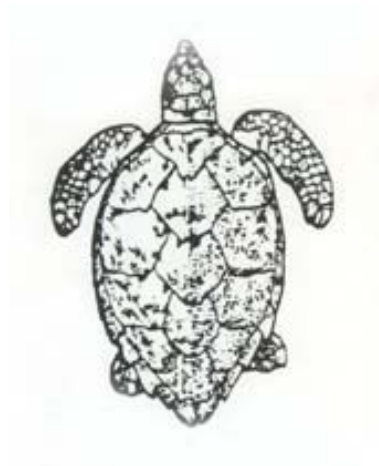
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*James Burnett-Herkes, Ph.D.
Assistant Director (Fisheries)
Dept. Agriculture & Fisheries
P.O. Box HM834
Hamilton HMCX
Bermuda*

**SECOND WESTERN ATLANTIC
TURTLE SYMPOSIUM**

W.A.T.S. II



S.T.A.O. II

**WATS II
SEA TURTLE SURVEY DATA FORMS
BERMUDA**



Mail to:

Dr. Robert R. Lankford
Executive Secretary, WATS II

Department of Marine Sciences
University of Puerto Rico
Mayagüez, Puerto Rico 00708



SEA TURTLE CONSERVATION

IN 1620, an "Act Against the Killings of our Young Tortoises" was passed by Bermuda's first Parliament. As this may well be the World's first conservation legislation, Bermuda has chosen to feature its most common sea turtle, the Green Turtle, on the second coin of its Five Year Commemorative Series.

Bermuda's coin celebrates the 25th Anniversary of the World Wildlife Fund, presided over by H.R.H. Prince Philip, the Duke of Edinburgh. In fact, a portion of the proceeds from the sale of these coins will go toward funding conservation programmes here at the Aquarium as well as overseas.

Silver Proof		\$35.00
<i>(Minting Limit 25,000)</i>		
Silver Uncirculated		\$20.00
<i>(Minting Limit 10,000)</i>		
Cupro-nickel	Packet	\$4.75
<i>(Unlimited)</i>	Single	\$3.00

GREEN TURTLE

Chelonia mydas



Green Turtles are cold-blooded marine reptiles, perfectly adapted for life in the warm seas they inhabit. They are able to swim for long periods underwater and grow to a shell length of approximately 1.2 metres.

Although they spend most of their lives in the sea, they return to shore to lay their eggs. The females will lay up to 100 or more eggs which they bury in holes on the sandy beaches. The eggs take about two months to hatch, when the baby turtles dig themselves out of their sandy nests and rush, instinctively, into the sea. It is a precarious start to life; the tiny hatchlings must reach the water as quickly as possible to avoid being eaten by birds or crabs.

Green Turtles are unique among marine turtle species as they are mainly vegetarian, feeding mostly on sea grasses, seaweeds and other forms of algae rather than fish or shellfish.



BERMUDA

*Certificate
of
Authenticity*

BERMUDA

This coin is issued by the authority of the Bermuda Monetary Authority. It is one of a series of legal tender proof coins celebrating the 25th Anniversary of World Wildlife Fund.

SPECIFICATIONS:

DENOMINATION:	\$1 (ONE DOLLAR)
FINENESS:	925 SILVER
WEIGHT:	28.28 GRMS
DIAMETER:	38.61 MM
QUALITY:	PROOF
EDITION LIMIT:	25,000
MINT:	BRITISH ROYAL MINT

I hereby attest that this coin has been minted to the specifications given above.

F. Cornell
Director
WWF 25th Anniversary Coin Collection

BERMUDA

The obverse design features the portrait of H.M. Queen Elizabeth II, sculpted by Raphael Maklouf, and the inscription 'Bermuda, Elizabeth II'.

The reverse design depicts the Green Turtle with the inscription '1986' and the denomination 'One Dollar'.

Bermuda consists of a collection of some 300 islands situated 570 miles (917 kilometres) east southeast of North Carolina, U.S.A. The combined land mass of these islands approximate 21 square miles (54 square kilometres). Bermuda can probably claim the oldest conservation legislation in the world. In 1620 the Bermuda House of Assembly passed a conservation act to protect Green Turtles on the islands, an act which stands today, 366 years later.

Population: 56,700

Capital: Hamilton

WATS II SEA TURTLE SURVEY DATA FORM

TABLE I. NESTING BEACH SURVEY:

COUNTRY: Bermuda STATE: NAME OF BEACH: No nesting recorded
NAME OF OBSERVER: J. Burnett Herkes DATE: TIME- START/STOP:

DISTANCE SURVEYED:

Nest Number

1. Time
2. Species *
3. Tag Number:
N = New 0 = Old
4. Carapace Length: (S/C)
Units cm or inches
5. Number of Eggs
6. Emergence Date
7. Number of Hatchlings
8. Erosion Danger? (Y/N)
9. Nest Protected? (Y/N)
10. Nest Relocated to
another beach site (Y/N)
11. Number of Eggs to
Hatchery? (Y/N)
12. Number of Eggs
Harvested
13. Number of Eggs
Depredated
14. Number of Head-start
Eggs
15. Females Harvested? (Y/N)

* Cc=*Caretta caretta*; Cm=*Chelonia mydas*; Dc=*Dermochelys coriacea*; Ei=*Eretmochelys imbricata*;
Lk=*Lepidochelys kemp*i; Lo=*Lepidochelys olivacea*; Uk=Unknown

WATS II SEA TURTLE DATA FORMS

TABLE II. AERIAL AND GROUND SURVEY SUMMARY DATA FORM

COUNTRY: Bermuda STATE: BEACH/ZONE : DISTANCE SURVEYED:

DATE: OBSERVER: Jim Burnett-Herkes Circle one: AERIAL OR GROUND

Species *	Cc	Cm	Dc	Ei	Lk	Lo	Uk
Total No. of Fresh Nests							
Total No. of Old Nests				1			
Total No. of Fresh False Crawls							
No. of Nests Disturbed							

* Cc=*Caretta caretta*; Cm=*Chelonia mydas*; Dc=*Dermochelys coriacea*; Ei=*Eretmochelys imbricata*; Lk=*Lepidochelys kemp*i; Lo=*Lepidochelys olivacea*; Uk=Unknown

Please provide below a brief description of how the survey or observation was completed. Particularly indicate interval between survey days and why this interval was selected and if survey dates were timed to occur the day/night after high (spring tide).

The shell of an egg believed to be from Ei was found on the shore adjacent to Wreck Beach at western end of island

WATS II SEA TURTLE SURVEY DATA FORM

TABLE III. NESTING BEACH INVENTORY

List Beaches in geographic sequence. Provide additional information on an attached page. Please list each species that occurs on beach on a separate line even if months of occurrence are the same.

COUNTRY: Bermuda STATE: RECORDER: James Burnett Herkes

Name of Beach	Length (Km)	Species* Nesting	Months Nesting	Peak	Months Recorded Nesting
Nesting has not been documented on any beach during the past 80 + years					

* Cc=*Caretta caretta*; Cm=*Chelonia mydas*; Dc=*Dermochelys coriacea*; Ei=*Eretmochelys imbricata*; Lk=*Lepidochelys kemp*i; Lo=*Lepidochelys olivacea*; Uk=Unknown

WATS II SEA TURTLE DATA FORM

TABLE IV. MORTALITY

COUNTRY: Bermuda STATE: YEAR 1983/1987 OBSERVER: J. Burnett-Herkes, J. Gray

Date	Species *	Sex	Length (cm)	Weight	# Eggs	Locality	Cause
16 Sept. 1983	Ei	Uk	5.6	24.2 gr	---	On beach, Castle Harbour	Stranded in seaweed; cause unknown
21 Nov. 1984 **	Cm	Uk	34.3	4.1 kg	---	Spanish Point Bay	Found weak, bloated, paralyzed. Died 1 week after being found
26 Nov. 1984	Ei	Uk	55.8	14.5 kg	---	On beach; Ferry Reach (Grotto Bay)	Washed on beach barely alive; cause unknown
10 July 1985 **	Cm	Uk	28.2	?	---	Elbow Beach, south shore	Partially decomposed; hit by vessel?
21 Nov. 1985	Ei	Uk	19.9	750 gr	---	Found drifting offshore	Gut blocked with polyrope, Styrofoam and tar
25 Dec. 1985	Ei	Uk	24.5	2.2 kg	---	Found drifting dead, Shelby Bay	Advanced condition of decomposition; hit by vessel?
08 Feb. 1987	Cc	Uk	7.50	56 gr	---	Found in water at Boat Slip, Ireland Island	Cause unknown; probably water temperature

Comments:

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** *Editor's note (2009)*: The information for these two sites was placed after the 08 February 1987 entry in the original National Report. Editor placed this information in ascending chronological order.

WATS II SEA TURTLE SURVEY DATA FORM

TABLE V. HEAD-START PROGRAM SUMMARY OF RELEASES

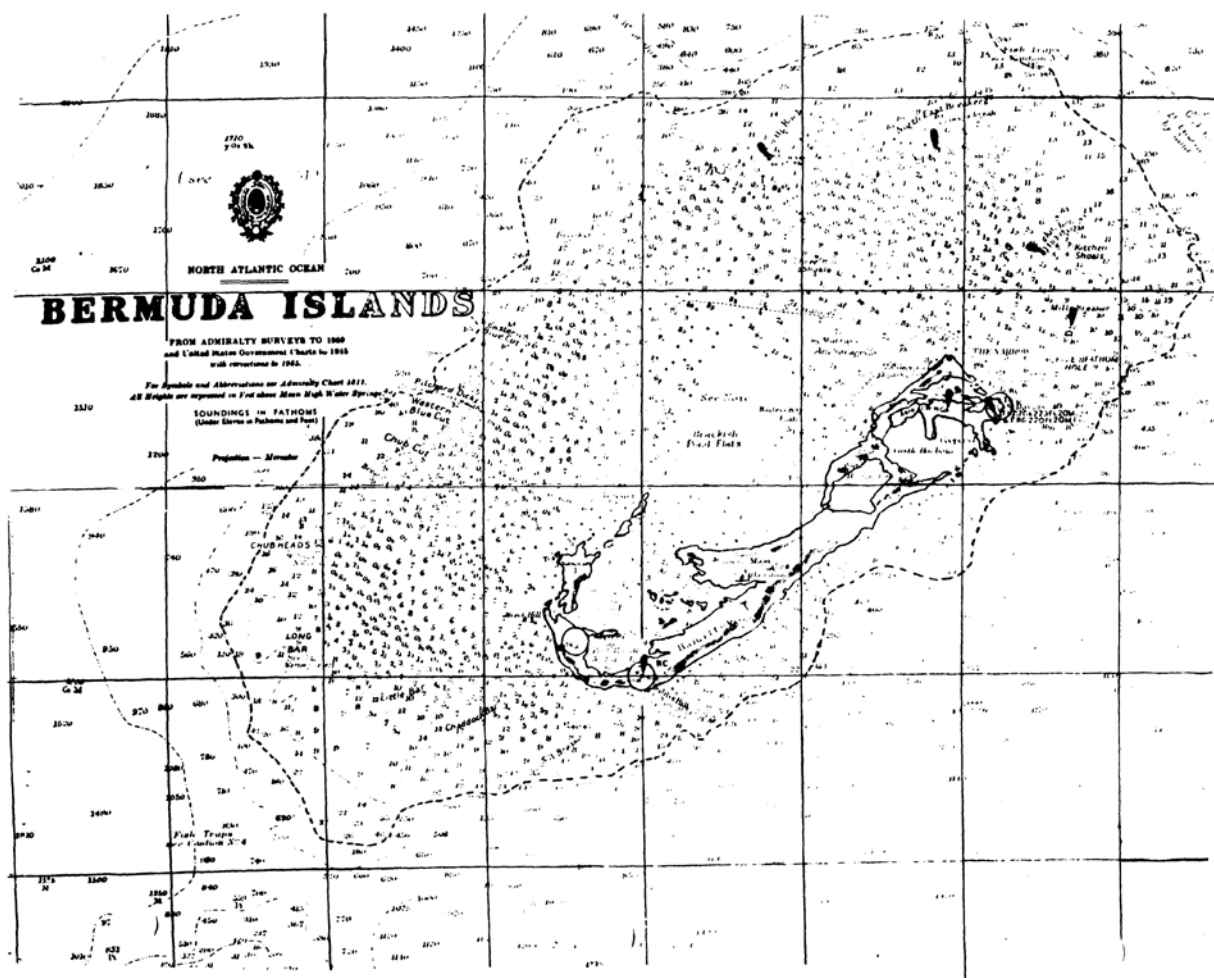
COUNTRY: Bermuda STATE: YEAR 1983/1987 OBSERVER: J. Burnett-Herkes

SOURCE OF EGGS: NIL

Date	Species *	Number	Age	Tag Sequence Numbers	Time Released	Locality
------	-----------	--------	-----	----------------------	---------------	----------

Comments:

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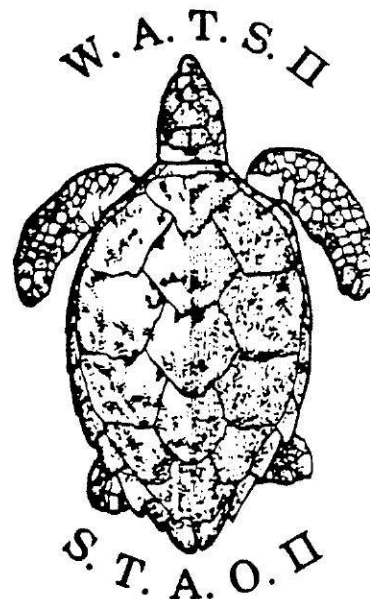
Editor's note (2009): Maps and figures are reprinted exactly as they appear in the original document; we regret the poor quality exhibited in some cases.

WATS II REPORT/DATA SET

National Report for Bermuda

James Burnett-Herkes, Ph. D.

11 October 1987



WATS2 051

51
WESTERN ATLANTIC TURTLE SYMPOSIUM II 1987

COUNTRY REPORT FOR BERMUDA

1. STATUS OF SEA TURTLES IN BERMUDA

(a) Nesting

We continue to have only circumstantial evidence of nesting activity of marine turtles at Bermuda. For example in 1983 a hawksbill turtle was found washed up on a beach among mats of Sargassum. The turtle still had a well developed egg tooth and a straight line carapace length of 5.3 cm. In July, 1987 the shell of a turtle egg (probably hawksbill) was found on the shoreline adjacent to Wreck Bay beach at the western end of the island no other evidence of actual nesting could be found.

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Marine turtles have all been protected under a Fisheries (Protected Species) Order since 1973 and all exploitation has ceased (except for occasional poaching which is alleged to take place) since this time.

(d) Mortality of marine turtles in inshore areas has resulted from animals being run down by vessels particularly fast moving outboards at night. We are only able to document 2 to 3 cases annually but feel actual numbers are far greater.

Turtles are frequently picked up at sea in various forms of distress. Commonly they are bouyant and are unable to dive and at other times they are moribund and simply found floating on the surface. At such times they are vulnerable to shark (and other fish) attack. The cause of this type of distress is unknown and most specimens respond to treatment including some forced feeding at the Government Aquarium, Museum and Zoo.

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Bermuda has a total of approximately 260 square nautical miles (870 square km) of shelf area. Some 200 square nautical miles (670 square km) of this

Received
11 Oct 1987
J. H. H. H. H.

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(f) Sea Turtle Research and Surveys

i. Tag/release of wild populations of green turtles Chelonia mydas has continued since 1968 and more than 400 have been tagged. Of these, 73 have been recaptured at least once. Nine turtles have been recaptured twice with intervals of more than 300 days between recaptures. One turtle has been recaptured on three occasions with intervals of 734, 719 and 345 days between successive captures. Growth curves are being estimated from the data. These turtles have shown very little movement from place of original capture and location of subsequent recapture(s). The furthest distance travelled from site of original capture was 4 km.

ii. Tag/Release of other turtles have also been carried out since 1968. An assortment of Green, Hawksbill and Loggerhead turtles have been tagged and released from the Government Aquarium and private fish ponds. Some of these turtles were kept in captivity for more than 20 years, others were sick or injured animals brought to the Aquarium for rehabilitation.

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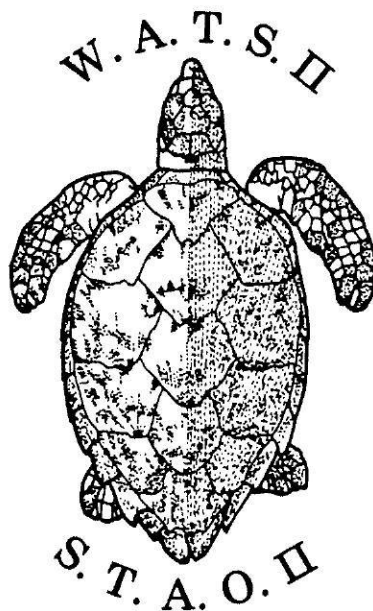
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James Burnett-Herkes, Ph.D.
Assistant Director (Fisheries)
Department of Agriculture & Fisheries
P.O. Box HM834
Hamilton HMCX
Bermuda.

SECOND WESTERN ATLANTIC
TURTLE SYMPOSIUM



WATS II
SEA TURTLE SURVEY DATA FORMS

BERMUDA



Mail to:

Dr. Robert R. Lankford
Executive Secretary WATS II
Department of Marine Sciences
University of Puerto Rico
Mayagüez, Puerto Rico 00708

GREEN TURTLE

Chelonia mydas



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BERMUDA

*Certificate
of
Authenticity*

BERMUDA

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WEIGHT:	28.28 GRMS.
DIAMETER:	38.61 MM
QUALITY:	PROOF
EDITION LIMIT:	25,000
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F. Cornell
Director

WWF 25th Anniversary Coin Collection

BERMUDA

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Capital: Hamilton



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Silver Uncirculated		\$20.00
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Cupro-nickel	Packet	\$4.75
(Unlimited)	Single	\$3.00

WATS II SEA TURTLE SURVEY DATA FORM

Page 3

TABLE I. NESTING BEACH SURVEY:

COUNTRY BERMUDA STATE — NAME OF BEACH NO NESTING RECORDED

NAME OF OBSERVER J. BURNETT HARRIS DATE — TIME START/STOP — DISTANCE SURVEYED —

Nest Number							
1. Time							
2. Species*							
3. Tag Number N = New O = Old							
4. Carapace Length (S/C) Units cm or inches							
5. Number of Eggs							
Emergence Date							
7. Number of Hatchlings							
8. Erosion Danger?(Y/N)							
9. Nest Protected?(Y/N)							
10. Nest Relocated to another beach site (Y/N)							
11. Number of Eggs to Hatchery? (Y/N)							
12. Number of Eggs Harvested							
13. Number of Eggs Depredated							
14. Number of Head-start Eggs							
15. Females Harvested?(Y/N)							

*Cc = *Caretta caretta*; Cm = *Chelonia mydas*; Dc = *Dermochelys coriacea*; Ei = *Eretmochelys imbricata*; Lk = *Lepidochelys kemp*; Lo = *Lepidochelys olivacea*; UK = Unknown

WATS II SEA TURTLE DATA FORMS

TABLE II. AERIAL AND GROUND SURVEY SUMMARY DATA FORM

COUNTRY BERMUDA STATE — BEACH/ZONE — DISTANCE SURVEYED —
 DATE: — OBSERVER: J. BURNETT HERGENS Circle one: AERIAL OR GROUND

Species ^a	Cc	Cm	Dc	Ei	Lk	Lo	Uk
Total no. of fresh nests							
Total no. of old nests				1.			
Total no. of fresh false crawls							
No. of nests disturbed							

Please provide below a brief description of how the survey or observation was completed. Particularly indicate interval between survey days and why this interval was selected and if survey dates were timed to occur the day/night after high (spring tide): THE SHELL OF AN EGG BELIEVED TO BE FROM Ei.
WAS FOUND ON THE SHORE ADJACENT TO WRECK BAY BEACH AT WESTERN END OF
ISLAND

^aCc = Caretta caretta; Cm = Chelonia mydas; Dc = Dermochelys coriacea; Ei = Eretmochelys imbricata; Lk = Lepidochelys kempfi; Lo = Lepidochelys olivacea; Uk = Unknown

WATS II SEA TURTLE SURVEY DATA FORM

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TABLE III. NESTING BEACH INVENTORY

List Beaches in geographic sequence. Provide additional information on an attached page. Please list each species that occurs on beach on a separate line even if months of occurrence are the same.

COUNTRY BERMUDA STATE — RECORDER JAMES BURNETT HODGES

NAME OF BEACH	LENGTH IN KM	SPECIES NESTING	MONTHS PEAK NESTING	MONTHS RECORDED NESTING
NESTING HAS NOT BEEN				
DOCUMENTED ON ANY BEACH				
DURING THE PAST 80+ YEARS.				

*Cc = Caretta caretta; Cm = Chelonia mydas; Dc = Dermochelys coriacea; E1 = Eretmochelys imbricata; Lk = Lepidochelys kemp; = Lepidochelys olivacea = Uk = Unknown

TABLE IV. MORTALITY

COUNTRY <u>BERMUDA</u> STATE <u>—</u>		YEAR <u>1983/87.</u>		OBSERVER <u>J. Burnett-Herkes</u> <u>J. Gray.</u>			
Date	*Species	Sex	Length	Weight	# Eggs	Locality	Cause
16 Sept 83	Ei	U.	5.3cm	24.2g	—	on beach eastle Harbour	Stranded in Seaweed cause unknown
26 Nov 84	Ei	U	55.8cm	14.5kg	—	on beach Ferry Reach (Grotto Bay)	Washed on beach barely alive cause unknown
21 Nov 85	Ei	U.	19.9cm	750g	—	Found drifting offshore	Gut blocked with poly rope, styrofoam and tar.
25/Dec 85	Ei	U.	24.5cm	2.2kg	—	Found drifting dead Shelly Bay	Advanced condition of decomposition hit by vessel?
8 Feb 87	Cc	U	7.5cm	56g	—	Found in water at Boat Slip, Ireland Is.	Cause unknown Probably water temperature.
21/Nov 84	Cm	U	34.3cm	4.1 kg	—	Spanish Point Bay.	Found weak, bloated paralyzed. Died 1 week after being found.
10 July 85	Cm	U.	28.2cm	?	—	Elbow Beach S. Shore.	Partially decomposed hit by vessel?

Comments:

*Cc = Caretta caretta; Cm = Chelonia mydas; Dc = Dermochelys coriacea; Ei = Eretmochelys imbricata; Lk = Lepidochelys kemp; Lo = Lepidochelys olivacea; Uk = Unknown

WATS II SEA TURTLE SURVEY DATA FORM

TABLE V. HEAD-START PROGRAM SUMMARY OF RELEASES:

COUNTRY BERMUDA STATE — YEAR 83-87 OBSERVER J. Burnard-Hornes
 SOURCE OF EGGS N/A.

Date	Species*	Number	Age	Tag Sequence Numbers	Time Released	Locality
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						
9.						
10.						

Comments:

*Cc = Caretta caretta; Cm = Chelonia mydas; Dc = Dermochelys coriacea; E1 = Eretmochelys imbricata; Lk = Lepidochelys kemp; = Lepidochelys olivacea = Uk = Unknown



NORTH ATLANTIC OCEAN

BERMUDA ISLANDS

FROM ADMIRALTY SURVEYS TO 1960
and United States Government Charts to 1915
with corrections to 1965.

For Symbols and Abbreviations see Admiralty Chart 1011.
All Heights are expressed in Feet above Mean High Water Springs.

SOUNDINGS IN FATHOMS
(Under Eleven in Fathoms and Feet)

Projection — Mercator

