

UNIVERSITY OF HAWAII

Hawaii Institute of Marine Biology
January 19, 1973

Dear ASAC Member,

I would like to call your attention to two changes that should be made in my manuscript "Status of Marine Turtles in Hawaii" which I sent to you at an earlier date.

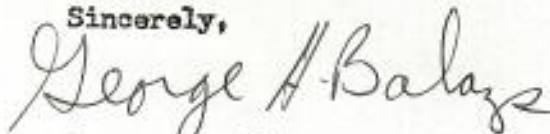
These are:

1. On page 7 and 8 reference is made to the tagging of nesting turtles in the Refuge by Sport Fisheries and Wildlife personnel. Recent discussion with the Bureau Administrators has revealed that the vast majority of the 700+ turtles tagged were "basking" individuals; that is to say that the turtles (both male and female) were lying on the sandy beaches sunning themselves when they were marked. Basking is a habit peculiar to Northern Pacific Green Turtles and is probably related to the cooler environment. Only a few animals (10-15) have ever been tagged in the Refuge while nesting.

The awareness of this fact is of major importance. At the December 1, 1972 ASAC meeting Dr. Garth Murphy used the 700 number that was stated to try to make some sort of a rough estimate of the total breeding population. The basic assumption for his calculations were that the 700 turtles tagged were all females. It is now evident that this is not the case and that far fewer animals probably exist.

2. On page 9 a value of 100 pounds was given for a sexually mature Green Turtle. Two hundred and fifty pounds is the true value, or 100 kilograms. I failed to indicate the proper units.

Sincerely,



George H. Balazs

GHB:bd



HOUSE OF REPRESENTATIVES
STATE CAPITOL
HONOLULU, HAWAII 96813

ANSON CHONG

April 5, 1973

Vice-Chairman:
Water/Land Use & Development
Public Employment

Member:
Finance
Labor
Tourism
Agriculture
Dr. Ernest Ross
Poultry & Animal Science Department
University of Hawaii
Honolulu, Hawaii 96822

Dear Dr. Ross:

In light of your recent testimony on behalf of H.B. 1635, relating to studies on the green sea turtle population, I thought you might be interested in knowing that the Water, Land Use and Development Committee reported the bill out of committee the other day, and the Finance Committee submitted it in amended form to the House for final reading last night.

In order to get the bill reported out of Finance, I had to accept the deletion of a section added by the Water, Land Use and Development Committee, which called for a 3-year moratorium on hunting for green sea turtles. The recommended appropriation was also cut in half, to about \$33,000.

Now, another long battles lies ahead for Senate concurrence, and I suggest that you once again marshall your resources and people to follow and support this bill as it moves through the Senate.

I really think we may be on the verge of getting this thing through.

Sincere aloha,

ANSON CHONG
Representative, 13th District

AC/ms

Enclosures: Standing Committee Reports from House Finance and Water, Land Use & Development committees.

Kenny Brown

(To be made one and ten copies)

HOUSE OF REPRESENTATIVES
SEVENTH LEGISLATURE, 1973.
STATE OF HAWAII

H. B. NO. 245

A BILL FOR AN ACT

MAKING AN APPROPRIATION FOR A RESEARCH MANAGEMENT STUDY OF THE
POPULATION OF THE GREEN SEA TURTLE IN HAWAIIAN WATERS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that the green sea turtle
2 is in danger of becoming an "endangered species" in Hawaiian
3 waters because of the indiscriminate killing, capturing, molest-
4 ing, and possessing of the green sea turtle. The purpose of
5 this Act is to provide for a research management study of the
6 population of the green sea turtle in Hawaiian waters.

7 SECTION 2. There is appropriated out of the general
8 revenues of the State of Hawaii the sum of \$50,000, or so much
9 thereof as may be necessary, for a research management study
10 of the population of the green sea turtle (Chelonia species)
11 in Hawaiian waters. The study shall include an inventory of
12 the green sea turtle population in Hawaii waters and a program
13 to insure the preservation of the green sea turtle (Chelonia
14 species).

15 SECTION 3. The sum appropriated shall be expended by
16 the department of land and natural resources for the purpose
17 of this Act.
18

SECTION 4. This Act shall take effect upon its approval.

INTRODUCED BY:

John S. Carroll

Victor Spada
 Robert Kaminian
 Yusef W. ...
 ...
 Andrew K. ...
 Alvin P. ...
 Joseph R. ...
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 Clarence V. ...
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JAN 22 1973

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HOUSE CONCURRENT RESOLUTION

REQUESTING THE PEOPLE OF HAWAII TO AID IN THE PRESERVATION OF THE GREEN SEA TURTLE WHICH IS CONSIDERED AN ENDANGERED SPECIES THROUGHOUT THE WORLD.

WHEREAS, man has continually expanded his control of the environment and ecology of his surroundings and by doing so has already exterminated numerous birds and mammals; and

WHEREAS, man should learn to protect those birds, mammals, and water life left on this earth for their benefit and for the benefit of his children; and

WHEREAS, an endangered species is one whose prospects for survival and reproduction are in immediate jeopardy who needs help or extinction will result; and

WHEREAS, one of the endangered species which is frequently seen in the Hawaii waters is the green sea turtle (Chelonia species); and

WHEREAS, the Legislature of the State of Hawaii is concerned with endangered species and has placed certain species under legal protection in accordance with Part II of Chapter 191; and

WHEREAS, the Legislature feels that the green sea turtle should also be protected as an endangered species; now, therefore,

BE IT RESOLVED by the House of Representatives of the Seventh Legislature of the State of Hawaii, Regular Session of 1973, the Senate concurring, that the people of the State of Hawaii are urged not to molest, kill, or capture the green sea turtle (Chelonia species) and are urged not to take, collect, molest, or destroy any eggs of the green sea turtle; and

BE IT FURTHER RESOLVED that the Department of Land and Natural Resources is requested to promulgate rules and regulations pursuant to Chapter 190-3 of the Hawaii Revised Statutes to limit the sale and taking of the green sea turtle; and

BE IT FURTHER RESOLVED that a certified copy of this Concurrent Resolution be transmitted to the Chairman of the Board of Land and Natural Resources.

OFFERED BY: John S. Canoll

- Victor H. ...*
- John ...*
- Robert K. ...*
- Alvin P. ...*
- Wing ...*
- Clarence J. ...*
- Jack H. ...*
- Erson ...*
- Carl ...*

JAN 23 1973

HOUSE RESOLUTION

REQUESTING THE PEOPLE OF HAWAII TO AID IN THE PRESERVATION OF THE GREEN SEA TURTLE WHICH IS CONSIDERED AN ENDANGERED SPECIES THROUGHOUT THE WORLD.

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WHEREAS, man should learn to protect those birds, mammals, and water life left on this earth for their benefit and for the benefit of his children; and

WHEREAS, an endangered species is one whose prospects for survival and reproduction are in immediate jeopardy who needs help or extinction will result; and

WHEREAS, one of the endangered species which is frequently seen in the Hawaii waters is the green sea turtle (Chelonia species); and

WHEREAS, the Legislature of the State of Hawaii is concerned with endangered species and has placed certain species under legal protection in accordance with Part II of Chapter 191; and

WHEREAS, the Legislature feels that the green sea turtle should also be protected as an endangered species; now, therefore,

BE IT RESOLVED by the House of Representatives of the Seventh Legislature of the State of Hawaii, Regular Session of 1973, that the people of the State of Hawaii are urged not to molest, kill, or capture the green sea turtle (Chelonia species) and are urged not to take, collect, molest, or destroy any eggs of the green sea turtle; and

BE IT FURTHER RESOLVED that the Department of Land and Natural Resources is requested to promulgate rules and regulations pursuant to Chapter 190-3 of the Hawaii Revised Statutes to limit the sale and taking of the green sea turtle; and

BE IT FURTHER RESOLVED that a certified copy of this Resolution be transmitted to the Chairman of the Board of Land and Natural Resources.

OFFERED BY: J. S. Carroll

Victor Uechi
Y. M. T. Tubunan
Ch. L. ...
Robert K. ...
Alvin P. Amara
Joseph R. ...
Singkong ...
Clarence Y. ...
Jack H. ...
... ..
... ..

JAN 23 1973

STAND. COM. REP. NO. 710

Honolulu, Hawaii

April 4, 1973

Re: H. B. No. 1635
H. D. 2

The Honorable Tadao Beppu
Speaker, House of Representatives
Seventh Legislature
Regular Session, 1973
State of Hawaii

Sir:

Your Committee on Finance to which was referred H. B. No. 1635, H. D. 1, entitled: "A BILL FOR AN ACT MAKING APPROPRIATIONS FOR RESEARCH MANAGEMENT STUDIES OF THE POPULATION OF THE GREEN SEA TURTLE IN HAWAIIAN WATERS AND STEPS WHICH MAY LEAD TO THE PRESERVATION AND INCREASE OF THAT POPULATION.", begs leave to report as follows:

The purpose of this bill is to appropriate funds to provide for a research management study of the population of the green sea turtle in Hawaiian waters and to provide for preliminary feasibility studies which may lead to means of (1) halting or reversing their decline, and (2) raising turtles in captivity for food.

Your Committee on Parks, Fish and Game Management, and Water, Land Use and Development in Stand. Com. Rep. Nos. 371 and 550, respectively, have well set forth the problems and plight of the green sea turtle in their recommendations upon this bill. It can be concluded therefrom that the decline in their numbers is attributable to commercial exploitation, and it is apparent that the three-year moratorium against their taking or selling and the imposition of quotas therefor, included as an amendment to the bill by the latter Committee, so that their supply can be determined, is really directed at inhibiting commercialism. While we are in agreement with the spirit of this measure on that basis, to the extent that the amendment also prohibits private taking for home use, we cannot concur (unless the research management study discloses that it is warranted). Thus, section 6 of the bill, as amended, has been deleted.

The sums appropriated to the department of land and natural resources are recommended for adjustment: The research management

study in section 2, to \$25,000; the feasibility study for increasing population size in section 3, to \$5,000; while the feasibility study on raising turtles for food in section 4 remain intact.

Your Committee on Finance is in accord with the intent and purpose of H. B. No. 1635, H. D. 1, as amended herein, and recommends that it pass third reading in the form attached hereto as H. B. No. 1635, H. D. 2.

Respectfully submitted,

Jack K. Suwa
JACK K. SUWA, Chairman

Anson Chong
ANSON CHONG, Member

Clarence Y. Akizaki
CLARENCE Y. AKIZAKI, Vice Chairman

Tats Kishinami
TATS KISHINAMI, Member

Jann L. Yuen
JANN L. YUEN, Member

Ronald Y. Kondo
RONALD Y. KONDO, Member

Ralph K. Ajifu
RALPH K. AJIFU, Member

Tony T. Kunitamura
TONY T. KUNITAMURA, Member

Alvin T. Amaral
ALVIN T. AMARAL, Member

Excused
TED T. MORIOKA, Member

Wing Kong Chong
WING KONG CHONG, Member

Keo Nakama
KEO NAKAMA, Member

Andrew K. Poepe
ANDREW K. POEPOE, Member

A BILL FOR AN ACT

MAKING APPROPRIATIONS FOR RESEARCH MANAGEMENT STUDIES OF THE
POPULATION OF THE GREEN SEA TURTLE IN HAWAIIAN WATERS
AND STEPS WHICH MAY LEAD TO THE PRESERVATION AND INCREASE
OF THAT POPULATION.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that the green sea turtle
2 (Chelonia species) populations are declining and that such decline
3 is a matter worthy of this body's concern and of efforts to study
4 the causes of and to halt said decline and if possible, reverse it.
5 The purposes of this Act are to provide for a research management
6 study of the population of the green sea turtle in Hawaiian waters
7 and to provide for preliminary feasibility studies which may lead
8 to means of halting or reversing the decline of the populations
9 while still supplying the appetites of the people of the State of
10 Hawaii and the visitor industry.

11 SECTION 2. There is appropriated out of the general revenues
12 of the State of Hawaii the sum of \$25,000, or so much thereof as
13 may be necessary, for a research management study of the population
14 of the green sea turtle in Hawaiian waters. The study shall include
15 an inventory of the green sea turtle population and a program to
16 insure the preservation of the green sea turtle in Hawaiian waters.

1 SECTION 3. There is appropriated out of the general revenues
2 of the State of Hawaii a sum of \$5,000, or so much thereof as may
3 be necessary, for a preliminary feasibility study of the possibili-
4 ties of increasing the size of the population by locating and
5 rendering protection against man and other predators to the nest-
6 ing beaches or implementing hatcheries or such other means of
7 increasing the size of the population as may be learned.

8 SECTION 4. There is appropriated out of the general revenues
9 of the State of Hawaii a sum of \$5,000, or so much thereof as may
10 be necessary, for a preliminary feasibility study of the possibility
11 of encouraging an industry comprised of commercial ventures which
12 by raising turtles in captivity for food would supply the appetites
13 of the people of the State of Hawaii and the visitor industry
14 thereby relieving the existing natural indigeneous green sea turtle
15 of the pressures of predations against it for this purpose.

16 SECTION 5. The sums appropriated shall be expended by the
17 department of land and natural resources for the purposes of this
18 Act.

19 SECTION 6. This Act shall take effect upon its approval.
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Honolulu, Hawaii

April 2, 1973

RE: H. B. No. 1635
H. D. 1

The Honorable Tadao Beppu
Speaker, House of Representatives
Seventh Legislature
Regular Session, 1973
State of Hawaii

Sir:

Your Committee on Water, Land Use and Development to which was referred H. B. No. 1635 entitled: "A BILL FOR AN ACT MAKING APPROPRIATIONS FOR RESEARCH MANAGEMENT STUDIES OF THE POPULATION OF THE GREEN SEA TURTLE IN HAWAIIAN WATERS AND STEPS WHICH MAY LEAD TO THE PRESERVATION AND INCREASE OF THAT POPULATION", begs leave to report as follows:

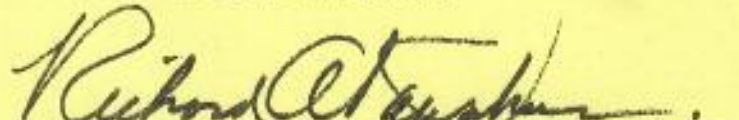
The purpose of this bill is to appropriate \$65,000 to provide for a research management study of the population of the green sea turtle in Hawaiian waters and to provide for preliminary feasibility studies which may lead to means of halting or reversing the decline of these valuable and threatened animals.

Hawaii State Fish and Game Division records show that the commercial exploitation of these salt water reptiles has increased drastically over the past nine years. A low of 380 pounds of sea turtle was reported taken in 1963 while a record high of 25,583 pounds was reported for 1972. A large portion of this commercial catch now enters the tourist industry to be sold as turtle steaks, thus increases in exploitation can be expected to continue so long as our visitors create a demand. Since turtles that are captured but not sold for profit need not be reported to the Fish and Game Division, it is unknown how many animals are taken each year just for home use.

The potential of the green sea turtle as an important food item is known. Unfortunately, little is known about the supply. Therefore, your Committee has amended this bill to provide a three-year moratorium on the taking and selling of the green sea turtle while the studies are being made and the supply determined. The amendment is contained in Section 6 of the bill and reads: "No person shall take green turtles or eggs for private or for commercial use for a period of three years beginning with the effective date of this Act. Any person violating the provisions of this section shall be fined not less than \$25 nor more than \$200, or imprisoned nor more than fifty days, or both". The previous section 6 of the bill dealing with the effective date is appropriately renumbered as section 7.

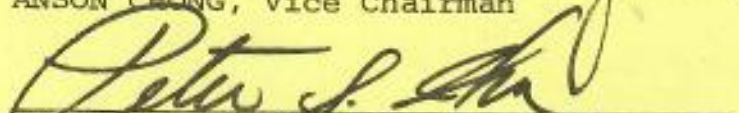
Your Committee on Water, Land Use and Development is in accord with the intent and purpose of H. B. No. 1635 as amended herein, and recommends that it be referred to the Committee on Finance in the form attached hereto as H. B. No. 1635, H. D. 1.

Respectfully submitted,

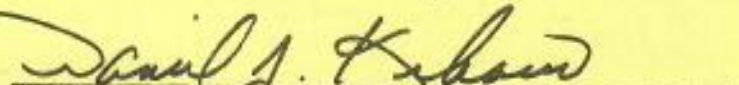

RICHARD A. KAWAKAMI, Chairman


ANSON CHONG, Vice Chairman

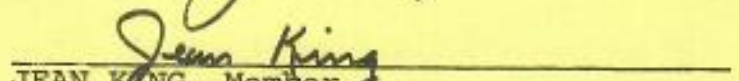

PETER A. ADUJA, Member



PETER S. IHA, Member

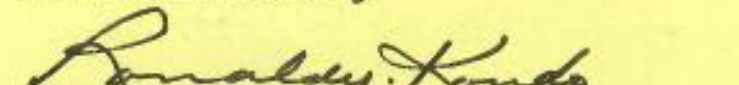

RALPH K. AJIFU, Member

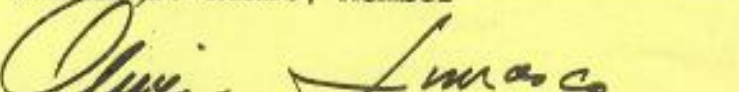

DANIEL J. KIHANO, Member


JOHN J. MEDEIROS, Member

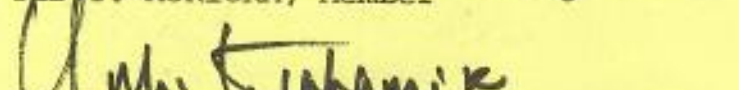

JEAN KING, Member


ANDREW K. POEPOE, Member


RONALD F. KONDO, Member


OLIVER LUNASCO, Member


TED T. MORIOKA, Member


YOSHITO TAKAMINE, Member


HERMAN WEDEMEYER, Member

A BILL FOR AN ACT

MAKING APPROPRIATIONS FOR RESEARCH MANAGEMENT STUDIES OF THE
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BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. The legislature finds that the green sea turtle
2 (Chelonia species) populations are declining and that such decline
3 is a matter worthy of this body's concern and of efforts to study
4 the causes of and to halt said decline and if possible, reverse it.
5 The purposes of this Act are to provide for a research management
6 study of the population of the green sea turtle in Hawaiian waters
7 and to provide for preliminary feasibility studies which may lead
8 to means of halting or reversing the decline of the populations
9 while still supplying the appetites of the people of the State of
10 Hawaii and the visitor industry.

11 SECTION 2. There is appropriated out of the general revenues
12 of the State of Hawaii the sum of \$50,000, or so much thereof as
13 may be necessary, for a research management study of the population
14 of the green sea turtle in Hawaiian waters. The study shall include
15 an inventory of the green sea turtle population and a program to
16 insure the preservation of the green sea turtle in Hawaiian waters.

17 SECTION 3. There is appropriated out of the general revenues
18 of the State of Hawaii a sum of \$10,000, or so much thereof as may
19 be necessary, for a preliminary feasibility study of the possibili-

1 ties of increasing the size of the population by locating and
2 rendering protection against man and other predators to the nest-
3 ing beaches or implementing hatcheries or such other means of
4 increasing the size of the population as may be learned.

5 SECTION 4. There is appropriated out of the general revenues
6 of the State of Hawaii a sum of \$5,000, or so much thereof as may
7 be necessary, for a preliminary feasibility study of the possibility
8 of encouraging an industry comprised of commercial ventures which
9 by raising turtles in captivity for food would supply the appetites
10 of the people of the State of Hawaii and the visitor industry
11 thereby relieving the existing natural indigeneous green sea turtle
12 of the pressures of predations against it for this purpose.

13 SECTION 5. The sums appropriated shall be expended by the
14 Department of Land and Natural Resources for the purposes of this
15 Act.

16 SECTION 6. Chapter 188, Hawaii Revised Statutes, is amended
17 by adding a new section to be appropriately numbered and to read as
18 follows:

19 "Sec. 188-____. Green Sea Turtles. No person shall take or
20 sell green sea turtles or eggs for private or for commercial use
21 for a period of three years beginning with the effective date of
22 this Act. Any person violating the provisions of this section shall
23 be fined not less than \$25 nor more than \$200, or imprisoned not
24 more than fifty days, or both."

25 SECTION 7. This Act shall take effect upon its approval.

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 847-3511

TO: Other Members of Animal Species Advisory Commission

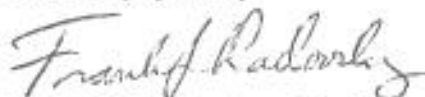
FROM: Frank J. Radovsky

SUBJECT: Proposed Protection for Marine Turtles, drafted and forwarded by
George H. Balazs.

The subject proposal and the status report on marine turtles by Mr. Balazs were mailed to each of us with Mr. Endrizal's memorandum of January 8. The "Proposed Green Sea Turtle Regulation" is on the agenda for the meeting of January 12.

I felt that the legislation proposed by Mr. Balazs would not adequately protect the turtles. In particular, the addition of some control on commercial use of turtles seems essential for an effective law. Mr. Balazs indicated to me that his proposal was strongly compromised in his expectation that it would find greater acceptance. He agreed that it would be desirable to have broader controls. We have prepared the enclosed amended version of his proposal for consideration by the Commission.

Sincerely yours,



Frank J. Radovsky, Member
Animal Species Advisory Commission

Enclosure

cc: George H. Balazs

January 10, 1973

January 18, 1973

Mr. Michio Takata, Director
Division of Fish and Game
1179 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Takata:

I would like to initiate a computer research study using the data that the Division of Fish and Game has on file pertaining to the capture of marine turtles in Hawaii. Although the student help that I have available for such work is limited, I would nevertheless like to start this study at the present time. Mr. Randy Chou, who works part-time for me, has made initial contact with Mr. Shimizu of your Division concerning this subject. It was indicated that your direct approval would be necessary in the matter.

In practical terms, this project would involve the transfer of data, such as monthly catch, area taken, method used, etc., to IBM punch cards. A program is now being devised that will be capable of retrieving such data in the most useable form. As you may be aware, the Hawaii Institute of Marine Biology has several advanced computer systems.

Ideally, several months of records could be transported to Coconut Island at one time for direct transfer of turtle data to cards using our key punch unit. A less desirable method would be for Mr. Chou to transcribe data by hand at your office and then enter the material on cards at HIMB. The final decision on how this will be accomplished will, of course, be entirely up to you.

I would greatly appreciate your assistance in this matter in the near future.

Sincerely,

George H. Balazs
Animal Nutritionist

mk

cc: J. E. Bardach
✓ E. Ross
R. Chou

PROPOSED RESEARCH STUDY OF MARINE TURTLE POPULATIONS

IN THE HAWAIIAN ISLANDS

BY: George H. Balazs
Hawaii Institute of Marine Biology

In conjunction with the proposed protective limitations on the capture of marine turtles within the State, it is hereby requested that \$45,000 in funds be provided for a 3 year research study dealing with the management of marine turtle populations in the Hawaiian Islands. Such an investigation of this Central Pacific colony is particularly critical at this time due to the fact that overexploitation of marine turtle resources is widespread throughout the world. This makes it imperative that as much knowledge as possible be obtained on Hawaii's turtles to determine whether or not additional protection is necessary to ensure their continued viability and existence. Hawaii's green turtle population may very well comprise the largest remaining nesting colony left in the United States.

The initial objectives of the proposed study are:

1. To determine the present size of the green turtle population. Included would be the collection of much needed additional data on migration, nesting occurrence both within and between seasons, and length-weight frequencies of individuals. This would be accomplished by implementing an intensive tagging program at several selected nesting sites in the Hawaiian Islands National Wildlife Refuge. Such a project would be carried out in close cooperation with the Bureau of Sport Fisheries and Wildlife to ensure that adequate safeguards are taken against disturbing other delicate wildlife present in the area.
2. To investigate the movement of adult and sub-adult populations between the various feeding areas found around the major islands. This would involve the capture, tagging and subsequent recapture of individuals in the grazing habitats. Assistance from the Division of Fish and Game and the National Marine Fisheries Service would greatly expedite this phase of the project.
3. To determine which types of algae and in what proportions are utilized as food. This would be accomplished by the systematic examination of stomach contents from turtles caught by commercial fishermen.
4. To devise and implement a computer program study which will statistically analyze all records relating to turtle catch that are presently on file at the Division of Fish and Game.

The expertise, personnel, facilities and equipment to direct and carry out these objectives exists within the framework of the Hawaii Institute of Marine Biology. The project would thus represent a teamwork effort on the part of Hawaii's scientific community to study a valuable indigenous resource.

PROPOSED PROTECTION FOR MARINE TURTLES

PREPARED BY: George H. Balazs

Recognizing the fact that title to all wildlife belongs to the State in its sovereign capacity, and that the State holds this title in trust for the people of Hawaii, and that the State has a right and an obligation to protect, perpetuate and control wildlife within its boundaries, the following bill for an act relating to the protection of marine turtles is hereby proposed:

1. It shall be unlawful for any person to take, sell, kill, possess, mutilate or in any way disturb any Leatherback (Dermochelys sp.) or Hawksbill (Eretmochelys sp.) in or from the territorial waters of the State of Hawaii.
2. It shall be unlawful for any person to take, sell, kill, possess, mutilate or in any way disturb any green turtle (Chelonia sp.) in or from the territorial waters of the State of Hawaii which surround the Hawaiian Islands National Wildlife Refuge.
3. It shall be unlawful for any person to take, sell, kill, possess, mutilate or in any way disturb any green turtle in or from the territorial waters of the State of Hawaii which surround the major islands (Hawaii, Maui, Kahoolawe, Lanai, Molokai, Oahu, Kauai and Niihau) excepting green turtles having a straight line carapace measurement of more than thirty-four (34) inches.
4. It shall be unlawful for any live marine turtle to be held in captivity or transported within or across the boundaries of the State except by special permit which will be granted by the Division of Fish and Game only for educational or scientific purposes. The number of animals held for such purposes by any one person or institution shall not exceed that as deemed reasonable, prudent and necessary by the Division of Fish and Game.
5. Any officer or agent authorized by the Division of Fish and Game shall have authority to execute any warrant to search for and seize any animal or animal product held in violation of sections 1, 2, 3 or 4 of this act. Such material shall be held pending proceedings in any court of proper jurisdiction. Upon the conviction of any person charged with a violation of section 1, 2, 3 or 4 of this act the animal or animal product seized shall be forfeited and either released, offered to a recognized institution for scientific or educational purposes, or destroyed.
6. Any person convicted of violating any section of this act shall be fined not more than \$500 or imprisoned not more than 6 months or both.

January, 1973

~~REDACTED~~
I have recently received the following additional information concerning marine turtles:

CALIFORNIA-

1. In October of 1971 the State of California enacted S.B. 1614. This bill states that 'it is unlawful to import into the state for commercial purposes, to possess with intent to sell, or to sell within the state, the dead body or any part or product thereof, of any ----sea turtle' (in addition, 21 other animals are listed).

Republic of the Philippines-

2. In June of 1967 the following fisheries administrative order (No. 88) went into effect: " It shall be unlawful for any person, association or corporation to catch or kill marine turtles or gather turtle eggs or turtle shells in any place in the Philippines, more particularly in the Turtle Islands for a period of five (5) years from the approval of this Order." Section 3 makes exemptions for scientific, educational or propagation purposes by permit only.

Since 1967 jurisdiction over marine turtles has been transferred to the Parks and Wildlife Office. I am in the process of finding out what regulations are presently in effect since the 1967 order would have expired in 1972.

George H. Balazs

George H. Balazs

PROPOSED PROTECTION FOR MARINE TURTLES

PREPARED BY: George H. Balazs

1. Complete protection shall be provided for Leatherback (Dermochelys sp.) and Hawksbill (Eretmochelys sp.) turtles in all territorial waters of the State of Hawaii.

Justification: Leatherbacks are of little economic value and are rarely seen in Hawaiian waters. Encroachment by man on the few known nesting sites in the world necessitates protection by all governments before excessive reduction in numbers occurs. Hawksbills are officially recognized by the federal government as an endangered species. No Hawksbill or products derived from the Hawksbill may be imported into the United States. Recognition of the fact that these animals are threatened with extinction should be given by the State of Hawaii in the form of complete protection.

2. Complete protection shall be provided for all green turtles (Chelonia sp.) within the territorial waters of the Hawaiian Islands Wildlife Refuge.

Justification: Federal protection of this animal does not extend to the navigatable territorial waters surrounding the reefs and islands in this area. Breeding of marine turtles occurs offshore, sometimes as far out as 1/2 mile. During this time animals are very susceptible to predation by man. Because the Wildlife Refuge is the largest green turtle nesting area left in the United States, protection by the State should be afforded to these animals.

3. Protection shall be provided for green turtles (Chelonia sp.) under thirty-four (34) inches straight line carapace length within the territorial waters surrounding the main Hawaiian Islands.

Justification: Green turtles are recognized as the world's most valuable reptile owing to the many useful products obtained from their carcass. For this reason overexploitation of the resource has occurred in most areas of the world. Research has shown that this migratory animal is slow to recover from such abuses by man. The realization by governments that green turtle numbers are fast declining has led to passage of protective restrictions. Many areas have afforded total protection for green turtles. A size limitation on these animals at this time would assist juveniles in the Hawaiian population in reaching reproductive age. This would ensure a future breeding stock. In addition, the taking of small animals is unsportsmanlike and wasteful in terms of potential edible protein.

4. Restrictions on the holding and transport of live marine turtles. Special permit will be granted only for educational or scientific purposes.

Justification: Transporting live turtles for commercial purposes is often inhumane and a cause of undue suffering by a creature of the wild. Educational and scientific purposes are the only legitimate reasons for holding marine turtles in captivity since as many animals as possible should remain in the natural environment and be free to breed and reproduce.

PROPOSED PROTECTION FOR MARINE TURTLES

Prepared by George H. Balazs and emended by George H. Balazs and Frank J. Radovsky

Recognizing the fact that title to all wildlife belongs to the State in its sovereign capacity, and that the State holds this title in trust for the people of Hawaii, and that the State has a right and an obligation to protect, perpetuate and control wildlife within its boundaries, the following bill for an act relating to the protection of marine turtles is hereby proposed:

1. It shall be unlawful for any person to take, kill, possess, mutilate or in any way disturb any Leatherback (Dermochelys sp.) or Hawksbill (Eretmochelys sp.) in or from the territorial waters of the State of Hawaii, except as specified in section 7 of this act.
2. It shall be unlawful for any person to take, kill, possess, mutilate or in any way disturb any green turtle (Chelonia sp.) in or from the territorial waters of the State of Hawaii which surround the Hawaiian Islands National Wildlife Refuge, except as specified in section 7 of this act.
3. It shall be unlawful for any person to take, kill, possess, mutilate or in any way disturb any green turtle in or from the territorial waters of the State of Hawaii which surround the major islands (Hawaii, Maui, Kahoolawe, Lanai, Molokai, Oahu, Kauai and Niihau) for purpose of resale.
4. It shall be unlawful for any person to import any marine turtle or part thereof into the State of Hawaii for purpose of resale.
5. It shall be unlawful to sell any marine turtle or part thereof, including the sale or serving of turtle-derived food products in restaurants or markets or elsewhere. (Green turtles may be used as food, without sale, when legally taken as outlined in section 6 of this act).
6. It shall be unlawful for any person to take, kill, possess, mutilate or in any way disturb any green turtle in or from the territorial waters of the State of Hawaii which surround the major islands, excepting green turtles having a straight line carapace measurement of more than thirty-four (34) inches that are taken under permit from the Division of Fish and Game, tagged, and reported to the Division within a time to be specified, or except as specified in section 7 of this act.
7. It shall be unlawful for any live marine turtle to be captured or held in captivity or transported within or across the boundaries of the State except by special permit which will be granted by the Division of Fish and Game only for educational or scientific purposes. The number of animals held for such purposes by any one person or institution shall not exceed that as deemed reasonable, prudent and necessary by the Division of Fish and Game.
8. Any officer or agent authorized by the Division of Fish and Game shall have authority to execute any warrant to search for and seize any animal or animal product held in violation of sections 1 through 7 of this act. Such material shall be held pending proceedings in any court of proper jurisdiction. Upon the conviction of any person charged with a violation of section 1 through 7 of this act the animal or animal product seized shall be forfeited and either released, offered to a recognized institution for scientific or educational purposes, or destroyed.
9. Any person convicted of violating any section of this act shall be fined not more than \$500 or imprisoned not more than 6 months or both.

Sea Turtle Statistics for Hawaiian Waters

	1967		1968		1969		1970		1971	
	Pounds	Value US \$ lb	Pounds	Value US \$ lb	Pounds	Value US \$ lb	Pounds	Value US \$ lb	Pounds	Value US \$ lb
Jan	1900	610 .32	227	23 .10	*	*	883	464 .53	1625	795 .49
Feb	35	10 .29	447	41 .09	2450	147 .06	966	466 .48	769	297 .39
Mar	2550	258 .10	750	500 .67	16	10 .63	530	220 .42	3920	1702 .43
Apr	400	260 .65	1094	1094 1.00	690	*	1023	501 .49	1690	663 .39
May	*	*	244	154 .63	*	*	2070	1149 .56	1530	686 .45
June	*	*	264	264 1.00	*	*	182	182 1.00	3055	1088 .36
July	*	*	324	324 1.00	*	*	500	59 .12	440	129 .29
Aug	*	*	*	*	150	98 .65	1147	308 .27	1875	978 .52
Sept	*	*	*	*	2290	890 .39	2726	762 .28	1550	1262 .81
Oct	100	12 .12	*	*	1374	493 .36	771	264 .34	750	554 .74
Nov	22	13 .59	*	*	1474	399 .27	*	*	1330	959 .72
Dec	14	10 .71	*	*	1731	783 .45	1708	642 .38	1350	737 .55
Total	5021	1173 .23	3350	2400 .72	10175	2820 .30**	12506	5017 .40	19884	9850 .50

* Not reported

** Not including April

December 7, 1972

Bureau of Sport Fisheries and Wildlife
337 Uluniu Street
Kailua, Hawaii 96734

Attention: Mr. Kridler

Dear Mr. Kridler:

Enclosed are copies of some of the existing restriction on the taking of marine turtles which I have thus far been able to compile. Hope they will be of use to you.

After discussion with the director of HIMB, I feel that I am in a position to be able to submit a project proposal to your bureau dealing with an in-depth study of the nesting population at French Frigate Shoals. By this I mean a concentrated effort for a 3-4 week period on one of the small islands. With your cooperation I would visualize a team of two to three qualified and conscientious researchers spending the entire period recording and tagging all females that come ashore. The next season is still far enough away to permit all necessary plans to be made.

I would greatly appreciate your thoughts on this subject before I prepare a final draft of the proposal.

Sincerely,

George H. Balazs
Jr. Marine Biologist

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Enclosure

FROM: SOUTH PACIFIC ISLANDS - MARINE TURTLE RESOURCES

A report prepared for the Fisheries Development Agency Project by
H. F. Hirth, Marine Biology (Turtles) Consultant.

Food and Agriculture Organization of the United Nations

Recommendations (from pages 4 & 5) for State of Hawaii

The sale of stuffed marine turtles of all sizes should be prohibited and turtle meat and soup eliminated in hotels and restaurants.

An in-depth study should be made on one or several of the nesting atolls in the Hawaiian Leewards, during the peak nesting season. Special emphasis should be placed on the numbers nesting (i.e. after two weeks the tagged ones should be returning). The Hawaiian Leewards are probably the biggest green turtle rookeries in the United States.

A tagging project should be started on the feeding areas off Maui to determine whether immature individuals remain there throughout the year and if adults remigrate to the Leewards for breeding. Stomachs of individuals caught by local fishermen should also be analysed (Mr. Daniels could do all this if necessary financial support is given).

Cooperation between personnel in the United States Fish and Game Department and that of the United States Sport Fisheries and Wildlife, Hawaii Branch, is essential on matters concerning turtles, since the green turtles nesting in the Hawaiian Leewards (under the jurisdiction of the latter) may well be the same individuals feeding of the main Hawaiian Islands (under the jurisdiction of the former).

Regulations regarding the fishing of sea turtles (*Chelonia mydas*) in the territory of French Polynesia.

In the Session of Dec. 23, 1971.

Article 1. Fishing of sea turtles whose shell is less than 65 cm long at the longest axis is prohibited in all of the Territory of French Polynesia.

Article 2. Land capture of turtles smaller than regulation size is prohibited from Nov. 1 to January 31.

Article 3. Capture at sea of turtles smaller than regulation size is prohibited from June 1 to January 31.

Article 4. Zones of concentration of turtles are made available for fishing subject to a quota for each zone fixed by decree taken in Government council on a ~~proposal~~ *proposal* by the Chief of Fisheries services.

Article 5. Holding of live turtles for periods over 10 days is authorized only in ponds where adequate protection from sunlight has been provided.

~~XXXXXX~~ Live turtles being transported must be protected from the sun, and must not be subject to unnecessary suffering.

Article 6. Land collection of mature turtle eggs is prohibited.

Article 7. Special permits regarding capture of turtles of all sizes and collection of mature eggs may be obtained from the Chief of Fisheries for the purpose of scientific research.

Article 8. Slaughter of turtles must be done under sanitary conditions (without flies, dust or materials that are either pollutants or infectious).

Article 9. Sale of sea turtles is prohibited in all of French Polynesia.

Article 10. n Punishments

Violators will be punished according to decree No. 2792/AA of Oct. 24, 1968 for the 5th category of infraction

- a) whoever collects mature eggs on land and
- b) whoever sells whole turtles or turtle meat without authorization.

4th category for whoever

- a) has fished turtles of less than regulation size during the fishing season
- b) whoever has captured females on land prior to their having laid their eggs

3rd Category-- whoever

- a) captures turtles at times other than the lawful period

2nd

Category

- a) whoever goes against any other obligations set by this resolution

TABLE XI

Current regulations regarding the harvesting of green turtles and their eggs

Location	Regulation
Pacific Ocean and adjacent areas	
Hawaiian Leewards	complete protection for all marine turtles and eggs (Anon, 1968b; Hendrickson, 1969; Laycock, 1970).
Midway Island	protection for turtles less than 60 cm in carapace length.
Trust Territory of the Pacific	full protection for turtles and eggs on shore; and in the water for turtles with carapace length less than 61 cm (Wilson, 1969).
Kingdom of Tonga	following regulations now waiting approval by Government: complete year-around protection for eggs and for turtles with carapace length more than 87.5 cm; protection for all turtles of all sizes from 1 November to 28 February; ban on the sale or export of any turtle shell greater than 87.5 cm; complete protection for the leatherback of all sizes at all times.
Fiji Islands	same regulations as for Tonga, awaiting Government approval.
Rose Atoll, American Samoa	complete protection for turtles and eggs.
Malaysia	complete protection for nesting turtles; Government controls harvesting of eggs (about one million annually); March is closed season for eggs in Sabah (Harrisson 1950-1969; Hendrickson, 1958; de Silva, 1968, 1969b).
Queensland, Australia	full protection for all marine turtles and eggs (Bustard, 1969d).
Atlantic Ocean and adjacent areas	
Mexico	full protection for eggs; permit required to take turtles during open season; on Pacific coast closed season generally extends from 1 June through 31 October; on Gulf coast closed season extends from 1 May through 31 August.
Costa Rica	adults and eggs fully protected on nesting beaches; and protection for turtles within 4.8 km of nesting beaches (but harpooners can operate beyond this limit).
Panama	full protection for the green turtle (Myers, 1970).
Surinam	complete protection for nesting turtles and eggs on some of the major nesting beaches (see text).
French Guiana	protection for adults and eggs during May, June, July (Anon 1969i; Pritchard, 1969).
Trinidad and Tobago	protection for turtles and eggs from 1 June through 30 September.
Ascension Island	full protection for turtles and eggs.
Indian Ocean and adjacent areas	
British Indian Ocean Territory and Seychelles Islands	complete protection for turtles and eggs (but see text).



CHARLES M. BEARDEN
CHIEF OF MARINE CONSERVA
MANAGEMENT AND SERVICES

*South Carolina
from Wildlife and Marine Resources Depto*

Code § 28-901; 1942 Code § 3396; 1932 Code § 3396; 1924 (33) 1016; 1959 (51) 439.)

§ 28-902. Minimum size of terrapin.—The taking, detention, possession, purchase or sale of terrapin less than five inches in length measured on the medial line of the bottom of the shell shall be unlawful. (1952 Code § 28-902; 1942 Code § 3397; 1932 Code § 3397; 1924 (33) 1016; 1925 (34) 225; 1959 (5) 439.)

§ 28-903. Evidence from possession, etc.—The possession of terrapin of less than lawful size or during the closed season or the possession of a terrapin without having taken out a dealer's license shall be deemed prima facie evidence of guilt within the county where found in such possession and shall cast the onus of explaining such possession upon the possessor. But this section shall not apply to terrapin in possession of regular licensed terrapin farms. (1952 Code § 28-903; 1942 Code § 3398; 1932 Code § 3398; 1924 (33) 1016; 1925 (34) 225; 1959 (51) 439.)

§ 28-904. Terrapin illegally taken to be returned to water.—All terrapin taken in this State in violation of any of the provisions of the Coastal Fisheries Laws shall be contraband, and in addition to such penalty as is provided in this chapter for the person violating such provisions, the terrapin shall be returned to the public waters. (1952 Code § 28-904; 1942 Code § 3392; 1932 Code § 3392; 1924 (33) 1016; 1959 (51) 439.)

§ 28-905. Destruction or offering for sale of sea turtles or sea turtle eggs.—It shall be unlawful for any person to kill or offer for sale any sea turtle or to offer for sale, sell or destroy any sea turtle eggs. (1952 Code § 28-905 1942 Code § 3416; 1935 (39) 251; 1959 (51) 439.)

§ 28-906. Penalties.—Any person convicted of violation of the provisions of this article shall be punished as provided in § 28-761. (1959 (51) 439.)

72

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James A. Timmerman, Jr.
James A. Timmerman, Jr.
Director

Georgia - Dept. of Natural Resources

SMALL GAME AND VARMINTS Firearms for hunting small game and non-game species shall be limited to shotguns with No. 4 shot or smaller, .22 rimfire rifles, center fire rifles with bore diameter of .225 or smaller, all caliber pistols, muzzle loading firearms and long bows.

When hunting game birds or animals, shotguns must be plugged to limit them to a capacity of not more than three (3) shells in the magazine and chamber combined. The plug must be a one-piece metal or wooden plug, incapable of being removed through the loading end of the magazine.

BOWS/ARCHERY Long bows for the purpose of taking deer and turkey shall be legal during the regular hunting season and must have a minimum recognized pull of 40 pounds at 28 inches. Arrows must be broadhead type with a minimum width of 7/8 inches.

FIREARMS ON ARCHERY HUNTS It shall be illegal for any archery hunter to have in his possession any type of firearm while hunting with bow and arrow during archery season. Bows may be used during the regular firearms deer season, but hunters must abide by firearms bag limits.

The use of cross bows or compound bows for the hunting of game within this State is prohibited, except as otherwise specifically provided.

REGULATED AREAS

CLOSED AREAS All counties or parts of counties not specifically opened by law or regulation are closed to the taking of game birds and game animals.

Counties listed as being open for hunting do not include those portions of the county or counties lying within game management areas, except when such management areas are specifically open.

STATE AND FEDERAL PARKS Hunting on or the possession of firearms on any State or Federal Park is hereby prohibited.

GAME MANAGEMENT AREAS All game management areas are closed to the taking of any wildlife except during special seasons.

The possession of firearms or bows within any game management area shall be prohibited except as otherwise provided by law or regulation.

The transportation of loaded firearms in or upon motor vehicles within public game management areas is hereby prohibited.

For more information on the hunt schedule and regulations applying to Wildlife Management Areas, consult "Georgia Wildlife Management Area Regulations 1972-73" elsewhere in this booklet.

FEDERAL AREAS Regulations on Piedmont National and Blackbeard Island National Wildlife Refuges are established with the federal government and will be available from the Regional Director, Bureau of Sport Fisheries and Wildlife, 809 Peachtree and Seventh Street, Atlanta, Georgia 30323. Regulations on Fort Stewart will be set by September and will be available from the Provost Marshal, Fort Stewart, Georgia 31314.

WILDLIFE REGULATIONS

GAME ANIMALS The following animals are hereby proclaimed and declared to be game animals and are protected

except during the specified open hunting seasons: all members of the family *Alligatoridae* and *Crocodylidae*, Bear, Deer, Opossum, Rabbit, Raccoon, Sea Turtles and their eggs, and squirrel. (260-2-16 Amended)

GAME BIRDS The following birds are hereby proclaimed and declared to be game birds and are protected except during specified open hunting seasons: Turkey, Quail, Grouse, Doves, Hybrid Pheasants (*Phasianus colchicus talischensis*), Duck, Geese, Brant, Rails, Red Jungle Fowl, Gallinules, Coots, Woodcock, and Snipe. (260-2-17)

FUR BEARING ANIMALS The following animals are hereby proclaimed and declared to be fur bearing animals and are protected except during specified open trapping seasons: Mink, Otter, Muskrat, Skunk and Weasel. (260-2-18 Amended)

TOTALLY PROTECTED SPECIES Those species of wildlife which are totally protected and may not be taken at any time, by any means, except as specifically provided, include: all members of the family *Alligatoridae* and *Crocodylidae*, Bears, Cougar (*Felis concolor*), all birds of the order *Raptors* (Hawks and Eagles), and Sea Turtles and their eggs. (260-2-19 Amended)

UNPROTECTED SPECIES Those species of wildlife which are unprotected and may be taken at any time include: Armadillos, Beaver, Bobcat, Coyotes, Fox, English Sparrows and Starlings. (260-2-20 Amended)

POSSESSION, SALE OR TRANSPORTATION OF ALLIGATORS AND THEIR HIDES

No person shall buy, sell or possess any untanned hide or skin from an animal of the family *Alligatoridae* and *Crocodylidae* within this State, whether or not such hide or skin was taken within this state or elsewhere. All such hides and skins are declared to be contraband and shall be seized and disposed of as directed by the Commissioner.

No members of the family *Alligatoridae* or *Crocodylidae* shall be transported into this State from any place in which the taking of such species is prohibited. All such species are hereby declared to be contraband and shall be seized and disposed of as directed by the Commissioner. Any person found in possession of such species shall be guilty of a misdemeanor and punished as provided by law. (260-2-21 Amended)

IMPORTATION OF WILDLIFE Any person, firm or corporation desiring to import any live wildlife into this State from any point outside this State must first file with the Department of Natural Resources, Game and Fish Division an application to import such wildlife. Wildlife that the Department approves for importation into this State shall first be certified by the U. S. Department of Public Health as being disease and parasite free. The wildlife must then be held in quarantine for at least twenty (20) days. At the end of this period, wildlife shall be inspected by a wildlife biologist from the Department of Natural Resources, Game and Fish Division who shall determine the health and well being of the wildlife at that time. If such wildlife are not deemed an undesirable species, a holding permit will be issued after the above requirements are met. No wildlife shall be imported into this State by any person, firm, or corporation for release into the wild. (260-2-22 Amended)

CHAPTER 71-145
GENERAL ACTS 1971

AN ACT relating to marine turtles; amending §370.12(1)(b), Florida Statutes, as amended by chapter 70-357, Laws of Florida; providing more specific regulations concerning the possessing or taking of green turtles; redefining the area in which the taking or possessing of other marine turtles is prohibited; deleting provision for permits to capture turtles; providing penalties; providing an effective date.

Be It Enacted by the Legislature of the State of Florida:

Section 1. Paragraph (b) of subsection (1) of section 370.12, Florida Statutes, as amended by chapter 70-357, Laws of Florida, is amended to read:

(Substantial rewording of paragraph. See §370.12(1)(b), F. S., 1970 Supplement, for present text.)

370.12 Marine animals; regulation.—

(1) PROTECTION OF MARINE TURTLES, NESTS AND EGGS; PENALTY.—

(b) 1. It is unlawful for any person to take, kill, possess, mutilate, or in any way destroy any loggerhead, trunkback, leatherback, hawksbill, or ridley, or take or possess any part thereof, while such turtle is on the beaches, sand dunes, or territorial waters of the east coast of Florida from the Georgia line through and including Dade County, during the months of May, June, July, and August.

2. It is unlawful for any person at any time to take, kill, possess, mutilate, or in any way destroy any green turtle, or take or possess any part thereof, while such turtle is on the beaches, sand dunes, or territorial waters of the east coast of Florida from the Georgia line through and including Dade County.

3. It is unlawful for any person to take, kill, possess, mutilate, or in any way destroy any turtle, or take or possess any part thereof, while such turtle is on the beaches or sand dunes of the west coast of Florida between the Monroe-Collier County line and the western boundary of the state, excepting turtles in the territorial waters thereof, having a carapace measurement of more than twenty-six (26) inches.

(e) Notwithstanding the other provisions of this section, it is unlawful to capture at anytime any nursing female mammalian dolphin or her calf, or both.

(f) A conviction for a violation of this subsection shall be punishable by a fine of not more than five hundred dollars (\$500) or imprisonment for not more than six (6) months, or by both such fine and imprisonment.

Section 2. This act shall take effect upon becoming a law.

Approved by the Governor June 10, 1971.

Filed in Office Secretary of State June 10, 1971.

Connecticut - Dept. of Environmental Protection

~~Public Act No. 107~~

AN ACT PROHIBITING THE SALE OF CERTAIN WILD ANIMALS AND WILD ANIMAL PRODUCTS.

Be it enacted by the Senate and House of Representatives in General Assembly convened:

26-40b Section 1. Neither any part of the skin or body, whether raw or manufactured, of the following species of wild animals nor the animal itself may be sold or offered for sale by any individual, firm, corporation, association or partnership within the state of Connecticut after the effective date of this act: Leopard (*Panthera pardus*), Snow Leopard (*Uncia uncia*), Clouded Leopard (*Neofelis nebulosa*), Tiger (*Panthera tigris*), Cheetah (*Acinonyx jubatus*), Alligator, Gavial, Caiman or Crocodile of the Order Crocodylia, Vicuna (*Vicugna vicugna*), Red Wolf (*Canis niger*), Polar Bear (*Thalarctos maritimus*), Atlantic Hawkbill Turtle (*Eretmochelys imbricata*), Mountain Lion, sometimes called Cougar (*Felis concolor*), Jaguar (*Panthera onca*), Ocelot (*Felis pardalis*), or Margay (*Felis wiedii*).

Sec. 2. Any person who violates section 1 of this act shall be fined not more than one thousand dollars for each day of violation.

26-40c Sec. 3. Any officer or agent authorized by the state board of fisheries and game or any state police officer or any police officer of any town shall have authority to execute any warrant to search for and seize any goods, merchandise or wild animal sold or offered for sale in violation of section 1 of this act or any property or item used in connection with a violation of said section. Such goods, merchandise, wild animal or property shall be held pending proceedings in any court of proper jurisdiction. Upon the conviction of any person charged with a violation of section 1 of this act the goods, merchandise or wild animal seized in connection therewith under the provisions of this section shall be forfeited and either offered to a recognized institution for scientific or educational purposes, or destroyed.

26-40d Sec. 4. The commissioner of agriculture and natural resources may permit, under such regulations as he may promulgate pursuant to sections 4-41 to 4-50, inclusive, of the general statutes, the transfer, sale, offering for sale, or delivery of any species or subspecies of wild animal listed in section 1 of this act for zoological, educational and scientific purposes, and for the propagation of such wild animal in captivity for preservation purposes, unless such transfer, sale, offering for sale or delivery is prohibited by any federal law or regulation.

Approved May 5, 1971

Texas - Parks and Wildlife Department

providing further, that each Texas Tortoise (*Gopherus berlandieri*) taken, killed, injured, or possessed, as provided by Section 1, shall constitute a separate offense and shall be subject to the penalty provided by this Section.

SEC. 3. Injunction. Any district attorney, county attorney, sheriff or proper authorities in any county of this state, or the Director of the State Parks and Wildlife Department may institute any appropriate action or proceedings, including the use of a petition for injunction, to prevent the violation of this Act. ('67-60-R-318.)

SEA TURTLE PROTECTED

978d-1, P.C.

SECTION 1. It shall be unlawful for any person to knowingly take, kill or disturb any sea turtle or any sea turtle eggs in or from the waters of the State of Texas.

SEC. 2. Any person violating this Act shall be guilty of a misdemeanor and upon conviction shall be fined not less than Ten Dollars (\$10) nor more than Two Hundred Dollars (\$200). ('63-58-R-390.)

SEASON FOR SALT WATER TERRAPIN

957, P.C.

Whoever kills, takes or has in his possession any salt water terrapin at any time except during November, December, January and February shall be fined not less than fifty nor more than one hundred dollars. ('19-36-2-p. 208.)

UNDERWEIGHT TURTLE AND TERRAPIN

958, P.C.

Whoever sells or ships any green turtle of less than twelve pounds in weight or terrapin of less than six inches in length of under shell shall be fined not less than ten nor more than two hundred dollars. (1895-p. 173.)

ALLIGATORS PROTECTED

978j note, P.C.

SECTION 1. No person may take, catch, kill, buy, or sell, or attempt to take, catch, kill, buy, or sell, alligators or alligator hides, or may possess an alligator or its hide, in this state, except that nothing in this law shall prohibit the possession of such alligator hide in the form of a final processed and manufactured product.

SEC. 2. This Act does not prohibit the taking and possession of alligators or hides as provided by Article 913, Penal Code of Texas, 1925.

SEC. 3. Any person who shall have in his possession or control any live alligators or hides at the effective date of this Act shall have until January 1, 1970 to legally dispose of the same.

December 8, 1972

To: Dr. Alan Zeigler
From: Ronald M.K. Lau
Subject: Sea Turtles

Dear Dr. Zeigler, the sea turtles roaming the coasts of the Hawaiian chain are on the decline. I have come to this conclusion through conversations with some old time fishermen who have spent a great many years by the sea and have observed the reduction in the sightings of these creatures over the years. One of these fishermen no longer will kill or capture any and has burned his turtle net because of his feelings for these reptiles.

Some of the local people along the Keane - Hana coast hunt them by shooting them with .22 rifles from the shore and then diving after them. The so called "commercial" fishermen hunt them with scuba tanks and shoot the head of the turtle off with shark guns (shot gun cartridge at the end of a stick). And since this is illegal (to shoot them), they get around the law by cutting off the evidence (the turtle's head) before bringing it to shore. Turtles bring good money because it is scarce and, hence, greed breeds the worse in man.

Finally, I would like to add that there may not be time for a study while turtles are continued to be slaughtered. A more sensible approach would be to stop the slaughtering through fines and penalties and making the selling of the meat illegal. Then a study can be carried out and maybe if numbers of the turtles do increase the crop may be thinned. But as of present the crop is already much too thin.....

Aloha;

Ronald Lau
Ronald M.K. Lau
P.O. Box 50
Kahului, Hawaii 96732

UNIVERSITY OF HAWAII

Hawaii Institute of Marine Biology

October 3, 1972

Mr. M. R. Goodier, Managing Director
Mariculture, Ltd.
P. O. Box 645
Grand Cayman Island, British West Indies

Dear Mr. Goodier:

Thank you very much for your recent letter and accompanying literature describing Mariculture, Ltd. in the Caribbean. Unfortunately, I did not see the article you referred to and which appeared in the Dallas Times Herald. During the past 6 months several articles authored by Associated Press writers have appeared in Honolulu newspapers. These features dealt with our work on the nutritional requirements of Chelonia mydas and certain factors which may affect hatchability. Apparently the wire service distributed variations of the main story to other parts of the country. I was unaware of this fact. If you have a clipping of the Dallas article I would greatly appreciate a copy.

Any theories attributed to me concerning the potential of sea turtle culture should have been limited to several basic statements. In our opinion, the continued successful mass rearing of marine turtles (both from an economic and more importantly, a conservation-oriented point of view) can not be accomplished until: 1) the life cycle can be completed under man's control thus providing a supply of eggs without reducing wild stocks; in addition genetic selection can be carried out; 2) optimal environmental conditions can be determined and provided for the animal; and 3) the nutritive requirements of the animal can be defined at various life stages. As you are aware, very little work has been carried out and results published in any of these areas. In addition, the current policy of the I.U.C.N. Survival Service Commission regards the raising of baby sea turtles for months or years before releasing as a purely experimental procedure. In other words, it is not considered a definite conservation measure.

In spite of the problems that exist, I am nonetheless optimistic about the future and potential of marine turtles. When basic problems are solved pressure will be reduced on wild populations. I have followed with interest the progress of Mariculture, Ltd. for the past 3 years. Also, I have communicated with companies and individuals who have had first hand knowledge of past operations. I can only wish you success in your outlined goals.

Our own research has dealt primarily with the nutrition of the hatchling, although we are interested in all aspects of sea turtle biology. One of our current feeding experiments involves 150 Pacific Greens obtained at 1 day of age. We also have plans for cooperative nutrition studies in Samoa, Tahiti and the Trust Territories. We see several advantages in working with the Hawksbill (Eretmochelys imbricata)

Mr. M. R. Goodier
October 3, 1972

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and hope to enlarge our investigation of this species.

If you have occasion to visit this area please contact me at
247-6631.

Sincerely,

George H. Balazs

George H. Balazs
Animal Nutritionist

GHB:md

MARICULTURE, Ltd.

P. O. Box 645, GRAND CAYMAN ISLAND, BRITISH WEST INDIES



From the office of the General Manager MICHAEL R. GOODIER
Phone: 9-3313

Ref: MRG/CAD

28th September, 1972

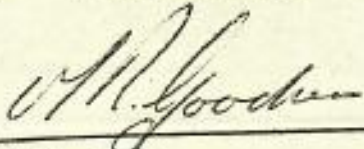
Mr. George Balazs,
The Hawaii Institute of
Marine Biology,
Hawaii.

Dear Sir,

We note from a copy of your article in the Dallas Times Herald your interest in the Atlantic Green Turtle, *Chelonia Mydas*. We would point out that your theories as regards raising the sea turtle have been put into practice by Mariculture Ltd.. We have approximately 70,000 turtles on stock at the moment and as of two months ago, a Sales programme was initiated and turtle products are as of now being sold throughout the world.

Please do not misunderstand, we are not belittling your theories, but just pointing out that what you are doing now, we did in 1967 and turtle farming is proving a viable business. For your further information a descriptive leaflet of the operation is enclosed.

Yours faithfully,
p.p. MARICULTURE LIMITED


M. R. Goodier
Managing Director

c.c. Dallas Times Herald.