

# THE *AD HOC* DATA REPORT EL REPORTE DE DATOS *AD HOC*

FOR THE COUNTRY OF  
POR EL PAIS DE

BRAZIL  
BRASIL

PREPARED BY / PREPARADO POR

HENRI REICHART



Western Atlantic Turtle Symposium  
Simposio de Tortugas del Atlantico Occidental

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

*Ad Hoc* Report for Brasil, WATS I Vol 3, pages 55-69



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

**AD HOC DATA REPORT**

**FOR THE COUNTRY OF**

**BRASIL**

PREPARED BY

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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:*

Reichart, H.A.. 1984. Ad Hoc Data Report for the Country of Brasil, pp.55-69. 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

BRASIL

SECRETARIA DE PLANEJAMENTO  
DA PRESIDENCIA DA REPUBLICA  
FUNDAÇÃO INSTITUTO BRASILEIRO  
DE GEOGRAFIA E ESTATISTICA  
DIRETORIA DE GEODÉSIA E CARTOGRAFIA

*Ad Hoc* Report for Brasil, WATS I Vol 3, pages 55-69

## COUNTRY: BRAZIL

Most of the information for this *Ad Hoc* Data Report on Brazil has been obtained during field trips to the coastal northeast region of the country in 1979 and 1980 as part of the WWF/ IUCN Project # 1803 "Operation Headstart", green sea turtle population Suriname-Brazil. The purpose of that project was to monitor tag returns from captive-reared green sea turtles released to the sea from Surinam nesting beaches. During these field trips to Brazilian coastal areas it became evident that Brazil had many more sea turtles than people were aware of, and that there exists considerable paucity of available information on the subject. Therefore the goals of Project 1803 were redefined to include the gathering of all sea turtle information that could be obtained during the course of the Project's field trips and to make this available to the Brazilian authorities; this has been accomplished. There is still however a wealth of data to be gathered, out there on the beaches and in the Natural Resources Department offices, but it will require the efforts of dedicated fieldworkers to extract it and put it to use.

Starting in the north, at the border with French Guiana, they are the territory of Amapá, and the States of Pará, Maranhão, Ceará, Rio Grande do Norte, Pernambuco, Alagoas, Bahia. No states south of Bahia were visited, which means that only about half of Brazil's coastline has been sampled. There are reports of turtles nesting in Espírito Santo and large nesting populations of *Caretta caretta* on the beaches of Rio Grande do Sul, the southernmost state of Brazil.

Where possible a standard WATS table was used to describe a particular condition for Brazil as a whole- for instance Table 5, Beach Survey Summary, could be filled out for all of Brazil, because there is no knowledge of any aerial sea turtle surveys ever having been performed in Brazil; or Table 19, where all the currently known sea turtle sanctuaries or refuges in Brazil could be placed on this one page. On the other hand, some tables had to be filled out on a state-by -state basis, especially tables 2, 2A, and 3. For clarification all tables used are headed by either the word "Brazil" or the name of the pertinent state in order to indicate whether this tables applies nationwide or statewide.

Personal observations received priority in entering data into the tables, but most information was obtained SUDERE, SUDEPE and the various academic institutions visited. Additional data came from interviews with federal, state and local officials. Information from fishermen and other apparently knowledgeable persons on or near the beaches was double checked and, when thought to be reliable, was accepted. Unreliable data were recorded in the field notes, but were either not used in the WATS report or marked as being unreliable.

Very little quantitative information could be given, and in the tables a ✓ mark was used to indicate that the requested item is present, but that it could not be enumerated. When the item is not present a horizontal stripe — was used. When the item's status was unknown the space was left blank. As a supplemental reference a copy of the current status report for WWF/ IUCN Project # 1803 has been enclosed. From it, perhaps, additional information may be gleaned for the Symposium records.

### CONCLUSION

When reviewing this *Ad Hoc* report for Brazil it is clear that many gaps exist in the requested information and that practically no numerical data have been supplied. What this *Ad Hoc* report does provide is a rather general overview of the situation in the northeast region of Brazil. In this the report could serve as a starting point on which to establish priorities for future Brazilian action plans regarding their sea turtle resources. It should be recommended that any such plans be developed and enacted on sub-regional preferably state-by-state, bases, naturally with close co-operation between the states.

As stated in the introduction, a good amount of valuable data on sea turtles in Brazil is buried in filing cabinets of the various natural resources offices and academic institutions of the coastal

states. There are also a number of field fisheries officers with practical sea turtle know-how. Any organized sea turtle conservation or research program should start by first assimilating this information to provide additional base data.

#### ACKNOWLEDGEMENTS

It would have been impossible to obtain the information provided here were it not for the excellent cooperation given during the fieldwork by the offices and personnel of SUDERE and SUDEPE in Pará, Ceará, Rio Grande do Norte, Pernambuco and Bahia. The marine laboratories of the Universities of Ceará, Rio Grande do Norte and Bahia were also of immense help.

TABLE 1. GEOGRAPHIC INVENTORY	
Length of Coastline*	7,408 Km
Km <sup>2</sup> of Continental Shelf Area	
Seaward Extent of Jurisdictions	
Territorial Sea**	370.4 Km
Extended Economic Zone***	22.2 Km
Fisheries Jurisdiction***	22.2 Km
Other (Describe)	
<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.</p> <p>** <i>Editor's note (2009):</i> Value in original document given as 200 nautical miles; conversion to kilometers made by editor</p> <p>*** <i>Editor's note (2009):</i> The value in original National Report was given as 12 nautical miles; the conversion to kilometers was made by the editor.</p>	

TABLE 2.1 COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: PARÁ			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	√***	√	√
A. High Energy	√	√	√
B. Low Energy	√	√	√
2. Reef (exposed)	****		√
3. Rocks			√
4. Cliffs			√
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			√
7. Total Shoreline			
<p>* Refer to SEA TURTLE MANUAL (Aerial Survey)</p> <p>** Human development or use (See MANUAL)</p> <p>*** √ = Present but not quantified</p> <p>**** Blank = Unknown</p>			





State of Pará - Area behind beach where turtles are nesting.



State of Pará - typical beach.



State of Pará - typical fishing boat in one of the numerous sea inlets (not necessarily river or creek mouths).



State of Pará - Shrub vegetation behind beach; turtles are supposedly nesting in this area.

**Captions (clockwise, starting with upper left):**

State of Pará – Area behind beach where turtles are nesting.

State of Pará – typical beach.

State of Pará – typical fishing boat in one of the numerous sea inlets (not necessarily river or creek mouths).

State of Pará – Shrub vegetation behind beach; turtles are supposedly nesting in this area.



State of Pará - Praia do Macarico, a recreational beach in the resort town of Salinópolis. Cars regularly drive on the beach. A few hundred meters away from the town area sea turtles are supposed to nest on this beach.



Stranded, broken-off seaweed on beaches near Icapuí, Ceará



State of Pará - typical sand beach with stone cliffs behind beach,



"Changada" (sailing raft), type of fishing boat, used almost exclusively on NE coast of Brazil. Incidentally caught turtles are locally consumed (Barra de S. Antônio, Alagoas).

#### Captions (clockwise, starting with upper left):

State of Pará – Praia do Macarico, a recreational beach in the resort town of Salinópolis. Cars regularly drive on the beach. A few hundred meters away from the town area, sea turtles are supposed to nest on this beach.

Stranded, broken-off seaweed on beaches near Icapuí, Ceará.

State of Pará – typical sand beach with stone cliffs behind beach.

"Changada" (sailing raft), a type of fishing boat, used almost exclusively on NE coast of Brazil. Incidentally caught turtles are locally consumed (barra de S. Antônio, Alagoas).



TABLE 2.2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: MARANHÃO			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	√***	√	√
A. High Energy	****	√	√
B. Low Energy		√	√
2. Reef (exposed)			
3. Rocks			√
4. Cliffs			√
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	√	√	√
7. Total Shoreline			
* Refer to SEA TURTLE MANUAL (Aerial Survey) ** Human development or use (See MANUAL) *** √= Present but not quantified **** Blank = Unknown			

TABLE 2.3. COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: CEARÁ			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	√***	√	√
A. High Energy	√	√	√
B. Low Energy	√	√	√
2. Reef (exposed)	****		√
3. Rocks			√
4. Cliffs			√
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	√	√	√
7. Total Shoreline			Approx. 200 Km
* Refer to SEA TURTLE MANUAL (Aerial Survey) ** Human development or use (See MANUAL) *** √ = Present but not quantified **** Blank = Unknown			

TABLE 2.4. COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: PIAUÍ			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	√***	√	√
A. High Energy	√		√
B. Low Energy	√	√	√
2. Reef (exposed)	****		
3. Rocks			√
4. Cliffs			
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	√		√
7. Total Shoreline			
* Refer to SEA TURTLE MANUAL (Aerial Survey) ** Human development or use (See MANUAL) *** √ = Present but not quantified **** Blank = Unknown			

TABLE 2.5. COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: RIO GRANDE DO NORTE			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	√***	√	√
A. High Energy	√	√	√
B. Low Energy	√	√	√
2. Reef (exposed)	****		√
3. Rocks	√	√	√
4. Cliffs			√
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			√
7. Total Shoreline			150 Km
* Refer to SEA TURTLE MANUAL (Aerial Survey) ** Human development or use (See MANUAL) *** √ = Present but not quantified **** Blank = Unknown			

<b>TABLE 2.6. COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: PERNAMBUCO</b>			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	√***	√	√
A. High Energy	√	√	√
B. Low Energy	√	√	√
2. Reef (exposed)	√		√
3. Rocks	√		√
4. Cliffs	√	√	√
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	√	√	√
7. Total Shoreline			
* Refer to SEA TURTLE MANUAL (Aerial Survey) ** Human development or use (See MANUAL) *** √ = Present but not quantified **** Blank = Unknown			

<b>TABLE 2.7. COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: ALAGOAS</b>			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)			√
A. High Energy	√***	√	√
B. Low Energy	√	√	√
2. Reef (exposed)	√		√
3. Rocks	****		√
4. Cliffs			√
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			√
7. Total Shoreline			
* Refer to SEA TURTLE MANUAL (Aerial Survey) ** Human development or use (See MANUAL) *** √ = Present but not quantified **** Blank = Unknown			

TABLE 2.8. COASTAL HABITAT INVENTORY OF MARINE SHORELINE. STATE OF: BAHIA			
Marine Shoreline Characteristics*	Km of Shoreline		
	Undeveloped	Developed**	Total
1. Sand Beach (Total)	√***	√	√
A. High Energy	√	√	√
B. Low Energy	√	√	√
2. Reef (exposed)	√	√	√
3. Rocks	√	√	√
4. Cliffs	√	√	√
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	√	√	√
7. Total Shoreline			
* Refer to SEA TURTLE MANUAL (Aerial Survey) ** Human development or use (See MANUAL) *** √ = Present but not quantified **** Blank = Unknown			

TABLE 2.1.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: PARÁ		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√*	***
2. Mud	√	
3. Rocks	√	
4. Submerged Vegetation	----**	
5. Reefs (Total)	√	√
A. Fringing Reefs	----	----
B. Patch Reefs	√	√
* √ = Present but not quantified ** ---- = Not present **** Blank = Unknown		

<b>TABLE 2.2.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: MARANHÃO</b>		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√	
2. Mud	√	
3. Rocks	√	
4. Submerged Vegetation		
5. Reefs (Total)	√	
A. Fringing Reefs	----	----
B. Patch Reefs		
*   √ = Present but not quantified **   ---- = Not present **** Blank = Unknown		

<b>TABLE 2.3.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: CEARÁ</b>		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√	
2. Mud		
3. Rocks	√	√
4. Submerged Vegetation	√	√
5. Reefs (Total)	√	√
A. Fringing Reefs		
B. Patch Reefs	√	√
*   X = Present but not quantified **   ---- = Not present **** Blank = Unknown		

<b>TABLE 2.4.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: PIAUÍ</b>		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√	
2. Mud		
3. Rocks	√	√
4. Submerged Vegetation		√
5. Reefs (Total)		√
A. Fringing Reefs		
B. Patch Reefs		√
*   √ = Present but not quantified **   ---- = Not present **** Blank = Unknown		

<b>TABLE 2.5.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: RIO GRANDE DO NORTE</b>		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√	
2. Mud	√	
3. Rocks	√	√
4. Submerged Vegetation	√	√
5. Reefs (Total)	√	√
A. Fringing Reefs		
B. Patch Reefs	√	√
*   √ = Present but not quantified **   ---- = Not present **** Blank = Unknown		

<b>TABLE 2.6.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: PERNAMBUCO</b>		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√	
2. Mud	√	
3. Rocks	√	√
4. Submerged Vegetation	√	√
5. Reefs (Total)	√	√
A. Fringing Reefs	√	√
B. Patch Reefs	√	√
6. Other:	√	√
*   √ = Present but not quantified **   ---- = Not present **** Blank = Unknown		

<b>TABLE 2.7.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: ALAGOAS</b>		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√	√
2. Mud		
3. Rocks	√	√
4. Submerged Vegetation	√	√
5. Reefs (Total)	√	√
A. Fringing Reefs	√	√
B. Patch Reefs	√	√
6. Other:		√
*   √ = Present but not quantified **   ---- = Not present **** Blank = Unknown		



<b>TABLE 2.8.A. MARINE HABITAT INVENTORY OF BOTTOM TYPES. (Supplementary page). STATE OF: BAHIA</b>		
Habitat Bottom Types	Km <sup>2</sup> of Habitat	
	Inside 25m (shoreward)	Outside 25m (shoreward)
1. Sand	√	√
2. Mud		
3. Rocks	√	√
4. Submerged Vegetation	√	
5. Reefs (Total)	√	√
A. Fringing Reefs	√	√
B. Patch Reefs	√	√
6. Other:		√
*   √ = Present but not quantified **   ---- = Not present **** Blank = Unknown		

TABLE 3.1. NESTING BEACH INVENTORY. STATE OF: PARÁ			
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
**		Cm, E	May-August (peak in June)
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		
** There are well over a hundred separate beaches in the state of Pará. Of the dozen or so beaches visited, species and nesting periods can be extrapolated for the entire state with relative safety.			

<b>TABLE 3.2. NESTING BEACH INVENTORY. STATE OF: MARANHÃO</b>			
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
**		Cm, E	December-February (unreliable)
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		

<i>Lepidochelys olivacea</i>	Lo
** There are many beaches along this coast where nesting takes place. Beaches accessible only by sea or air. No beaches were visited. Several villages have airstrips for easy access.	

<b>TABLE 3.3. NESTING BEACH INVENTORY. STATE OF: CEARÁ</b>			
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
***		D**, E	December-mid-April
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		
** Reliable report of only one nesting episode of <i>Dermochelys coriacea</i> in Ceará (1978)			
*** Shoreline practically one continuous beach, but subdivided into several beaches with separate names. Total beach length approximately 200 km.			

<b>TABLE 3.4. NESTING BEACH INVENTORY. STATE OF: PIAUÍ</b>			
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
**		Cm (some), E	December-March (unreliable)
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		
** Most of the shoreline in Piauí consists of sandy beaches with a wide band of sand dunes behind them. Only the western-most stretch (~ 10 km) at the border with Ceará has some dry grasses reaching the coast.			

<b>TABLE 3.5. NESTING BEACH INVENTORY. STATE OF: RIO GRANDE DO NORTE</b>			
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. Maxaranguape		E	December-March
2. Caraubas		Cc, Cm, E	January-March
3. Maracajaú		Cm, E	January-March
4. Zumbi		Cc, E	

5. Caiçara		Cc, Cm, E	
6. Atol das Rocas (200 km offshore)		Cm, E	December-March
7. **			
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		
** Many more beaches in this state, but these were not visited.			

**TABLE 3.6. NESTING BEACH INVENTORY. STATE OF: PERNAMBUCO**

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
***		Cm**, E	December-March
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		
** Only occasionally			
*** Shoreline is mostly one continuous beach subdivided by separate names into many beaches. Only beaches south of Recife were visited, but extrapolation for entire state seems justifiable.			

**TABLE 3.7. NESTING BEACH INVENTORY. STATE OF: ALAGOAS**

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
***		Cm**, E**	January-February
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		
** Neither species nesting in large numbers			
*** Shoreline is mostly one continuous beach (with breaks for rivers). Beach subdivided by separately named beach sections. Extrapolation justifiable. Beaches visited: Guadalupe, Gamela, Carneiros, and Goia			

TABLE 3.8. NESTING BEACH INVENTORY. STATE OF: BAHIA			
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
**		Cc (many), Cm (some), E (some), Lo (rare)	
Species*	Abbreviation		
<i>Caretta caretta</i>	Cc		
<i>Chelonia mydas</i>	Cm		
<i>Dermochelys coriacea</i>	D		
<i>Eretmochelys imbricata</i>	E		
<i>Lepidochelys kemp</i>	Lk		
<i>Lepidochelys olivacea</i>	Lo		
** Many suitable beaches according to SUDEPE office people in Salvador.			

<b>TABLE 7. FORAGING AREAS INVENTORY</b>			
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. State of Maranhão	Along the western half of the coast	Cm	Hearsay and extrapolation of observed algae fields off the coast of Ceará.
2. State of Piauí	Along entire coast	Cm, E	Extrapolation of observed fields in Ceará and actual observation of part of the Piauí fields.
3. State of Ceará	Along entire coast	Cc, Cm, E	Personal observations, interviews, stomach contents.
4. State of Rio Grande Do Norte	Entire coast ?	Cc, Cm, E	Personal observation along central part of the coastline. NW and SE coast unknown but should be alike.
5. Islands of Fernando De Noronha	All around islands	Cm, E	Consistent reports of major feeding fields; from interviews. (approx. 280 km off main coast of Brazil).
6. State of Paraíba			No information but should be foraging area because of coast similarity.
7. State of Pernambuco	Along entire coast	Cc, Cm, E	Observation; interviews.
8. State of Alagoas	Along entire coast	Cc, Cm, E	Observation; interviews; tag returns.
9. State of Sergipe		Cc, Cm, E, Lo	No information, but should be foraging area because of coast similarity. Interview. Lo apparently rare.
10. State of Bahia: Arquipélago de Abrolhos (off the southeast coast of state of Bahia)	Around the islands	Cc, Cm, E, Lo (rare)	Interview.

Species	Abbreviation
<i>Caretta caretta</i>	Cc
<i>Chelonia mydas</i>	Cm
<i>Dermochelys coriacea</i>	D
<i>Eretmochelys imbricata</i>	E
<i>Lepidochelys kemp</i>	Lk
<i>Lepidochelys olivacea</i>	Lo

**TABLE 8. TURTLE SPECIES PRESENT ON FORAGING AREAS**

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

Species	Month												Months of Greatest Activity
	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Caretta caretta</i> *													Unknown
<i>Chelonia mydas</i> **	X	X	X	X	X	X	X				X	X	March-July
<i>Dermochelys coriacea</i>													
<i>Eretmochelys imbricata</i> ***	X	X	X	X	X	X	X	X	X	X	X	X	Unknown, but occurrence all year around
<i>Lepidochelys kemp</i>													
<i>Lepidochelys olivacea</i>													

\* Not many, but evident  
\*\* Many  
\*\*\* Many but less than Cm (*Chelonia mydas*)

**TABLE 9. NON-FORAGING TURTLES AT SEA.**

Please provide any information available on the incidence of turtles in offshore areas.

Location (Give Lat. & Long. Coordinates)	Date	Species and Est. Nos. (Abbreviations)	Comments
Approx. 47°50' W and 0°10' S in State of Pará	Early 1970s	D	One specimen was speared but was discarded as useless. Another specimen was roped and used to pull the boat in fun, ostensibly released later.
Off the coast of the State of Rio Grande Do Norte	Regularly	D	Sporadic sightings by fishermen "far" out at sea (≥15 km). One fisherman's claim of regular sightings (~ 7 km out).

Species	Abbreviation
<i>Caretta caretta</i>	Cc
<i>Chelonia mydas</i>	Cm
<i>Dermochelys coriacea</i>	D
<i>Eretmochelys imbricata</i>	E
<i>Lepidochelys kemp</i>	Lk
<i>Lepidochelys olivacea</i>	Lo

TABLE 11. LANDING SITES FOR TURTLES AND TURTLE PRODUCTS				
Name of Port or Site*	Species Landed	Fishing Gear Used	Months of Landings	Numbers & Weights (estimate)
Bitupita (State of Ceará)	Cm, E	Floating, hanging nets; baited fishlines	April-May (most)	
Almofala (State of Ceará)	Cm, E	Floating, hanging nets	July (largest catches)	Up to 30/day
Icapuí (State of Ceará)	Cm, E	Floating, hanging nets	May (largest catches)	One fisherman had 200 Cm in one year
Species	Abbreviation			
<i>Caretta caretta</i>	Cc			
<i>Chelonia mydas</i>	Cm			
<i>Dermochelys coriacea</i>	D			
<i>Eretmochelys imbricata</i>	E			
<i>Lepidochelys kemp</i>	Lk			
<i>Lepidochelys olivacea</i>	Lo			
* Although all sea turtle taking has been prohibited since 1978, some turtle fishing continues. The named areas were visited but fishing appears to continue in many more beach areas				

TABLE 12. TOTAL ANNUAL TURTLE LANDINGS IN NUMBERS				
Do not include turtles caught incidental to other fishing operations (e.g., shrimp trawling)				
Species	1982	1981	1980	Method of Determination
<i>Caretta caretta</i>	*	*	*	
<i>Chelonia mydas</i>	*	*	*	
<i>Dermochelys coriacea</i>	*	*	*	
<i>Eretmochelys imbricata</i>	*	*	*	
<i>Lepidochelys kemp</i>	*	*	*	
<i>Lepidochelys olivacea</i>	*	*	*	
* Unknown. For reference data, see Appendix D (Supplemental Table 15A)				

TABLE 13.1. ESTIMATED INCIDENTAL TURTLE CATCH (Give estimated numbers and/or weights). STATE OF: PARÁ				
Species	Year			Type of Fishing Activity & Method of Estimation
<i>Caretta caretta</i>				
<i>Chelonia mydas</i>				Fishweirs. All year around. During height of the season (January - May) catch = approximately 2-3 per 10 fishweirs per day. However, Pará must have more than 1,000 weirs in operation*
<i>Dermochelys coriacea</i>				
<i>Eretmochelys imbricata</i>				Same as for Cm but not as many E are being caught*
<i>Lepidochelys kemp</i>				
<i>Lepidochelys olivacea</i>				



TABLE 13.1. ESTIMATED INCIDENTAL TURTLE CATCH (Give estimated numbers and/or weights). STATE OF: PARÁ		
Species	Year	Type of Fishing Activity & Method of Estimation
* Specimens caught are 30 centimeters to adult size. All are locally consumed. Data are for the period up to 1980, but there is no reason to assume it is any different now.		

TABLE 13.2. ESTIMATED INCIDENTAL TURTLE CATCH (Give estimated numbers and/or weights). STATE OF: CEARÁ		
Species	Year	Type of Fishing Activity & Method of Estimation
<i>Caretta caretta</i>		Fishweirs
<i>Chelonia mydas</i>		Fishweirs. Up to 3 specimens per day. Ceará may have well over 100 fishweirs. Shark nets, because of large maze size; small ones (hatchlings, yearlings?) are not usually being caught
<i>Dermochelys coriacea</i>		Fishweir. DC ( <i>Dermochelys coriacea</i> ) caught, but rarely
<i>Eretmochelys imbricata</i>		Fishweirs
<i>Lepidochelys kemp</i>		
<i>Lepidochelys olivacea</i>		

TABLE 15. OFFICIAL STATISTICS OF TURTLE PRODUCTION (Complete one of these tables for each species taken in the fishery)					
Turtle Product	1982*	1981*	1980*	Current Market Price/Unit	Method of Data Collection
No. of eggs					
Meat (kg)					
Shell No./ Wt.					
Skins No./ Wt.					
Stuffed Juveniles					
* No data available for the requested period. Attached Appendix "D" (Supplemental Table 15A) gives catch data for NE Brazil for the period 1976-1978.					

**TABLE 15A. OFFICIAL STATISTICS OF TURTLE CATCH AND PRODUCTION (supplementary page)**

Please provide any additional data on turtle products produced in your country. Include manufactured products such as tortoise shell novelties, etc., if such data are available.

**Editor's note (2009): This table is listed as Appendix D in the original National Report**

Turtle catches* in the northeast states of Brazil. Data provided by SUDERE, Recife.				
State	Years	Hawksbill	Green Turtle	Loggerhead
Maranhão	1977	100	---	---
	1978	150	---	---

Piauí	1976	67	504	6
	1977	48	1,530	---
	1978	44	985	---
Ceará	1976	58	5,333	---
	1977	113	3,167	---
	1978	51	2,016	---
Rio Grande Do Norte	1976	4,186	---	---
	1977	1,026	677	81
	1978	244	1,238	---
Paraíba	1976	208	---	---
	1977	107	---	---
	1978	45	---	---
Pernambuco	1976	223	17,483	---
	1977	15	1,213	---
	1978	---	467	---
Alagoas	1976	7	---	---
	1977	---	---	---
	1978	369	---	---
Sergipe	1976	?	?	---
	1977	?	?	---
	1978	72	---	---
Bahia	1976	?	?	?
	1977	90	1,812	4,024
	1978	---	400	1,759
Totals for the NE states	1976	4,740	23,410	---
	1977	1,684	8,399	4,111
	1978	975	5,106	1,759
* Weighed in kilograms, probably without the head, intestines, carapace and plastron				

**TABLE 16. EMPLOYMENT DEPENDENT ON TURTLES**

Activity	Total Annual Numbers of Persons	Est. Annual Income From Turtles	Comments*
* Since 1978 sea turtles have been fully protected by law. Therefore, since that year there should be no official employment data involving sea turtle exploitation			

**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
IBDF (Brasileiro de Desenvolvimento Florestal) S.A.I.N AV 1/4 5/No Brasilia D.F. 70.300 Brazil		IBDF has offices in all states; only recently concerned with sea turtles. Apparently, IBDF has some biologists visiting beaches occasionally. Nothing further known
LABOMAR(Laboratório de Ciências do Mar) Universidade Federal do Ceará Caixa Postal 1072 60-000 Fortaleza Ceará Brazil		Current activities unknown. But in the past have done algae field inventory and sea turtle stomach content analysis. Very cooperative institute with good facilities. (See the literature list for some of their contributions)

**TABLE 19. SANCTUARIES AND REFUGES**

Name and Location	Area Km <sup>2</sup>	Reason(s) for Protection	Type and effectiveness of Enforcement
Atol da Rocas (Approx. 200 Km east-northeast off Natal, state of Rio Grande do Norte)		Massive nesting of Cm ( <i>Chelonia mydas</i> ). Also some E ( <i>Eretmochelys imbricata</i> )	Recently made a sanctuary. No control but atoll is very inaccessible. Rarely visited
Ilha de Santo Aleixo Just a few kilometers offshore in the state of Pernambuco at the mouth of the Rio Sirinhoéin	Less than 1 km <sup>2</sup>	<i>Eretmochelys imbricata</i> nest here in numbers (December-January)	Private island of conservationist Tr. Carlos Anteanic Mendezes (Recife). He protects E ( <i>Eretmochelys imbricata</i> )

**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
IBDF* (Brasileiro de Desenvolvimento Florestal) S.A.I.N AV 1/4 5/No Brasilia D.F. 70.300 Brazil Telephone: (061) 1711 or 2120			Currently this is the authority under whose jurisdiction sea turtles rest.
SUDENE* (Superintendência do Desenvolvimento do Nordeste) Departamento de Recursos Naturais Cidade Universitária Recife, Pernambuco			SUDENE is represented in every state of northeast Brazil. Not sure what their official jurisdiction is, but SUDENE can open many doors.

SUDEPE* (Superintendência do Desenvolvimento da Pesca) Travessa Padre Prudêncio 226 Belém, Pará CEP 66,000			This is the fisheries department. Address given is for the state of Para and Amapa territory. All states have a SUDEPE office. Turtle fisheries used to be under them.
* IBDF, SUDENE and SUDEPE are all under the Ministry of Agriculture			

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

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

PORTARIA No. 18, dated 29 October 1976, provides restrictions in the taking of sea turtles for all of Brazil. A copy is attached with a copy of the translation (abbreviated) done by the Brazilian Embassy in Suriname.

In 1978 a new PORTARIA was issued, prohibiting the taking of any sea turtle in Brazil. Although a copy of this Portaria was shown, no copy was made available.

English Translation (Summary) of Portaria no. 18  
Van 29-10-1976 (Brazil)

No. 95

Act No. 18 do 29-10-1976  
SUDEPE

Is forbidden the seizure of sea turtles

This determination does not apply to species such as *Chelonia mydas* and *Caretta caretta*.

The gathering of sea turtle eggs is prohibited except for the precept under the exclusive paragraph from the 1<sup>st</sup> art. Landing, transport, commercialization, or the simple imprisonment of sea turtles and of eggs of any kind from these Chelonians is also prohibited. It is prohibited to harass sea turtles at reproduction areas.

It is authorized hereby, the fishing of sea turtles of the species and dimensions discriminated as follow:

- a) yearly from May 1<sup>st</sup> till November 30
- b) exclusively by skilled fishermen
- c) *Chelonia mydas* – 80 cm  
*Caretta caretta* – 70 cm

## PORTARIA SUDEPE Nº 18, DE 29 DE OUTUBRO DE 1976

Proíbe a captura de tartarugas marinhas.

O Superintendente da Superintendência do Desenvolvimento da Pesca - SUDEPE, no uso das atribuições que lhe são conferidas pelo artigo 2º, inciso VII, do Decreto nº 73.632, de 13 de fevereiro de 1974, tendo em vista o disposto no artigo 33, § 2º, do Decreto Lei nº 221, de 28 de fevereiro de 1967, e o que consta do Processo nº S/8800/73, resolve:

Art. 1º - Proibir a captura de tartarugas marinhas.

Parágrafo Único. O disposto neste artigo não se aplica às tartarugas das espécies *Chelonia mydas* e *Caretta caretta*, na forma disciplinada nesta Portaria.

Art. 2º - É proibida a colheita de ovos de tartarugas marinhas.

Art. 3º - Ressalvado o disposto no parágrafo único do artigo 1º, são vedados o desembarque, o transporte, a comercialização ou a simples detenção de tartarugas marinhas e de ovos de qualquer espécie desses quelônios.

Art. 4º - É defeso molestar tartaruga marinha nos locais de reprodução.

Art. 5º - A pesca de tartarugas marinhas das espécies e nas dimensões a seguir disseminadas é permitida, anualmente, no período de 1º de maio a 30 de novembro, exclusivamente a pescadores artesanais:

- I - *Chelonia mydas* - 80 cm;
- II - *Caretta caretta* - 70 cm;

Parágrafo Único. As medidas a que se refere este artigo correspondem ao comprimento da carapaça superior tomado, em linha reta, da extremidade do bordo anterior à do bordo posterior.

Art. 6º - As licenças para a pesca das espécies permitidas serão fornecidas anual e gratuitamente, pela SUDEPE, a pescadores filiados a cooperativa ou colônia de pescadores.

Parágrafo Único. As entidades mencionadas neste artigo informarão ao órgão regional da SUDEPE, mensalmente ou quando por esta solicitado, o número dos indivíduos capturados, segundo a espécie.

Art. 7º - Aos infratores da presente Portaria serão aplicadas as penalidades previstas no artigo 56 do Decreto Lei nº 221, de 28 de fevereiro de 1967, sem prejuízo da suspensão, pelo prazo de um ano, das licenças concedidas.

Art. 8º - Obrigam-se as cooperativas e colônias de pescadores a denunciar as irregularidades praticadas por seus associados, sob pena de serem excluídas, durante um ano, dos benefícios desta Portaria.

Art. 9º - Esta Portaria entra em vigor na data de sua publicação, revogadas as disposições em contrário.

- Josias Luiz Guimarães, Superintendente.

Publicado no Diário Oficial de 09 de novembro 1976

## 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. Carvalho, E. 1972. Sobre a produção pesqueira de alguns currais-de-pesca do Ceará-Dados de 1968 a 1970. Bol. Cien. Mar. 24:1-9.
2. Carr, A. 1975. The Ascension Island green turtle colony. Copeia 3: 547-555.
3. Da Costa, R.S. 1969. Algumas dados biológicos de aruana *Chelonia mydas* (Linnaeus) nas águas cearenses. B. Est. Pesca (9):20-29.
4. Ferreira, M.M. 1968. Sobre a alimentação da aruana, *Chelonia mydas* Linnaeu, do longo da costa do estado Ceará. Arq. Est. Biol. Mar. Univ. Fed. Ceará 8: 83-86.
5. Ferreira De Maneses, M. 1976. <sup>2</sup> As tartarugas marinhas do Brasil. Arg. Cien. Mar. 12(1): 17-20.
6. Paiva, M.F. and H. Nomura. 1965. Sobre a produção pesqueira de alguns currais-de-pesca do Ceará-Dados de 1962 a 1969. Arq. Est. Biol. Mar. Univ. Fed. Ceará 5: 175-214.
7. Paiva, M.F. and A.A. Fonteles Filo. 1968. Sobre a produção pesqueira de alguns currais-de-pesca do Ceará-Dados de 1965 a 1967. Bol. Est. Biol. Mar. Univ. Fed. Ceará, Fortaleza 16: 1-8.
8. Pritchard, P.C. H. 1975. Post-nesting movements of marine turtles (*Cheloniidae* and *Dermochelyidae*) tagged in the Guianas. Copeia 4: 749-754.
9. Schulz, J.P. 1975. Sea Turtle Nesting in Suriname. Zool. Verh. Rijksmus. Nat. Hist. Leiden, No. 143: 1-143.

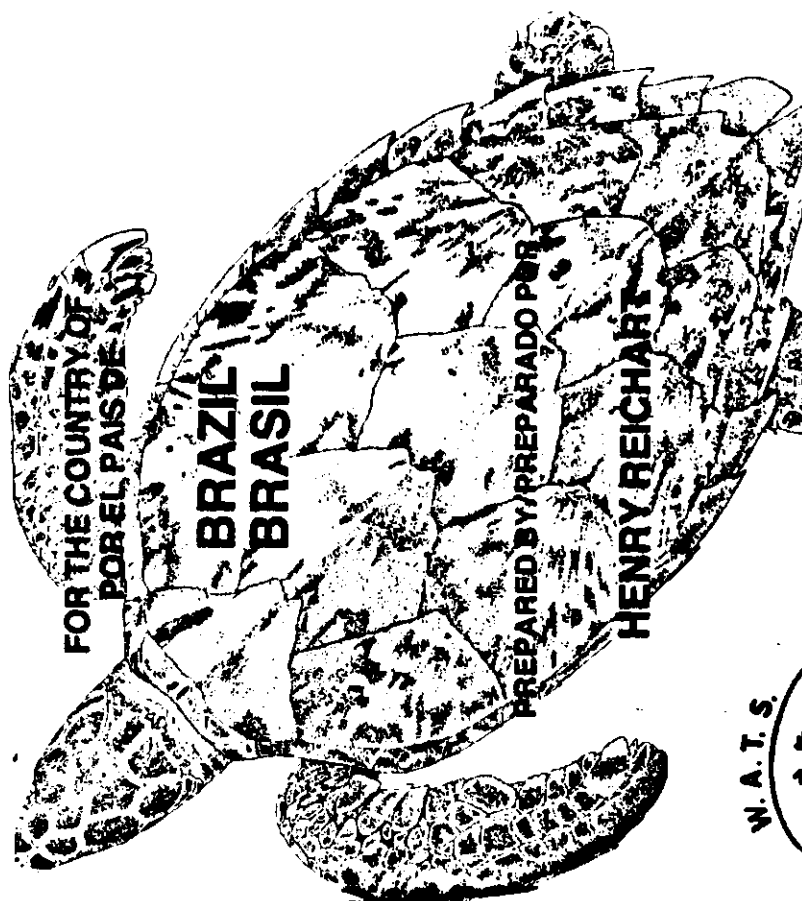
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<sup>2</sup> Editor's note (2009): Original National Report documents listed publication date as 1972. Editor found publication date of 1976 as per website:  
[http://209.85.165.104/search?q=cache:2d14GEWovD8J:ftp://ftp.fao.org/docrep/fao/009/t0244e/T0244E08.pdf+%22Menezes%22+%22tartarugas+marinhas+\\*+Brasil%22&hl=en&ct=clnk&cd=2&gl=us&lr=lang\\_en](http://209.85.165.104/search?q=cache:2d14GEWovD8J:ftp://ftp.fao.org/docrep/fao/009/t0244e/T0244E08.pdf+%22Menezes%22+%22tartarugas+marinhas+*+Brasil%22&hl=en&ct=clnk&cd=2&gl=us&lr=lang_en), on 24 June 2008.





# THE AD HOC DATA REPORT EL REPORTE DE DATOS AD HOC



Western Atlantic Turtle Symposium  
Simposio de Tortugas del Atlantico Occidental

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



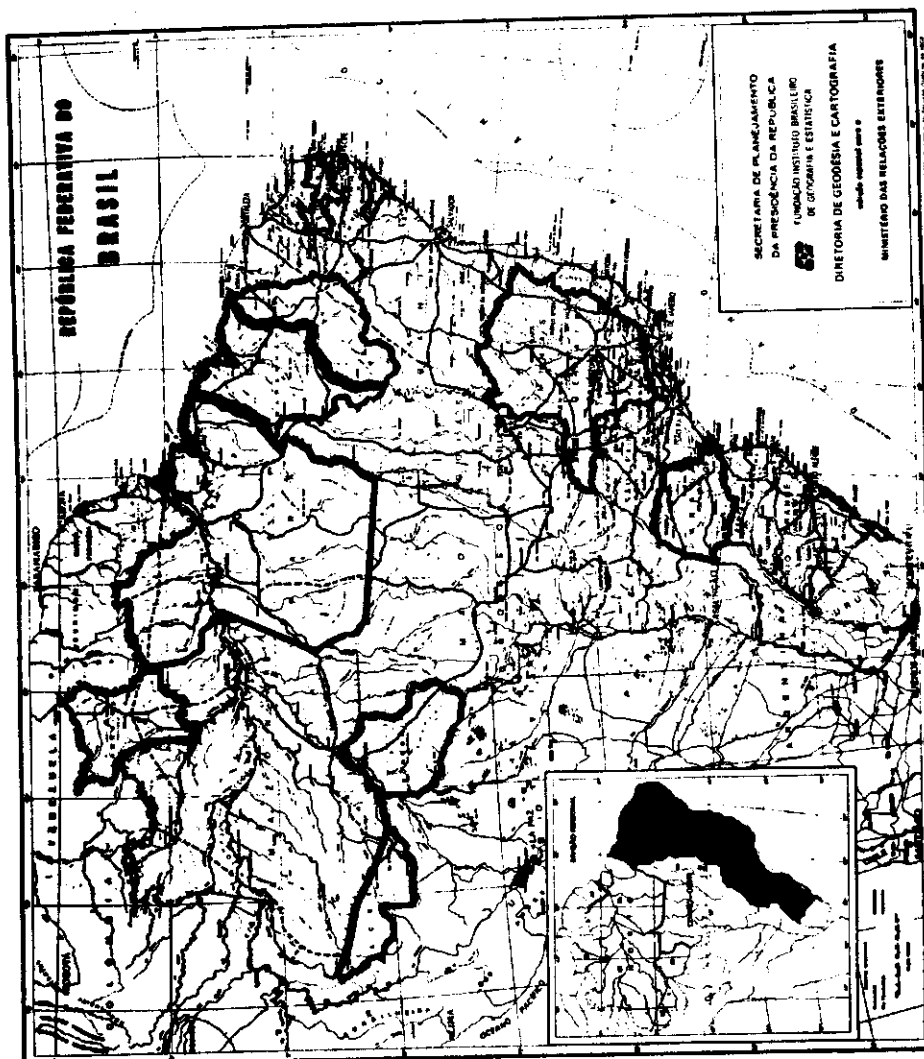
WESTERN ATLANTIC TURTLE SYMPOSIUM

San Jose, Costa Rica  
July 1983

AD HOC DATA REPORT  
FOR THE COUNTRY OF  
BRAZIL

Prepared by: H.A. Reichart  
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Submitted: 11 April 1983



Most of the information for this Ad Hoc Data Report on Brazil has been obtained during fieldtrips to the coastal northwest region of the country in 1979 and 1980 as part of WWF/IOCB Project # 1803, "Operation Mandatari", green sea turtle population Suriname-Brazil. The purpose of that project was to monitor tag returns from captive-reared green sea turtle yearlings, released to the sea from Surinamese nesting beaches. During these fieldtrips to Brazilian coastal areas it soon became evident that Brazil had many more sea turtles than most people were aware of, and that there exists a considerable paucity of available information on the subject. Therefore, the goals of Project # 1803 were redefined to include the gathering of all sea turtle information that could be obtained during the course of the Project's fieldtrips, and to make this available to Brazilian authorities; this has been accomplished. There is, however, still a wealth of data to be gathered, not there on the beaches and in the Natural Resource Department offices, but it will require the efforts of dedicated fieldworkers to extract it and put it to use.

#### ACKNOWLEDGEMENTS

This Ad Hoc Data Report has been modeled after the National Report format, but where deemed desirable, supplementary information and photographs have been inserted in suitable places.

Brazil has 16 states and one territory bordering on the Atlantic Ocean; all have sea turtles in their offshore waters and most also have nesting beaches.

Personal observations received priority in entering data into the tables, but most information was obtained from SEBRAE, SEBRAE, and the various academic institutions visited. Additional data came from interviews with Federal, state, and local officials. Information obtained from fishermen and other apparently knowledgeable persons on or near the beaches was doublechecked and, when thought to be reliable, was accepted. Unreliable data were recorded in the fieldnotes, but were either not used in the WTS report or were marked as being unreliable.

Very little quantitative information could be given, and in the tables a ✓ mark was used to indicate that the requested item is present, but that it could not be quantitated. When the item is not present a horizontal strike — was used. When the item's status was unknown the space was left blank.

As a supplemental reference a copy of the current status report for WWF/IOCB Project # 1803 has been enclosed. From it, perhaps, additional information may be gleaned for the Synopses sections.

#### EXPLANATION

When reviewing this Ad Hoc Data Report for Brazil it is clear that many gaps exist in the requested information and that practically no numerical data have been supplied. What the Ad Hoc Data Report does provide is a

\* Acronyms explained in tables 18 and 20, or in Appendix B of Report #1803.

Starting in the north, at the border with French Guiana, they are: the Territory of Amapá, and the States of Pará, Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, Bahia, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul. Of these, the following states were visited: Pará, Maranhão, Ceará, Rio Grande do Norte, Pernambuco, Alagoas, Bahia.

No states south of Bahia were visited, which means that only about half of Brazil's coastline has been sampled. There are reports of turtles nesting in Espírito Santo and large nesting populations of Chelonia mydas on the beaches of Rio Grande do Sul, the southernmost state of Brazil.

Where possible a standard WTS table was used to describe a particular condition for Brazil as a whole - for instance, table 5, beach survey summary, could be filled out for all of Brazil, because there is no knowledge of any aerial sea turtle surveys ever having been performed in Brazil; or table 19, where all the currently known sea turtle sanctuaries or refuges in Brazil could be placed on this one page. On the other hand, some tables had to be filled out on a state-by-state basis, especially tables 2, 2A, and 3. For clarification all tables used are headed by either the word "Brazil" or the name of the pertinent state in order to indicate whether the table applies nationwide or statewide.

Although the States of Piauí, Paraíba, and Sergipe were not visited, they are located between states that were visited and some cautious, generalized statements have been made about these aspects, due to comparable conditions in the neighboring states.

rather general overview of the situation in the northwest region of Brazil. In this the report would serve as a starting point on which to establish priorities for future Brazilian action plans regarding their sea turtle resources. It should be recommended that any such plans be developed and executed on sub-regional, preferably state-by-state, bases, mutually with close cooperation and coordination between the states.

As stated in the introduction, a good amount of valuable data on sea turtles in Brazil is buried in the filing cabinets of the various natural resources offices and academic institutions of the coastal states. There are also a number of field fisheries officers with practical sea turtle know-how. Any organized sea turtle conservation or research program should start by first associating this information to provide additional base data.

#### ACKNOWLEDGEMENTS

It would have been impossible to obtain the information provided here were it not for the excellent cooperation given during the fieldwork by the officers and personnel of SEBRAE, and SEBRAE in Pará, Ceará, Rio Grande do Norte, Pernambuco and Bahia. The marine laboratories of the Universities of Ceará, Rio Grande do Norte and Bahia were also of immeasurable help.

Country BRAZIL

Length of Coastline\* ..... 7408 km

km<sup>2</sup> of Continental Shelf Area ..... km<sup>2</sup>

Seaward Extent of Jurisdictions:

Territorial Sea ..... 200 nautical miles ..... km

Extended Economic Zone ..... 12 nautical miles ..... km

Fisheries Jurisdiction ..... 12 nautical miles ..... 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.

BLANK = UNKNOWN.

✓ = PRESENT, BUT NOT QUANTIFIED.

STATE OF PARÁ

MARINE SHORELINE CHARACTERISTICS*	km OF SHORELINE		
	UNDEVELOPED**	DEVELOPED**	TOTAL
1. Sand Beach (Total)	✓	✓	✓
A. High Energy	✓	✓	✓
B. Low Energy	✓	✓	✓
2. Reef (exposed)			✓
3. Rocks			✓
4. Cliffs			✓
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			✓
7. Total Shoreline			

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

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



State of Pará - Area behind beach where turtles are nesting.



State of Pará - typical beach.



State of Pará - typical fishing boat in use of the numerous sea inlets (not necessarily river or creek mouths).



State of Pará - Shrub vegetation behind beach; turtles are supposedly nesting in this area.



State of Pinar del Rio, a recreational beach in the resort town of Salimpolis. Cars regularly drive on the beach. A few hundred meters away from the town area sea turtles are supposed to nest on this beach.



State of Pinar - typical seabach with stone cliffs behind beach.

STATE OF CERRA BLANK = UNKNOWN  
✓ = PRESENT, BUT NOT QUANTIFIED

MARINE SHORELINE CHARACTERISTICS*	No. OF SHORELINE DEVELOPED**		TOTAL
	DEVELOPED	NOT DEVELOPED	
1. Sand Beach (Total)	✓	✓	✓
A. High Energy	✓	✓	✓
B. Low Energy	✓	✓	✓
2. Reef (exposed)	✓	✓	✓
3. Rocks			✓
4. Cliffs			✓
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	✓	✓	✓
7. Total Shoreline	✓	✓	✓

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE <sup>a</sup> Refer to SEA TURTLE MANUAL (Aerial Survey) <sup>b</sup> Human development or use (See Manual)

STATE OF MARAUNHO BLANK = UNKNOWN  
✓ = PRESENT, BUT NOT QUANTIFIED

MARINE SHORELINE CHARACTERISTICS*	No. OF SHORELINE DEVELOPED**		TOTAL
	DEVELOPED	NOT DEVELOPED	
1. Sand Beach (Total)	✓	✓	✓
A. High Energy	✓	✓	✓
B. Low Energy	✓	✓	✓
2. Reef (exposed)			✓
3. Rocks			✓
4. Cliffs			✓
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	✓	✓	✓
7. Total Shoreline	✓	✓	✓

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE <sup>a</sup> Refer to SEA TURTLE MANUAL (Aerial Survey) <sup>b</sup> Human development or use (See Manual)

STATE OF PIAU BLANK = UNKNOWN  
✓ = PRESENT, BUT NOT QUANTIFIED

MARINE SHORELINE CHARACTERISTICS*	No. OF SHORELINE DEVELOPED**		TOTAL
	DEVELOPED	NOT DEVELOPED	
1. Sand Beach (Total)	✓	✓	✓
A. High Energy	✓	✓	✓
B. Low Energy	✓	✓	✓
2. Reef (exposed)	✓	✓	✓
3. Rocks			✓
4. Cliffs			✓
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	✓	✓	✓
7. Total Shoreline	✓	✓	✓

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE <sup>a</sup> Refer to SEA TURTLE MANUAL (Aerial Survey) <sup>b</sup> Human development or use (See Manual)



Shrimps, looking off toward the beach near Tropic, Guam.



"Chapala" (milling m/s), type of fishing boat, used almost exclusively on the coast of Sumatra. Mechanically caught turtles are locally common (here in B. Arakha, Sumatra).

STATE OF REPARADO

BLANK = UNKNOWN  
✓ = PRESENT, BUT NOT QUANTIFIED

MARINE SHORELINE CHARACTERISTICS*	Km OF SHORELINE		TOTAL
	UNDEVELOPED	DEVELOPED**	
1. Sand Beach (Total)	✓	✓	✓
A. High Energy	✓	✓	✓
B. Low Energy	✓	✓	✓
2. Reef (exposed)	✓	✓	✓
3. Rocks	✓	✓	✓
4. Cliffs	✓	✓	✓
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	✓	✓	✓
7. Total Shoreline			✓

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

\* Refer to SIA (HISTORICAL MARINE (Aerial Survey))

\*\* Human development or use (See MARINE)

ALABAMA

BLANK = UNKNOWN  
✓ = PRESENT, BUT NOT QUANTIFIED

MARINE SHORELINE CHARACTERISTICS*	Km OF SHORELINE		TOTAL
	UNDEVELOPED	DEVELOPED**	
1. Sand Beach (Total)			✓
A. High Energy	✓	✓	✓
B. Low Energy	✓	✓	✓
2. Reef (exposed)	✓	✓	✓
3. Rocks			✓
4. Cliffs			✓
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			✓
7. Total Shoreline			✓

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

\* Refer to SIA (HISTORICAL MARINE (Aerial Survey))

\*\* Human development or use (See MARINE)

STATE OF ARIZONA

BLANK = UNKNOWN  
✓ = PRESENT, BUT NOT QUANTIFIED

MARINE SHORELINE CHARACTERISTICS*	Km OF SHORELINE		TOTAL
	UNDEVELOPED	DEVELOPED**	
1. Sand Beach (Total)	✓	✓	✓
A. High Energy	✓	✓	✓
B. Low Energy	✓	✓	✓
2. Reef (exposed)			✓
3. Rocks	✓	✓	✓
4. Cliffs			✓
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			✓
7. Total Shoreline			150 KM

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

\* Refer to SIA (HISTORICAL MARINE (Aerial Survey))

\*\* Human development or use (See MARINE)



BLANK = UNKNOWN.

✓ = PRESENT, BUT NOT QUANTIFIED

MARINE SHORELINE CHARACTERISTICS*		km OF SHORELINE	
		UNDEVELOPED SHORELINE**	TOTAL
1. Sand Beach (Total)		✓	✓
A. High Energy		✓	✓
B. Low Energy		✓	✓
2. Reef (exposed)		✓	✓
3. Rocks		✓	✓
4. Cliffs		✓	✓
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		✓	✓
7. Total Shoreline			✓

TABLE 2. COASTAL HABITAT INVENTORY OF MARINE SHORELINE

\* Refer to SEA TURTLE MANUAL (Aerial Survey)

\*\* Human development or use (see MAPS)

STATE OF PAPA

HABITAT BOTTOM TYPES	km <sup>2</sup> OF HABITAT	
	INCLD 25m (SHOFGARD)	OUTSIDE 25m (SEAGARD)
1. Sand	✓	
2. Mud	✓	
3. Rocks	✓	
4. Submerged Vegetation	—	
5. Reefs (Total)	✓	✓
A. Fringing Reefs	—	—
B. Patch Reefs	✓	✓
6. Other		

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

✓ = PRESENT, BUT NOT QUANTIFIED

— = NOT PRESENT

BLANK = UNKNOWN

STATE OF PIRAZI

HABITAT BOTTOM TYPES	km <sup>2</sup> OF HABITAT	
	INCLD 25m (SHOFGARD)	OUTSIDE 25m (SEAGARD)
1. Sand	✓	
2. Mud		
3. Rocks	✓	✓
4. Submerged Vegetation		✓
5. Reefs (Total)		✓
A. Fringing Reefs		
B. Patch Reefs		✓
6. Other		

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

✓ = PRESENT, BUT NOT QUANTIFIED

BLANK = UNKNOWN

STATE OF MARANZO

HABITAT BOTTOM TYPES	km <sup>2</sup> OF HABITAT	
	INCLD 25m (SHOFGARD)	OUTSIDE 25m (SEAGARD)
1. Sand	✓	
2. Mud	✓	
3. Rocks	✓	
4. Submerged Vegetation		
5. Reefs (Total)	✓	—
A. Fringing Reefs		
B. Patch Reefs		
6. Other		

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

✓ = PRESENT, BUT NOT QUANTIFIED

BLANK = UNKNOWN

STATE OF CALIF.

HABITAT BOTTOM TYPES	km <sup>2</sup> OF HABITAT	
	INSIDE 75m (SHOREWARD)	OUTSIDE 75m (SEAWARD)
1. Sand	✓	
2. Mud		
3. Rocks	✓	✓
4. Submerged Vegetation	✓	✓
5. Reefs (Total)	✓	✓
A. Fringing Reefs		
B. Patch Reefs	✓	✓
6. Other BARRIER REEFS	✓	✓

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

✓ = PRESENT, BUT NOT QUANTIFIED

BLANK = UNKNOWN

STATE OF RIO GRANDE DO NORTE

HABITAT BOTTOM TYPES	km <sup>2</sup> OF HABITAT	
	INSIDE 75m (SHOREWARD)	OUTSIDE 75m (SEAWARD)
1. Sand	✓	
2. Mud	✓	
3. Rocks	✓	✓
4. Submerged Vegetation	✓	✓
5. Reefs (Total)	✓	✓
A. Fringing Reefs		
B. Patch Reefs	✓	✓
6. Other		

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

✓ = PRESENT, BUT NOT QUANTIFIED

BLANK = UNKNOWN

STATE OF ARAUCARIA

HABITAT BOTTOM TYPES	km <sup>2</sup> OF HABITAT	
	INSIDE 75m (SHOREWARD)	OUTSIDE 75m (SEAWARD)
1. Sand	✓	
2. Mud	✓	
3. Rocks	✓	✓
4. Submerged Vegetation	✓	✓
5. Reefs (Total)	✓	✓
A. Fringing Reefs	✓	✓
B. Patch Reefs	✓	✓
6. Other	✓	✓

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

STATE OF ALABAMA

HABITAT BOTTOM TYPES	km <sup>2</sup> OF HABITAT	
	INSIDE 75m (SHOREWARD)	OUTSIDE 75m (SEAWARD)
1. Sand	✓	✓
2. Mud		
3. Rocks	✓	✓
4. Submerged Vegetation	✓	✓
5. Reefs (Total)	✓	✓
A. Fringing Reefs	✓	✓
B. Patch Reefs	✓	✓
6. Other BARRIER REEFS		✓

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

✓ = PRESENT, BUT NOT QUANTIFIED

BLANK = UNKNOWN

STATE OF OHIO

HABITAT BOTTOM TYPES	SQ. OF HABITAT	
	INSIDE 25m (SHOULDER)	OUTSIDE 25m (SEABARD)
1. Sand (mostly coral sand)	✓	✓
2. Mud		
3. Rocks	✓	✓
4. Submerged Vegetation	✓	
5. Reefs (total)	✓	✓
A. Fringing Reefs	✓	✓
B. Patch Reefs	✓	✓
6. Other BARRIER REEF		✓

TABLE 2A. MARINE HABITAT INVENTORY OF BOTTOM TYPES

✓ = PRESENT, BUT NOT QUANTIFIED.  
BLANK = UNKNOWN

STATE OF OHIO

NAME OF BEACH	LENGTH IN MI.	SPECIES NESTING (Use abbreviations)	ALLIED MONTHS OF ABANDONED NESTING
THERE ARE WELL OVER A HUNDRED SEPARATE BEACHES IN THE STATE OF OHIO.		C.m. E.L.	MAY - AUGUST (Cont. in June)
BE THE DOREN VISITED SPECIES AND NESTING AREAS CAN BE ESTABLISHED FOR THE ENTIRE STATE WITH RELATIVE SAFETY.			

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

Species Abbreviations:  
C.c. *Caprellia carolinensis*  
C.m. *Caprellia medea*  
D. *Diogenes*  
E.L. *Eurytemora*  
F. *Fundulus*  
L. *Libinia*  
M. *Mysis*

STATE OF OHIO

NAME OF BEACH	LENGTH IN MI.	SPECIES NESTING (Use abbreviations)	ALLIED MONTHS OF ABANDONED NESTING
THERE ARE MANY BEACHES ALONG THE COAST WHERE NESTING THOUSANDS OF BEACHES ARE ACCESSIBLE ONLY BY SEA OR AIR. AT BEACHES WHERE VISITED, SEVERAL VILLAGES HAVE AIRSTRIPS FOR EASY ACCESS.		C.m. E.L.	DEC. - FEBR. (UNRELIABLE)

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

Species Abbreviations:  
C.c. *Caprellia carolinensis*  
C.m. *Caprellia medea*  
D. *Diogenes*  
E.L. *Eurytemora*  
F. *Fundulus*  
L. *Libinia*  
M. *Mysis*

STATE OF OHIO

NAME OF BEACH	LENGTH IN MI.	SPECIES NESTING (Use abbreviations)	ALLIED MONTHS OF ABANDONED NESTING
1. IMPERIAL IN PAINT COUNTS OF SANDY BEACHES WITH A WIDE BAND OF SAND DUNES BEHIND THEM ONLY THE NESTING AREAS AT THE BEACHES ARE DRY HAS SOME DRY GRASSES BEHIND THE COAST.		E.L. SAME	DEC. - MARCH (UNRELIABLE)

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

Species Abbreviations:  
C.c. *Caprellia carolinensis*  
C.m. *Caprellia medea*  
D. *Diogenes*  
E.L. *Eurytemora*  
F. *Fundulus*  
L. *Libinia*  
M. *Mysis*

## STATE OF RIC GRANDE DE NORTE

NAME OF BEACH	LENGTH IN KM.	SPECIES NESTING (Use abbreviations)	MONTHS OF BREEDING NESTING
SHORELINE APPROXIMATELY ONE CONTINUOUS ARROYO, BUT SUBDIVIDED INTO SEVERAL BERMES WITH SEPARATE NAMES. TOTAL BEACH LENGTH APPROX. 200 KM.		E.L. R.C.*	DEC. - MID APRIL

TABLE 3. NESTING BEACH INVENTORY  
list beaches in geographic sequence, OF D. E. IN CARRA!  
Provide additional information on following page. (1978).

Species Abbreviations:

<i>Caralla caralla</i>	Cc
<i>Chelonia mydas</i>	Cm
<i>Dermochelys coriacea</i>	D
<i>Eretmochelys imbricata</i>	E
<i>Lepidochelys kempi</i>	Lk
<i>Lepidochelys olivacea</i>	Lo

NAME OF BEACH	LENGTH IN KM	SPECIES NESTING (Use abbreviations) <sup>a</sup>	PERIODS OF RECURRENT NESTING
SHAGLINE IS MOSTLY ONE CONTINUOUS BEACH WHICH IS SUBDIVIDED BY SEPARATE RIDGES INTO MANY BEACHES. ONLY BEACHES SOUTH OF RIDGE WERE VISITED BUT ESTIMATING FOR ENTIRE STATE SEEMS JUSTIFIABLE.		E. I. C. M.	AUGUST MONTHS OF RECURRENT NESTING DEC. - MARCH

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

**Species Abbreviations:**  
*Artibeus*  
*Chelonia*  
*Desmarestia*  
*Eptesicus*  
*Leptonychia*  
*Myotis*  
*Neotoma*  
*Onychomys*  
*Peromyscus*  
*Reithrodontomys*  
*Sitomys*  
*Tadarida*  
*Uroderma*  
*Xeromys*  
*Zygodontomys*

STATE OF RIO GRANDE DO SUL	NAME OF SPACI	LENGTH IN KM.	SPECIES NESTING (Use abbreviations)*	MONTHS OF OCCUPANCY NESTING
	1. MARACANGUARI		E.C.	DEC. - MARCH
	2. CARAÍBAS		E.C. E.M. E.C.	JAN. - MARCH
	3. MARACATÁ		E.C. E.M.	JAN. - MARCH
	4. ZUMBI		E.C. E.C.	
	5. CAIARA ATL DAS AMAS		E.C. E.M. E.C.	
	6. (ZOOM ORIMAR)		E.M. E.C.	DEC. - MARCH
	MANY MORE 1. BEACHES IN THIS STATE			
	2. BUT THESE WERE NOT			
	3. VISITED			

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

Species Abbreviations:

<i>Varigla carinata</i>	CC
<i>Phaenolia mydas</i>	DM
<i>Dermochelys coriacea</i>	D
<i>Eretmochelys imbricata</i>	E
<i>Lepidochelys kempi</i>	LE
<i>Lepidochelys olivacea</i>	LO

STATE	NAME OF BEACH	LENGTH IN MI.	SPECIES NESTING (Use abbreviations)*	MONTHS OF BEANDED NESTING ALLOWED
	SHORELINE IS 1. MOSTLY ONE CONTINUOUS BEACH 2. (WITH BREAKS AND BAYERS).		E.C. # 60	JAN. - FEB.
	3. BEACH SUBDIVIDED BY SEPARATELY			
	4. NAMED BEACH- SECTIONS.			
	5. EXTENSIVE UNDEVELOPED.			
	6. BEACHES VISITED: GUADALUPE - 1. CAMPELA - 2. CAMERON - 3. GUA			
	4.			
	5.			
	6.			

TABLE 3. NESTING BEACH INVENTORY

Species Abbreviations:	
<i>Carolla carolla</i>	CC
<i>Diutonia mavis</i>	CM
<i>Thermochelys carolinae</i>	C
<i>Trachemys carolinae</i>	T
<i>Chelonia mydas</i>	CH
<i>Chelonia mydas</i>	CH

[illegible]

Species Abbreviations:

<i>Carollia</i>	cc
<i>Carollia</i>	cm
<i>Cratoma</i>	n
<i>Cratoma</i>	o
<i>Cratoma</i>	lo

BRAZIL	NAME OF AREA (or give coordinates)	APPROX. AREA (sq. mi.)	SPECIES FRANKING (Use abbreviations approx. numbers)	NATURE OF EVIDENCE (Observation, fishery, incidental catch)
1.	STATE OF PARANAGUA STATE OF ALAGUAS	ALONG EAST ALONG NORTH EAST	C.M. E.S. E.S. C.M. E.S. E.S.	OBSERVATION. INTERVIEWS. OBSERVATION INTERVIEWS THE RETURN AT INFORMATION, BUT SHOULD BE WARNING AREA DUE TO GREAT SIMILARITY INTERVIEW E.S. APPARENTLY RARE.
2.	STATE OF SERRA STATE OF BANIA	ALONG EAST ALONG NORTH EAST	C.M. E.S. E.S. C.M. E.S. E.S.	OBSERVATION. INTERVIEWS. OBSERVATION INTERVIEWS THE RETURN AT INFORMATION, BUT SHOULD BE WARNING AREA DUE TO GREAT SIMILARITY INTERVIEW E.S. APPARENTLY RARE.
3.	STATE OF SERRA STATE OF BANIA	ALONG EAST ALONG NORTH EAST	C.M. E.S. E.S. C.M. E.S. E.S.	OBSERVATION. INTERVIEWS. OBSERVATION INTERVIEWS THE RETURN AT INFORMATION, BUT SHOULD BE WARNING AREA DUE TO GREAT SIMILARITY INTERVIEW E.S. APPARENTLY RARE.
4.	STATE OF SERRA STATE OF BANIA	ALONG EAST ALONG NORTH EAST	C.M. E.S. E.S. C.M. E.S. E.S.	OBSERVATION. INTERVIEWS. OBSERVATION INTERVIEWS THE RETURN AT INFORMATION, BUT SHOULD BE WARNING AREA DUE TO GREAT SIMILARITY INTERVIEW E.S. APPARENTLY RARE.
5.	STATE OF SERRA STATE OF BANIA	ALONG EAST ALONG NORTH EAST	C.M. E.S. E.S. C.M. E.S. E.S.	OBSERVATION. INTERVIEWS. OBSERVATION INTERVIEWS THE RETURN AT INFORMATION, BUT SHOULD BE WARNING AREA DUE TO GREAT SIMILARITY INTERVIEW E.S. APPARENTLY RARE.

Species Abundant:

<i>Parula carolinensis</i>	Cc
<i>Chondestes motacilla</i>	Cm
<i>Parus carolinensis</i>	C
<i>Geothlypis trichas</i>	F
<i>Geothlypis trichas</i>	Lt
<i>Geothlypis trichas</i>	Lc

NAME OF AREA (or give coordinates)	SUMMIT AREA (sq. ft.)	SPECIES EMERGING (list abbreviations of species, numbers)	NATURE OF EVIDENCE (Invasion, flight, incidental catch)
STATE OF MARQUINHO	ALL THE WINDWARD SIDE OF THE COAST	<u>C. m.</u>	NEARBY AND EXTENSIVE OF OBSERVED ABOVE FIELDS AND THE COAST OF CARRA'
STATE OF PIALU'	ALONG ENTIRE COAST	<u>C. m.</u> <u>E. L.</u>	EXTENSIVE, OF OBSERVED FIELDS IN CARRA', AND IN THE OCCUPATION OF PART OF THE PUBLIC FIELDS
STATE OF CARRA'	ALONG ENTIRE COAST	<u>C. m.</u> <u>E. L.</u> <u>C. L.</u>	PERSONAL OBSERVATION. INTERNAL WINDS. STOMACH CONTENTS.
STATE OF AN MARQUE DO UNTE	ENTIRE COAST ?	<u>C. m.</u> <u>E. L.</u> <u>C. L.</u>	PERSONAL OBSERVATION AND SIGHTS OF COAST GUARD STATION. COAST GUARDIAN NOT SHOULD BE HERE.
ISLANDS OF FERREIRA DE NEBRUA	ALL AROUND ISLANDS	<u>C. m.</u> <u>E. L.</u>	PERMANENT REPORTS OF WINDS, FLYING FIELDS; FROM INTERVIEW. (UNDER REVIEW ON MARINE STATION)
STATE OF PARAIBA			NO INFORMATION, BUT SHOULD BE INFLUENCE AREA, DUE TO COAST SIMILARITY

Species Abbreviations:

<i>Arctostaphylos</i>	Arct.
<i>Chamaecyparis</i>	Chama.
<i>Juniperus</i>	Jun.
<i>Pinus</i>	Pin.
<i>Thuja</i>	Thuja

[illegible]

TABLE 8. — TURTLE SPECIES ENCOUNTERED AND ESTIMATED, 1974-1975. — Please complete one of these tables for each of the areas identified in Table 7. Number each table as enumerated in Table 3 (2-1, 2-2, etc.).

BRAZIL

LOCATION (Give Lat. & Long. coordinates)	DATE	SPECIES AND (SI, MS, Abbr.)	COMMENTS
APRIL 47°S 0°10'S (STATE OF PARA)	EARLY MARCH	D.S.	ONE SPECIMEN WAS SHOT BUT WAS NOT RECORDED AS WELL. ANOTHER SPECIMEN WAS SHOT AND WENT TO THE BEST IN HANDS ATTEMPTING TO RELEASE LATER.
ON THE COAST OF THE (STATE OF PARA)	RECENTLY	D.S.	SHARP SIGHTING BY FISHING MEN "OUT AT SEA" (2-3 IS KM) ONE HUNDRED EIGHT OF REGULAR SIGHTINGS (CONTINUED)

TABLE 9. HYPOTHETICAL TURTLES AT SEA.  
Please provide any information available on the  
incidence of turtles in offshore areas.

Species Abbreviations:  
Cc Caretta caretta  
Ch Chelonia mydas  
Pc Peromedusa carolinae  
Lk Lepidochelys kempi  
Ll Lepidochelys olivacea

BRAZIL

SPECIES	1982	1981	1980	METHOD OF DETERMINATION
<u>Caretta caretta</u>				
<u>Chelonia mydas</u>				
<u>Peromedusa carolinae</u>				
<u>Lepidochelys kempi</u>				
<u>Lepidochelys olivacea</u>				

TABLE 12. TOTAL ANNUAL TURTLE LANDINGS IN NUMBERS AND WEIGHTS (N/A)  
Do not include turtles caught incidentally in other  
fishing operations (e.g., shrimp, trawling).

UNKNOWN.  
FOR REFERENCE DATA  
SEE APPENDIX D -  
ATTACHED TO PART 15

BRAZIL

NAME OF PORT OR SITE	SPECIES (LAND) (Use abbrev.)	FISHING GEAR USED	NUMBER OF LANDINGS	NUMBERS & WEIGHTS (estimate)
1. (STATE OF CEARA) BITUPITA	C.C. E.L.	SHOOTING, HANDING NETS.	1000	1000
2. (STATE OF CEARA) ALMORLA	C.C. E.L.	SHOOTING, HANDING NETS	1000	1000
3. (STATE OF CEARA) ICAPAI	C.C. E.L.	SHOOTING, HANDING NETS	1000	1000
4.				
5.				
6.				
7.				
8.				

TABLE 11. LANDING SITES FOR TURTLES & TURTLE PRODUCTS

ALTHOUGH ALL SEA TURTLE FISHING HAS BEEN  
PROHIBITED SINCE 1974 SOME TURTLE FISHING  
CONTINUES. ABOVE-MENTIONED AREAS WERE  
VISITED BUT FISHING APPEARS TO CONTINUE  
IN MANY MORE BEACH AREAS.

Species Abbreviations:  
Cc Caretta caretta  
Ch Chelonia mydas  
Pc Peromedusa carolinae  
Lk Lepidochelys kempi  
Ll Lepidochelys olivacea

STATE OF PARA

SPECIES	YEAR	TYPE OF FISHING ACTIVITY & METHOD OF ESTIMATION
<u>Caretta caretta</u>	1982	SHOOTING, HANDING NETS
<u>Chelonia mydas</u>	1982	SHOOTING, HANDING NETS
<u>Peromedusa carolinae</u>	1982	SHOOTING, HANDING NETS
<u>Lepidochelys kempi</u>	1982	SHOOTING, HANDING NETS
<u>Lepidochelys olivacea</u>	1982	SHOOTING, HANDING NETS

TABLE 13. ESTIMATED INCIDENTIAL TURTLE CATCH  
Give estimated numbers and/or weights.

\* SPECIMENS CAUGHT ARE  
30 CM TO ABOUT 50 CM.  
ALL ARE LOCALLY CONSUMED.  
DATA IS FOR UP TO 1980 BUT  
NO REASON TO BELIEVE IT IS  
ANY DIFFERENT NOW.

SHOOTING, HANDING NETS  
SHOOTING, HANDING NETS  
SHOOTING, HANDING NETS  
SHOOTING, HANDING NETS  
SHOOTING, HANDING NETS



BR212

INSTITUTION OR ORGANIZATION NAME AND ADDRESS	NO. OF ACTIVE MEMBERS	ACTIVITIES IN PROGRESS
1800 ("Eduardo Buarque" do Desembargador Moraes) S.A.C.M. Av. 15 de Abril 2000 C.A. 70.000, BRASIL.		1800 HAS OFFICES IN ALL STATES. ONLY RECENTLY CONCERNED WITH SEA TRAFFIC. APPARENTLY 1800 HAS NO MAJOR INDUSTRY OUTSIDE BUSINESS OCCASIONALLY. NOTHING PARTNER KNOWN.
2. ABREU (La Comandante de Gineiras do Mar) UNIVERSIDADE FEDERAL DO CEARÁ CAMPUS NOROCCIDENTAL CEARÁ, BRASIL		CURRENT ACTIVITIES UNKNOWN BUT IN THE PAST HAVE DONE ALOT FIELD SURVEY AND SEA TRAFFIC STATION SURVEILLANCE USED COMPARISON INSIGHTS WITH TWO FACILITIES (SEA STATION) THE TWO AT THEIR CONCLUSIONS

MINI C AND PRIVATE INSTITUTIONS COMPENSATION. 47th ANNUAL CONFERENCE/ANNUAL MEETING/SYMPOSIUM

NAME AND ADDRESS OF ORGANIZATION	BUDGET ALLOCATION TO TURTLES	NO. OF STAFF ASSIGNED TO TURTLES	COMMENTS ON LEVELS OF ENFORCEMENT
IBDF (Instituto Brasileiro de Desenvolvimento Florestal) c/o. P.O. Box 1000, Brasilia DF 70.000, Brazil Tel. (602) 1211 or 2120			THIS IS CURRENTLY THE AUTHORITY UNDER WHOSE JURISDICTION SEA TURTLES ROBT.
SUDOP (Superintendencia de Oceanografia de Nordeste) Dept. de Recursos Marinhos c/o. Base Universitaria ABRIL, PARANAGUA			STUDY IS REPRESENTED IN EVERY STATE OF THE REPUBLIC NOT SURE WHAT THEIR SPECIFIC JURISDICTION IS, BUT SEVERAL CAN CAP MARINE BIRDS.
SUDOP (Superintendencia de Oceanografia de Sudeste) Departamento de Recursos Marinhos c/o. Base Universitaria ABRIL, PARANAGUA			THIS IS THE MINISTRY OFP MARINE BIRDS IN THE STATE OF PARA AND MARINE TERRITORY. ALL STATES HAVE A SUDOP OFFICE. TURTLE BIRDS USED TO BE UNDER THEM

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

NAME AND LOCATION	AREA NO.	REASON (+) FOR PROTECTION	TYPE AND EFFECTIVENESS OF ENFORCEMENT
ATEL DAS ROÇAS Approx. 200 km S.W. of Atlix, state of Yuc. at Atlix.		MASSIVE USE OF <u>E.C.</u> ALSO SOME <u>E.C.</u>	RECENTLY OVER 1 SQUADRON, 1000'S OF BIRDS, UNUSUAL BIRDS, UNUSUAL BIRDS, UNUSUAL BIRDS, UNUSUAL
LAKE DE SANTA ALIXO Only a few km. offshore in the state of Yucatan, but mouth of Rio Simulacion	Look than one km <sup>2</sup>	<u>E.C.</u> NEST MORE IN NUMBERS (DEC. - JAN.)	MASSIVE USE OF OF COMBINATION OF CAGES, BUT MASSIVE (P.O.A.) NO MILITARY E.C.

TABLE 19. CANTHARIDIC ACID DERIVATIVES

TABLE 20. REGULATORY AUTHORITY  
(Supplementary page)

PORTLAND No. 18, dated 29 October 1976, provides instructions in the taking of sea turtles for all of Hawaii. A copy is attached with a copy of the translation (abbreviated) because the Hawaiian language is Hawaiian.

In 1978 a new PORTULACA was issued, prohibiting the taking of any sea turtle in Brazil. Although a copy of this Portaria was shown, no copy was made available.



PORTARIA DO IBAMA Nº 18 DE 29-10-1976

O Superintendente do Superintendência do Desenvolvimento do Meio Ambiente - SUDPE, no uso das atribuições que lhe são conferidas pelo Art. 29, inciso VII, do Decreto nº 73.432, de 13 de fevereiro de 1974, tendo em vista o disposto no art. 33, I, 2º, do Decreto-lei nº 231 de 11 de fevereiro de 1967 e o que consta do parecer nº S/1800/73,

**P E S O I V E :**

Art. 1º - Proibir a captura de tartarugas marinhas.

Parágrafo Único - O disposto neste artigo não se aplica às tartarugas das espécies *Chelonia mydas* e *Caretta caretta*, na forma disciplinada nesta Portaria.

Art. 2º - É proibida a coleta de ovos de tartarugas marinhas.

Art. 3º - Ressalvado o disposto no Parágrafo Único do art. 1º, são vedadas a destruição, o transporte, a comercialização ou a simples detenção de tartarugas marinhas ou de ovos de qualquer espécie dessas quelônios.

Art. 4º - É defeso molestar tartarugas marinhas nos locais de reprodução.

Art. 5º - A pesca de tartarugas marinhas das espécies e nas dimensões e segun discriminadas é permitida, exclusivamente, no período de 1º de maio a 31 de novembro, exclusivamente a pescadores artesanais.

1 - *Chelonia mydas* - 75 cm.

2 - *Caretta caretta* - 75 cm.

Parágrafo Único - As medidas a que se refere este artigo correspondem ao comprimento do carapaz superior tomado, em linha reta, de extremidade do osso anterior à de bordo posterior.

Art. 6º - As licenças para a pesca das espécies permitidas são fornecidas, gratuitamente, pelo SUDPE, a pescadores filiados a cooperativas ou clubes de pescadores.

Parágrafo Único - As medidas mencionadas neste artigo enforam o órgão regional do IBAMA, responsável ou quando por este solicitado, o número de indivíduos capturados, segundo a espécie.

Art. 7º - As infrações de preceitos desta Portaria serão aplicadas nas penalidades previstas no art. 56 do Decreto-lei nº 231, de 11 de fevereiro de 1967, sob pena de suspensão, pelo prazo de um ano, das licenças concedidas.

Art. 8º - Obrigam-se os proprietários e condutores de pesqueiros a denunciar as irregularidades praticadas por seus associados, sob pena de serem excluídos durante um ano, dos benefícios deste Portaria.

Art. 9º - Esta Portaria entra em vigor no dia de sua publicação, revogando as disposições em contrário.

JOÃO LUIZ OLIVEIRA  
Superintendente

(publicada no Diário Oficial de 30 de novembro de 1976).

Superintendência do Meio Ambiente - SUDPE  
van 25 - 10 - 1976. (Brasil)

No. 95

Art. 18 de 29-10-1976  
Sudpe-

DETERMINAÇÃO DE PROIBIÇÃO DE PESCA DE TARTARUGAS MARINHAS

This determination does not apply to species such as *CHELONIA MYDAS* and *CARETTA CARETTA*.

Is forbidden the gathering of eggs of sea turtles.

Except for the precept under the exclusive paragraph from the 1º art, is forbidden the: landing, transport, commercialization, or the simple imprisonment of sea turtles and of eggs of any kind from these *CHELONIAN*.

Is prohibited to harass sea turtles at reproduction areas.

It is authorized hereby, the fishing of sea turtles of the species and dimensions discriminated as follow:

- Yearly from May, 1st till November 30.
- Exclusively by skilled fishermen.
- CHELONIA MYDAS* - 80 cm.
- CARETTA CARETTA* - 70 cm.

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