

SEA TURTLES- HAWAII STATE
LEGISLATION

REG 36 ETC.

1973-1977 G.H. BALAZS FILE
PART 2 OF 2



University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O. Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

February 28, 1974

The Honorable Kenneth F. Brown
The State Senate
Committee on Ecology, Environment
and Recreation
Room 224 State Capitol
Honolulu, Hawaii 96813

Dear Senator Brown:

During hearings of your committee on 27 February 1974 relating to Senate Bill 1530 and House Bill 1635 (Conservation of Green Sea Turtles) you expressed your strong sentiments about the inability of the Hawaii Institute of Marine Biology (HIMB) to divert funds to such a seemingly worthy project as Green Sea Turtle conservation. You stated that you were "flabbergasted, amazed and astounded" (or words to that effect) - that of the millions of dollars devoted to research at the University of Hawaii, a mere \$25,000 could not be diverted for such a pressing research effort. Because we are charged with teaching, research, and public service we certainly are in accord with your views. Because you leveled this criticism at HIMB (to you the immediate and obvious culprit), I feel that a direct response is appropriate.

First, it should be recognized that the decline of the turtle populations has only come into focus within the past two - three years. We have, in fact, diverted funds for research in this area, which we identified as a crucial marine biological problem. We supported and encouraged one of our staff members, Mr. George Balazs, in his studies of the nesting populations of turtles on French Frigate Shoals. Mr. Balazs' activities are well-known to your committee. During the past two years we have devoted approximately \$4,800 in the form of salaries and other support to study the natural history of the green turtle in addition to substantial efforts in the study of turtle nutrition as part of our aquaculture effort. I regret that George Balazs did not state this during his testimony.

Perhaps more basic is the fact that we follow a planned research program that requires some time to establish and staff with specialists. We have a large component of federal funding at HIMB which requires matching state funding for specific tasks, and we only have very limited flexibility to simply shift the thrust of ongoing research into newly appearing pressing problems. Equally

The Honorable Kenneth F. Brown
Page Two
February 28, 1974

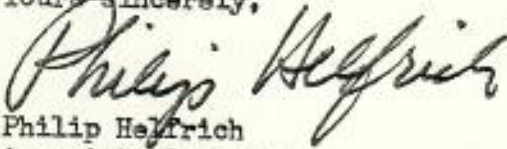
important is the fact that as we build programs we hire specialists (in fish and crustacean nutrition for example) who do not have background or the freedom to suddenly shift to another area. We have somewhat more flexibility amongst our technicians and graduate students, but here our budget has been reduced from \$433,566 in 1972-73 to \$392,104 in 1973-74 (at a time of rapidly increasing costs), and during that period 1.5 positions were vacated and frozen.

Despite these severe constraints, we have responded to pressing needs in our State that fall in the purvue of marine biology. For example, a recent outbreak of "red tide" in Pearl Harbor that threatened both the environment and public health of our citizens, resulted in our immediate reaction in an assessment of the situation and a follow-up study with our staff members.

Had the "turtle crisis" occurred six or seven years ago, the Hawaii Institute of Marine Biology would have been in a position to be much more responsive to the need for research input. Under the present fiscal constraints we have almost no flexibility, and it does not appear as though the State of Hawaii feels strongly enough about our potential role as an institution that is prepared to address itself to unexpected marine problems to support us in this area.

I trust that this clarifies our position in regard to the turtle research and similar matters. We appreciate your past support and look forward to a continuing cooperative relationship in the future.

Yours sincerely,


Philip Helfrich
Associate Director

mk

cc: W. Gorter - Chancellor, Univ. Hawaii
H. McKaughan - Director of Research, Univ. Hawaii
J. Craven - Dean, Marine Programs, Univ. Hawaii

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 appetities 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 in-
16 sure the preservation of the green sea turtle in Hawaiian waters.

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1 SECTION 3. There is appropriated out of the general revenues
 2 of the State of Hawaii a sum of \$10,000, 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 in-
 7 creasing to size of the population as may be learned.

8 SECTION 4. There is appropriated out of the general revenues of
 9 the State of Hawaii a sum of \$5,000, or so much thereof as may be
 10 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 there-
 14 by relieving the existing natural indigeneous green sea turtle of
 15 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.

21 INTRODUCED BY: Anson Cheng

22 Clarence J. Aizaki
 23 Samuel W. Nani
 24 Amis O. Lee
 25 Kenneth Lee
 R. H. Wason

Rich Medina
 Richard Garcia
 Jean King
 Gloria Sabone
 Hans J. L. Linnam

MAR 5 1973

1 Daniel K. Gibson
 2 Ted L. Munn
 3
 4 Fred L. ...
 5 Peter K. Young
 6 Jack A. Lewis
 7 Edward J. H. ...
 8 Peter de la Cruz
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 10 Jim. ...
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MAR 5 1973

HOUSE RESOLUTION

REQUESTING THAT THE PEOPLE OF HAWAII AID IN HALTING THE DECLINE OF, AND IF POSSIBLE IN THE RESTORATION OF, THE GREEN SEA TURTLE POPULATIONS WHICH FREQUENT THE WATERS ADJACENT TO THESE HAWAIIAN ISLANDS, AND REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES TO STUDY MEANS OF PROTECTING SEA TURTLES AND THE FEASIBILITY OF RAISING TURTLES COMMERCIALY AND TO REPORT ITS FINDINGS TO THE HOUSE OF REPRESENTATIVES.

WHEREAS, the green sea turtle (Chelonia species) populations which frequent the waters adjacent to the Hawaiian Islands appear to be declining; and

WHEREAS, it has been many years since any significant turtle nesting has been observed or reported on the beaches of any of the major islands in the Hawaiian chain which formerly were turtle nesting grounds; and

WHEREAS, the people of Hawaii prize this species both for its natural beauty within its own habitat and as a delectable food; and

WHEREAS, man has continually expanded his knowledge of and control over his environment but through lack of knowledge ecology has too frequently exterminated some species and endangered the survival of others; and

WHEREAS, man has learned much but has much more to learn to conserve as he should the flora and fauna with which he shares this earth in an interdependent relationship vital to his own survival; and

WHEREAS, man has devised more efficient methods and devices to aid him in gathering green turtles of the breeder pool age while grazing off their range in the waters adjacent to the Hawaiian Islands, some of which devices, even though prescribed by law, present peculiar law enforcement difficulties; and

WHEREAS, the demand for turtle meat and shells increases proportionally with the increase in the number of tourists and the number of restaurants and shops serving the tourist industry; and

WHEREAS, almost all species of sea turtles in the seas of the world including the green sea turtle are considered endangered species or nearly endangered species and many turtle populations and their nesting grounds have been totally obliterated; and

WHEREAS, an endangered species is one whose prospects for survival and reproduction are in immediate jeopardy of extinction; and

WHEREAS, those turtle populations which frequent the waters adjacent to the Hawaiian Islands may be on the verge of extinction for lack of a breeder pool of sufficient numbers; and

WHEREAS, other states, countries and sundry groups have commissioned studies of the turtle populations in their areas and have instituted programs to protect the nesting grounds from man and other predators, programs to attempt restocking via hatcheries, and programs of raising turtles for food as commercial industry; 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 be requested to commence a series of studies to determine as accurately as possible the degree to which the turtle populations which frequent the seas adjacent to the Hawaiian Island chain are threatened; and

BE IT FURTHER RESOLVED that these studies shall include consideration of the feasibility of programs to locate and protect the nesting grounds, the feasibility of instituting hatcheries, and the feasibility of raising turtles commercially to supply the appetites of the people of the State of Hawaii, and the visitor industry; and

BE IT FURTHER RESOLVED that the Department of Land and Natural Resources shall submit a report of its findings and recommendations to the legislature twenty days prior to the convening of the Regular Session of 1974; 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: Anson Chong

Clarence J. Czekajski
Dick Medina

Richard Garcia

Tom H

David Hibbard

R. H. Wason

Ed M...
C. J. ...

Peter de la Cruz

John L. ...

Steve ...

Alan ...

Charles T. ...

John King

Abria ...

Chris ...

Kenneth ...

Patsy K. Young

John A. ...

Richard S. H. ...

Ann ...

...
Tom J. ...

Red ...
Thomas ...

(To be made one and twelve copies)

THE SENATE

LEGISLATURE, 19 75

STATE OF HAWAII

S.B. NO. 548

A BILL FOR AN ACT

MAKING APPROPRIATIONS FOR A MANAGEMENT STUDY OF THE GREEN SEA
TURTLE RESOURCE IN THE HAWAIIAN ARCHIPELAGO.

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

1 SECTION 1. The legislature finds that the population of
2 green sea turtles (*Chelonia* species) native to the Hawaiian
3 Archipelago has declined significantly over the past century,
4 and that such decline is a matter worthy of this body's concern.
5 The reasons for the population's decline include exploitation
6 for meat and other products as well as the disturbance and
7 destruction of habitat. This situation is not unique to Hawaii
8 as the majority of the distinct populations of the green turtle
9 in other areas of the world are either extinct, threatened, or
10 rapidly declining. The legislature notes that the green sea
11 turtle in Hawaii is unique in that it comprises the only remaining
12 population in the United States, and the only one in existence
13 which is under a single government's jurisdiction at both the
14 feeding and breeding grounds. (Further, it is noted that the
15 green turtle has the potential for providing a renewable source
16 of protein to the people of Hawaii who have been traditionally
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1 dependent on the sea for supplemental food. However, in order
 2 to successfully utilize this valuable resource on a long term
 3 basis, sufficient biological knowledge must be available to
 4 ensure the wise management and conservation of the population.
 5 The purposes of this Act therefore are to provide appropriations
 6 for a three-year management study of the green sea turtle in the
 7 Hawaiian Archipelago. The study will include an inventory of the
 8 population, a determination of priorities necessary for wise
 9 management and conservation, and the extent of utilization
 10 possible to ensure a long term supplemental food supply.

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 three-year management study of the green
 14 sea turtle in the Hawaiian Archipelago. The sum appropriated
 15 shall be expended by the Hawaii Institute of Marine Biology of
 16 the University of Hawaii for the purposes of this Act.

17 SECTION 3. This Act shall take effect upon its approval.
 18

19 INTRODUCED BY:

Jean King
Angus C. Lee
Richardson
Patsy K. Young
Henry Takahashi

Manuoa J. J. ...
John J. ...
Ed ...
...

...
George W. ...
Stanley ...
...

1/17/75



Carroll's letter

(To be made one and ten copies.)

HOUSE OF REPRESENTATIVES
EIGHTH LEGISLATURE, 1975
STATE OF HAWAII

H.C.R. NO. 16

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, Hawaii Revised Statutes; 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 Eighth Legislature of the State of Hawaii, Regular Session of 1975, 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 amend the rules adopted pursuant to section 190-3 of the Hawaii Revised Statutes to limit the sale and taking of any green sea turtle less than twenty-four inches or more than thirty-six inches; and

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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. Canall

JAN 21 1975



University of Hawaii at Manoa

Environmental Center
Crawford 317 • 2550 Campus Road
Honolulu, Hawaii 96822
Telephone (808) 948-7361

Office of the Director

March 1, 1977

MEMORANDUM

TO: H. Banner, Zoology, Edm 261 D. Stroup, Sea Grant, Spal 255
✓ G. Balaz, HIMB
T. Smith, Zoology, Edm 163
R. Linsky, Sea Grant, Spal 255

FROM: Doak C. Cox

RE: SB 855 Relating to Fishing

The attached bills/resolutions are being considered by the Environmental Center for review. Because they apply to your particular fields of interest and expertise, we would appreciate your evaluation of their content and purpose, and your guidance in preparing a review if a hearing is scheduled. Depending on your response we will coordinate the reviews when a hearing is scheduled. Please return this memo immediately.

No Env. Center review is recommended.

Env. Center review is recommended.

I will assist in the review of _____

I recommend the following people to assist in the review:

_____	_____
Name	Bill/Resolution
_____	_____
Name	Bill/Resolution
_____	_____
Name	Bill/Resolution

If you are limited by time, we would appreciate it if you would refer this to someone who would be able to assist in the review. Thank you for your help.

A BILL FOR AN ACT

RELATING TO FISHING.

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

1 SECTION 1. Section 188-25, Hawaii Revised Statutes, is
2 amended to read as follows:

3 "Sec. 188-25 Fishing with firearms, spears. (a) It shall
4 be unlawful for any person to pursue, take or kill any turtle,
5 crustacean, mollusk, aquatic mammal, or fish other than sharks
6 in the waters of the State with firearms as defined in section
7 134-1 [or to pursue, take or kill any crustacean with a spear].

8 (b) It shall be unlawful for any person below the age of
9 fourteen years who is not accompanied by an adult to use a
10 spear-gun in the waters of the State.

11 [(c) It shall be unlawful for any person to sell or offer
12 to sell any turtle or fish other than sharks taken or killed
13 with a spear, provided that turtles or fish may be lawfully taken
14 or killed with a spear for home consumption only.]

15 [(d)] (c) Any turtle, crustacean, mollusk, aquatic mammal,
16 or fish taken[,] or killed [or offered for sale] in violation
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1 of this section shall be confiscated and offered as evidence.
 2 For the purpose of this section, 'spear-gun' shall mean any
 3 artificial device used to propel a spear or spears by means of
 4 compressed air or gas, elastic, spring, or any motive power.
 5 Whosoever violates this section shall be fined not less than
 6 \$10 nor more than \$50, or imprisoned not less than ten nor more
 7 than twenty days, or both.

8 [(e)] (d) It shall be unlawful for any person to take, by
 9 the use of spears, any fish which is smaller than the minimum
 10 size for the fish as specified in section 188-40 and any person
 11 violating this provision shall be punished as provided in [the
 12 preceding paragraph] subsection (c)."

13 SECTION 2. Statutory material to be repealed is bracketed.
 14 New material is underscored. In printing this Act, the revisor
 15 of statutes need not include the brackets, the bracketed material,
 16 or the underscoring.

17 SECTION 3. This Act shall take effect upon its approval.
 18

19 INTRODUCED BY: Joe Kuroda
 20 Stanley A. Hase
 21 Henry Takami
 22 Donald King
 23 Richard A. H. Day
 24
 25

2/22/77
 SMA 547-193

LIBRARY OF
GEORGE H. BALAZS

Testimony of Eugene Kridler Presented before the Hawaii State Senate
Committee on Ecology, Environment and Recreation on Senate Bill No. 548
"Making Appropriations for a Management Study of the Green Sea Turtle
Resource in the Hawaiian Archipelago". February 25, 1975

My name is Eugene Kridler. I am the endangered species coordinator in Hawaii and the Pacific Islands for the U.S. Fish and Wildlife Service. Because of the lack of sufficient time to receive official approval from my agency for this testimony, I am representing myself before this committee as a private citizen and resident of the State of Hawaii. I do, feel, however, that my agency would support my views.

What expertise I have about the green sea turtle has been obtained as a result of my work with endangered species, mainly in Hawaii, and with the green turtle when I was the refuge manager for the Hawaiian Islands National Wildlife Refuge where this animal nests and otherwise occurs at some times of the year. This refuge consists of a series of very small islands, atolls and reefs stretching over some 800 miles of ocean between Niihau and Midway.

The green sea turtle is considered to be one of the most valuable reptiles in the world. It is much prized as a source of protein for many of the peoples of the tropical world and as a gourmet item by others.

In many areas of the world there have been serious declines and even complete losses of populations of these animals where they were formerly abundant. The causes for the declines and losses are attributable almost completely to overexploitation by man. Expanding human populations with an increasing demand for turtles as food, use of its shell as a curio item for tourists, destruction of its nesting areas, harassment by man and

other animals (especially on its nesting grounds) plus more efficient means to harvest and market them have all contributed to the declines and losses. Not only have turtles suffered, Man himself has lost in some cases through loss of a source of protein. In other cases, such has occurred in several places among the islands of the Caribbean, destruction of a resource which people depended upon heavily for a living has resulted in a serious disruption of their economies and life styles.

The great decline in world populations has been the cause for considerable concern by natural resource managers and conservationists. The prestigious International Union for the Conservation of Nature lists the green turtle as a depleted species. The Secretary of the Interior has been petitioned to declare this species as being threatened with extinction.

A serious decline in turtle populations has occurred also in Hawaii. There is genral agreement among biologists and other people who are knowledgeable about the animal that turtle populations are nowhere as abundant as they once were and that steps would have to be taken soon to better conserve and manage them. Sound management must be based on facts. Facts can be obtained only through good research. Research can take place only if adequately funded.

Information must be obtained on population sizes, population trends, recruitment of young, migrations and movements, nesting success, hatchling survival, mortality factos (including harvest), food and habitat requirements, the presence, abundance and requirements of the food organisms themselves, feeding areas for both young and old and the degree of the human take. There are many other factors which might affect the welfare of this species.

Some research has taken place on the refuge during recent years. This has been limited mainly to tagging animals there to determine their movements, conducting censuses (especially during the few times of the year that transportation was available to get to some of the more remote units and nesting studies at the French Frigate Shoals unit to get some handle on the probable nesting population and nesting success.

Tagging studies have revealed that animals found on the refuge also occur, probably most of the time, in the waters around our main inhabited islands. No tagged animals so far have been captured or found from any other area other than in the Hawaiian Islands. This strongly indicates that the state population is confined entirely to the state. Thus, whether or not the green sea turtle remains one of our renewable natural resources in Hawaii will depend entirely on how it is managed on a statewide basis. It can't be managed on the refuge alone.

Research is badly needed on a statewide basis, especially around the main islands. There is a dearth of information about the turtle here. Data must be gathered here food and habitat requirements, the location and condition of important feeding and resting areas, population sizes and age compositions, and the degree of the human harvest. All this needs to be tied in with information gathered from the Leewards, including the refuge, and data analyzed so that resource managers can best manage this resource for the best interests of the people of Hawaii and the nation as a whole.

I strongly urge that members of this committee approve this bill.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
BUREAU OF SPORT FISHERIES AND WILDLIFE

Division of Wildlife Refuges
337 Ulukou Street
Honolulu, HI 96734

September 20, 1973

Mr. Michio Taketa, Director
Hawaii Division of Fish and Game
1179 Fuschibowl Street
Honolulu, Hawaii 96813

Dear Mr. Taketa:

Thank you very much for the opportunity to comment upon the proposed regulation concerning the protection of marine turtle in Hawaii.

As refuge manager of the Hawaiian Islands National Wildlife Refuge located in the Northwestern (Leeward) Hawaiian Islands, I have a keen interest in the welfare of this animal because it is a very important part of the refuge fauna and also because of our research on it there.

While researching the literature on this very valuable animal, we find numerous references to the great decline and even loss of populations in many areas where it was formerly abundant. Florida, the Bahamas, the Panama and the eastern part of the Indo-Pacific region are some of the areas mentioned. Causes of loss and declines are attributed to the over-exploitation by humans. Expanding human populations, the increasing market for its flesh and eggs now in certain tourist oriented areas for its shell as an object of curio, destruction of nesting habitats, continual disturbance on its nesting beaches and more efficient means now of transporting them to market have all taken a serious toll.

The International Union for the Conservation of Nature, the prestigious worldwide conservation organization lists the green sea turtle as a depleted species in its book of threatened species of the world. The Hawksbill and Leatherback are listed as endangered. (IUCN Red Data Book, Vol. 3, 1968). The Endangered Species Conservation Act of 1969 (16 U.S.C. 668 cc) and 50 C.F.R. 17) prohibit the importation into the United States of any Hawksbill or Leatherback turtle or any part thereof whether or not in a manufactured state because of their status as endangered. Although not yet listed as "endangered", this animal is

listed as "threatened" (one whose status must be carefully watched by the U. S. Department of Interior (Threatened Wildlife of the United States, 1973, p. 92). The Hawksbill and Leatherback will be added to this list as endangered because of their known presence in Hawaiian waters.

Formerly abundant as a nesting entity in Florida, it is now in a very precarious condition there. Dr. Frank Lund of the U. S. National Museum, who has conducted extensive research of this turtle in the eastern United States, states that the east coast stocks are almost insignificant in comparison with those of the Hawaiian Islands. He estimates at the most, 50 females nesting there each year - or about 125 mature females in the east coast population.

Among biologists and people knowledgeable about turtles in Hawaii, there seems to be general agreement that our Hawaiian populations are not as abundant as they once were, and steps must be taken to more intensively protect and manage them.

Since 1964, refuge personnel have tagged about 300 animals, mostly adults, on the wildlife refuge for basic life history studies and to determine the movements of these turtles. Recovery reports to date show that populations inhabiting and nesting on the refuge are the same as those found in other periods during the year in the waters of the main Hawaiian Islands. Recoveries have been received from Konaui, Oahu, Maui, Molokai and Hawaii. The latter over 600 airline miles from French Frigate Shoals where it was tagged. Data also indicate that our green turtles may be confined to the Hawaiian Archipelago and that French Frigate Shoals is the most important nesting area for the green sea turtle in the nation.

In addition to tagging, data are being collected on the weights and measurements. Of a sample of 100 tagged at French Frigate Shoals during 1971-72, the average straight line measurement of the carapace was 35 inches. About 30 were 36 inches or better. The average weight was 230 pounds.

To get more data on the possible size of the breeding and nesting population in Hawaii, the Hawaii Institute of Marine Biology in cooperation with the U. S. Bureau of Sport Fisheries and Wildlife is conducting research on the turtle on the refuge at French Frigate Shoals. The principal investigator, Mr. George Balazs, spent two months there this past summer. I understand that he will comment briefly on his findings at the public hearing.

I concur in the major provisions of Regulation 36; however, I would like to see the following incorporated:

1. Add the words "disturb" after the word "possess" and the words "and nests" after the word "eggs" in Section No. 1. Any animal trying to nest on any beach of the main islands should be given every opportunity to be successful in this endeavor.
2. Prohibit the taking of all marine turtles in the waters under the jurisdiction of the State of Hawaii in the Northwestern Hawaiian Islands. This sentence to be added to Section No. 2.

Adoption of regulation 36 will be a long way in being better able to protect and manage this valuable renewable resource, and I support the Hawaii Division of Fish and Game in these efforts.

Sincerely,

Eugene Kridlar

Eugene Kridlar

cc: Regional Director, Portland, Oregon


University of Hawaii at Manoa

Marine Programs

MEMORANDUM

February 20, 1975

to: George Balazs

From: John P. Craven 
(Marine Affairs Coordinator)

Subj: S.B. No. 548, A bill for an act making appropriations for a management study of the green sea turtle resource in the Hawaiian Archipelago

Marine Affairs Coordinator would be interested in a program which resulted in artificial breeding of the green sea turtle for purposes of repopulation of the wild and aquaculture for the market at such times as the law allows.

cc
MAC Office (Sue Rutka)

JPC/lm



STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
P. O. BOX 621
HONOLULU, HAWAII 96809

February 25, 1975

MEMORANDUM

TO: Honorable Jean S. King, Chairperson
Senate Committee on Ecology, Environment and Recreation

FROM: Christopher Cobb, Chairman and Member
Board of Land and Natural Resources

SUBJECT: Senate Bill No. 548 -- Making Appropriations for a Management Study
of the Green Sea Turtle Resource in the Hawaiian Archipelago.

The purpose of this bill is to appropriate out of the general revenues of the State of Hawaii the sum of \$50,000 to be expended by the Hawaii Institute of Marine Biology of the University of Hawaii for a three-year management study of the green sea turtle in the Hawaiian Archipelago.

The green sea turtle is the most familiar and numerous of the marine turtles throughout the world, and has been historically utilized as food in many countries. However, due to increasing harvest, scientists are concerned about its apparent decline and have recently suggested that the green sea turtle be placed on the endangered species list. Here in Hawaii, the Board of Land and Natural Resources, cognizant of the increasing need for protection of this species, recently adopted a regulation to provide for the protection of the population of marine turtles in Hawaiian waters.

Although the green sea turtle is one of the world's most important reptiles from an economic standpoint, there is a great lack of scientific knowledge about this species throughout its range which includes the waters of the State. One of the reasons for this dearth of knowledge is that the turtle is difficult to study because of its migratory behavior that involves extensive trips across the open ocean, apparently for reproduction and feeding. Based on the best information available, very little nesting occurs at present on the beaches of the main Hawaiian Islands and most of the nesting takes place in the North-western Hawaiian Islands, particularly within the Hawaiian Islands National Wildlife Refuge that is administered by the United States Department of the Interior. Here, turtles and their eggs are legally protected and unauthorized

Honorable Jean S. King
February 25, 1975
Page Two

entry is prohibited. Through evidence from tagging studies and surveys, it is the general consensus of turtle authorities here, that the Northwestern Islands, principally French Frigate Shoals, are used as nesting sites and the waters surrounding the main Hawaiian Islands are used as feeding grounds.

With the exception of the University of Hawaii's limited studies on reproduction and other biological aspects of the green sea turtle conducted on French Frigate Shoals with the support of the U.S. Fish and Wildlife Service, there has been no specialized effort to obtain biological data on the Hawaiian population of the green sea turtle. Inasmuch as scientific knowledge is lacking concerning the biology, movements, habits and population dynamics of the Hawaiian green sea turtle population, there is a definite need for a management study of our geographically unique Hawaiian green sea turtle population.

This Department, therefore, concurs with the purpose and intent of Senate Bill No. 548.

Honolulu, Hawaii
March 10, 1975

The Honorable John T. Ushijima
President of the Senate
Eighth State Legislature
Regular Session of 1975
State of Hawaii

Sir:

RE: S.B. No. 548

Your Committee on Ecology, Environment and Recreation to which was referred S.B. No. 548 entitled:

"A BILL FOR AN ACT MAKING APPROPRIATIONS FOR A MANAGEMENT STUDY OF THE GREEN SEA TURTLE RESOURCE IN THE HAWAIIAN ARCHIPELAGO",

begs leave to report as follows:

The purpose of this bill is to appropriate \$50,000 for a three-year management study of the green sea turtle in the Hawaiian Archipelago. The sum appropriated shall be expended by the Hawaii Institute of Marine Biology of the University of Hawaii.

Your Committee finds that the Board of Land and Natural Resources, cognizant of the increasing need for protection of this species, recently adopted a regulation to provide for the protection of the population of marine turtles in Hawaiian waters.

Although the green sea turtle is one of the world's most important reptiles from an economic standpoint, there is a great lack of scientific knowledge about this species. In many areas of the world their population has seriously declined and, in some instances, lost entirely.

The Hawaiian Archipelago is a good area in which to study the green sea turtle, because their entire migratory pattern remains within the waters of the archipelago.

Your Committee on Ecology, Environment and Recreation is in accord with the intent and purpose of S.B. No. 548 and recommends that it pass Second Reading and be referred to the Committee on Higher Education.

Respectfully submitted,


JEAN S. KING, Chairman

Mary George
MARY GEORGE, Member

Frederick W. Rohlfing
FREDERICK W. ROHLFING, Member

John J. Huerten
JOHN J. HUERTEN, Vice-Chairman

Donald D. H. Ching
DONALD D. H. CHING, Member

Anson Chong
ANSON CHONG, Member

Stanley I. Hara
STANLEY I. HARA, Member

Donald S. Wishimura
DONALD S. WISHIMURA, Member

Speaker
JAMES H. WAKATSUKI
Vice Speaker
RICHARD GARCIA
Assistant Vice Speaker
TED YAP
Majority Leader
CHARLES T. USHJIMA
Majority Floor Leader
ROBERT KIMURA
Assistant Majority Leaders
STEVE COBB
DANIEL J. KIHANO
OLIVER LUNASCO
NORMAN MIZUGUCHI

HOUSE OF REPRESENTATIVES
THE EIGHTH LEGISLATURE

STATE OF HAWAII
STATE CAPITOL
HONOLULU, HAWAII 96813

February 10, 1975



First District
JACK K. SUWA
Second District
STANLEY H. ROHRIG
HERBERT A. SEGAWA
Third District
YOSHITO TAKAMINE
Fourth District
MINORU INABA
Fifth District
ALVIN T. AMARAL
GERALD K. MACHIDA
Sixth District
RONALD Y. KONDO
VELMA M. SANTOS
Seventh District
DONNA R. IKEDA
W. BUDDY SOARES
Eighth District
STEVE COBB
JACK LARSEN
Ninth District
DAN S. HAKODA
TED T. MORIOKA
Tenth District
KEN KIYABU
LISA NAITO
Eleventh District
JOHN S. CARROLL
KINAU BOYD KAMALII
Twelfth District
CLARENCE Y. AKIZAKI
CARL T. TAKAMURA
Thirteenth District
NEIL ABERCROMBIE
HIRAM L. FONG, JR.
CHARLES T. USHJIMA
Fourteenth District
RUSSELL BLAIR
KATHLEEN STANLEY
Fifteenth District
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RICHARD IKE SUTTON
Sixteenth District
AKIRA SAKIMA
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RICHARD GARCIA
KENNETH LEE
Eighteenth District
MITSUO UECHI
JAMES H. WAKATSUKI
Nineteenth District
BENJAMIN J. CAYETANO
NORMAN MIZUGUCHI
Twentieth District
DANIEL J. KIHANO
MITSUO SHITO
Twenty-First District
RICHARD C. S. HO
HENRY HAALILIO PETERS
Twenty-Second District
OLIVER LUNASCO
HOWARD K. ODA
Twenty-Third District
GEORGE W. CLARKE
Twenty-Fourth District
RALPH K. AJIFU
FAITH P. EVANS
Twenty-Fifth District
JOHN J. MEDEIROS
ANDREW K. POEPOE
Twenty-Sixth District
JANN L. YUEN
Twenty-Seventh District
RICHARD A. KAWAKAMI
TONY T. KUNIMURA
DENNIS R. YAMADA

Mr. George Balazs
Hawaii Institute of Marine Biology
P.O. Box 1346
Kaneohe, HI 96744

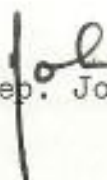
Dear George,

I certainly appreciate your comments regarding the turtle size restrictions. I am sorry that I misunderstood your position. I will ask Representative Richard Kawakami, chairman of the committee to which my resolution was referred, to kill that resolution in committee.

I have introduced a bill asking for appropriations for a research management study which is to include an inventory of the green sea turtles and a program to insure their preservation. I will be introducing a moratorium bill shortly.

I hope this will help to straighten things out. If you have any other comments, please give me a call.

Very truly yours,


Rep. John S. Carroll

JSC:em

University of Hawaii at Manoa

February 6, 1975

MEMORANDUM

John- Attached is a copy of my letter that was left on your boat last week. Perhaps you did not receive it as confusion still apparently exists. Some people now think that I support a change in the size restriction. I am firmly convinced that a study must first be conducted in order to justify any change that would result in increased exploitation, such as you propose. I therefore am in full agreement with the present regulation (F&G 36). Any attempt to make premature changes could only result in confusion among the general public, the very people we are attempting to educate with respect to conservation.

Why not introduce a Moratorium Bill such as during previous sessions? It may not have all the hope in the world of passing, but the resulting publicity would show that there are still people such as yourself that want to positively ensure the perpetuation of our turtle population for future generations of Hawaiians.

Mahalo,

George H. Balazs

January 30, 1975

UNIVERSITY OF HAWAII
Hawaii Institute of Marine Biology
Coconut Island • P. O. Box 1346 • Kaneohe, Hawaii 96744

Representative John Carroll
State Capitol
Honolulu- 96813

Dear John:

With reference to your January 29th letter, as I previously indicated the existing turtle size restriction is, in my opinion, presently best suited to Hawaii's particular situation. Data supporting this rationale have been presented at various hearings on a number of occasions. Perhaps I should point out that no one method of marine turtle protection can be applied to all areas and populations. The practice of protecting the larger, mature turtles would seem to work best for those localities that have nesting beaches in inhabited areas, hence an abundance of big turtles at certain times of the year. Any program of wildlife management and conservation seeks to protect some segment of the population from exploitation. As you are aware, in many cases other conditions are applied such as season of catch, location, sex, etc. Based on the information I have thus far accumulated, the present regulation is necessary and, hopefully, adequate. You will recall that my original intent (along with yours) was to obtain a complete moratorium. The failure of your previous "turtle moratorium bills" to pass demonstrated the political impossibility of such a proposition.

I am, of course, now quite surprised to hear that you are contemplating legislation that would completely alter the protective regulation that has been so hard-won. Indeed, an alteration that would expose a significant and vital portion of our remaining turtle population to hunting. I strongly urge you to resist taking this step that would surely result in adversity to Hawaii's green turtle. One of the primary objectives of the turtle management study which I outlined for you in draft form was to determine the extent of utilization possible without inflicting further harm to the population. Without the results of such a study, there can be no justification for increased exploitation. I certainly hope that we can be in agreement on this point so that constructive legislative action relating to a study can be brought about.

With best regards,

George H. Balazs
Jr. Marine Biologist

Wed Feb 27 conference room 5
2 P.M. 15 copies

HB 1635 HD 2 1973
SB 15030-74

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 sanctions 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. Poeoe
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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(To be made one and twelve copies)

THE SENATE

SEVENTH..... LEGISLATURE, 19 74.

STATE OF HAWAII

S.B. NO. 1530-74

A BILL FOR AN ACT

RELATING TO THE PRESERVATION OF GREEN SEA TURTLES.

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

1 SECTION 1. Chapter 188, Hawaii Revised Statutes, is amended
2 by adding a new section to be appropriately designated and to
3 read as follows:

4 "Sec. 188- Green sea turtle protected. It shall be
5 unlawful for any person to molest, catch, take, kill, or possess
6 the green sea turtle (Chelonia species) in all the waters under
7 the jurisdiction of the State. The department of land and
8 natural resources may adopt rules to effectuate the purpose of
9 this section.

10 The possession of a green sea turtle shall be prima facie
11 evidence of the violation of this section.

12 Any person violating this section shall be guilty of a petty
13 misdemeanor."

14 SECTION 2. New statutory material is underscored. In
15 printing this Act, the revisor of statutes need not include the
16 underscoring.

17

18

SECTION 3. This Act shall take effect upon its approval.

INTRODUCED BY:

Marion Attery
Sierra K. Minkley

K. J. Brown

John F. Wilson

Fred Lohf

Donald Ching

1/28/74

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.

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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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University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1348 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

House of Representatives
Seventh Legislature, 1974
State of Hawaii

SUPPORTING STATEMENT FOR HBL635 BY DR. JOHN E. BARDACH, DIRECTOR,
HAWAII INSTITUTE OF MARINE BIOLOGY, DEPARTMENTS OF ZOOLOGY AND
OCEANOGRAPHY, UNIVERSITY OF HAWAII, HONOLULU, HAWAII.

February 26, 1974

This is to state that I have been engaged for the last 20 years in tropical biological research in the Pacific Ocean, the Caribbean Sea and the Indian Ocean. It is further to state that I am conversant with the present status of research and information on marine turtles.

These animals occur in a substantial number of places in the tropical seas in some of which they are presently endangered by over exploitation and the destruction of their natural habitats. Inasmuch as sea turtles, especially the green sea turtle, occurs in the Hawaiian Archipelago and inasmuch as the Hawaiian Archipelago may be one of the sites where the turtles are presently endangered, it is of utmost importance that a base survey on these animals be undertaken now.

I further wish to state, realizing the importance of sea turtle conservation and the possible and eventual rearing for and in Hawaii for the replenishment of dwindling natural stock, that as Director of the Hawaii Institute of Marine Biology, the best equipped entity in Hawaii for carrying out such programs, I will put the scientific and technical means of Hawaii Institute of Marine Biology at the disposal of programs that may be enacted as a consequence of the passing of HBL635.

I am fully in accord and wholeheartedly support and approve HBL635 in intent and content.

TESTIMONY BY LINDA BALAZS IN FAVOR OF HB 1635

MARCH 28, 1973

My name is Linda Balazs and I would like to speak on behalf of House Bill No. 1635. We have come to a time in the history of the Hawaiian Islands and to a time in the history of the world when we are aware of the difficulties many species are having in order to survive in this age of man's soaring population and advanced technology. It is fitting that this same man with his technological skills should be instrumental in saving the species that are left today. Although many species are beyond the help of those of us who care, the sea turtle in our Hawaiian Islands has a great deal of hope if only we will act now.

The general public is unaware of the sea turtle's adversity. They continue to purchase turtle steak in restaurants, jewelry made from the shell, and stuffed turtles in curio shops without realizing that they may possibly be contributing to the extinction of these animals. It is time to exercise compassion and intelligence so we may save these valuable and beautiful creatures as a benefit to the people of Hawaii and as a benefit to people everywhere.

It is my hope that you will aid in the passage of this bill which will provide the research that may very well mean the survival and population increase of sea turtles in Hawaii.

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 487-5511

13 February 1974

Director
Bureau of Sport Fisheries & Wildlife
U.S. Department of the Interior
Washington, D.C. 20240

Dear Sir,

I am writing in regard to the 26 December 1973 proposed amendment adding the Green Sea Turtle (*Chelonia mydas*) to "The U.S. List of Endangered Foreign Fish and Wildlife."

(I am not personally familiar with the present status of the second species--Loggerhead Turtle, *Caretta caretta*--proposed for inclusion on the list, so forgo comment on it.)

I would strongly urge that the Green Sea Turtle be placed on the Foreign Endangered Species List. Also, unless the present "Foreign" and "Native" Endangered Species Lists are to be soon merged into a single list, I would also urge inclusion of the Green Sea Turtle on the Native Endangered Species List.

As material of possible interest in connection with the Hawaii population of the Green Sea Turtle--and its apparently quite precarious present status--I have enclosed here a copy of my testimony before a Hawaii State Legislative Committee investigating means of preserving our Hawaiian Green Sea Turtles by State legislative means.

(The research management study plan mentioned in my testimony is relatively immaterial to the present issue of placing the turtle on the U.S. Endangered Species List--the point is that prompt protection must be given to the Green Sea Turtle in Hawaiian waters, or there will not be any turtle population left to manage !!)

Thank you very much for this opportunity to present my opinion on this matter. I hope the Green Sea Turtle will finally become fully protected by soon being approved for inclusion on the Endangered Species List--it can always be removed from the list if and when its population numbers increase, but it will be a little too late to add it just after it has disappeared.

May I wish you the continued best of fortune in all of your most important conservation work ?

Sincerely,

Bernice P. Bishop

Alan C. Ziegler, PhD.
Head, Division of Vertebrate Zoology

encl.

BERNICE P. BISHOP MUSEUM

P. O. Box 6037, Honolulu, Hawaii 96818 • Telephone 487-5511

DATE: 19 March 1975

TO: House Committee on Parks, Fish and Game; Richard H. Wasei, Chairman.
FROM: Alan C. Ziegler, Vertebrate Zoologist, Bishop Museum.
SUBJECT: H.B. 4635 and H.R. 41: RELATING TO PRESERVATION AND STUDY OF THE HAWAIIAN GREEN SEA TURTLE.

I would like to present this testimony in full support of this Bill and Resolution for the preservation and proposed research management study of the Hawaiian Green Sea Turtle.

For over a thousand years this giant marine reptile played an important role in the ancient Hawaiian cultural heritage of maximum utilization of all available ocean resources. The turtle meat was, of course, always essential to supplement the normally protein-poor island diet. But, also, the "tortoise-shell" plates covering the bony shell provided a unique plastic material which was fashioned into jewelry for Hawaiian royalty, as well as into more utilitarian fish hooks, hand saws, and other necessary items such as mesh-spacers for ensuring uniform mesh size in manufacturing fish nets. Even the flat pieces of bone from the shell itself were chipped and ground into a particular type of chisel or adz.

Today, this same Green Sea Turtle still furnishes a source of food for many of our citizens in outlying areas of the Islands who often have to rely upon a subsistence form of fishing and shore-harvesting to supplement their meager incomes.

However, in the past few decades, taking of large numbers of this turtle by motorized vessels incidental to other commercial fishing operations in the Hawaiian Islands has been carried on with no limitation whatsoever as to animal size, season, or area. In contrast to the rather small numbers of turtles taken from relatively limited areas in bygone times, these present-day widespread and indiscriminate commercial operations may well be rapidly reducing the Hawaiian Green Sea Turtle population to a critical minimum population size--a population level at which the few remaining turtles are unable to keep up normal yearly replacement, and must inevitably begin the tragic journey down the one-way road to extinction.

The problem is that unless a research management study such as that proposed in the present Bill can be approved and funded very soon through the legislative initiative of your Committee, we will never know just how many turtles can continue to be taken yearly by these intensive commercial operations in Hawaiian waters without wiping out not only the species but, obviously, also the entire local turtle-fishing industry itself. And, if we here today do allow the Green Sea Turtle to die, still another portion of Hawaii's unique natural and cultural heritage will have been needlessly destroyed by the uncontrolled actions of modern civilization.

Thus, I certainly hope this Committee will care to act favorably toward the speedy passage of this present Legislation in order to prevent the Hawaiian Green Sea Turtle from joining the long list of other sea and land animals that have already been lost to Man's use forever; in most cases simply because of a past lack of foresight in providing an adequate research management plan while there was still time to save the species.

May I thank you very much for this opportunity to address the Parks, Fish and Game Management Committee today--and wish all of you the continued best of fortune in your various endeavors !

Respectfully submitted,

Bernice P. Bishop

TESTIMONY BY GEORGE H. BALAZS, HAWAII INSTITUTE OF MARINE BIOLOGY,
UNIVERSITY OF HAWAII, CONCERNING RESEARCH AND PRESERVATION OF SEA
TURTLES IN HAWAIIAN WATERS.

March 19, 1973

In a recent issue of Audubon Magazine, Dr. Archie Carr, the world's foremost authority on sea turtles, has stated (4) that

"Today the plight of sea turtles is widely known, and efforts to learn more about them and slow their decline are in progress almost wherever they occur. (This) concern was dangerously slow in coming."

Unfortunately for Hawaii, it appears as though the plight of our sea turtles is not widely known, and at present little effort is underway to learn more about them so that we may slow their decline. Subjective observations by numerous local residents seem to indicate that the number of sea turtles in our waters has decreased noticeably in recent years. Hawaii State Fish and Game Division records show that the commercial exploitation of these salt water reptiles has increased drastically over the past 9 years. A low of 380 lb was reported in 1963 while a record high of 25,583 lb was reported in 1972. A large portion of this commercial catch now enters the tourist industry to be sold as turtle steak. 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 additional animals are taken each year for home use.

Can our population of sea turtles continue to sustain such large harvests and still remain viable? Will sea turtles gradually vanish from our islands' waters as they have in many other areas of the world? Although turtle nesting beaches in the Northwestern Hawaiian Islands are protected by the Federal government, virtually no protection is afforded

by the State government to the same sea turtles while they are around our major islands. Any number of turtles may be taken for any purpose, at any size and at any time of the year. Clearly, research and protection are both urgently needed if Hawaii is to prevent from having one of her unique creatures sent down the road to extinction.

In 1969 Dr. John Hendrickson, marine turtle specialist and former Director of Oceanic Institute, stated (5) that preliminary data on Hawaii's turtles gave the

"subjective impression that Hawaiian turtle populations are over-exploited, under-protected, and declining at a significant rate."

Further, he urged that research be set up as soon as possible to determine the size and range of our population. In 1971 Dr. Harold Hirth, marine turtle consultant for the United Nations, issued a report (6) which recommended that the commercialization of turtles in Hawaii be stopped and that intensive research be initiated so that valuable information could be obtained on our little studied turtle colony. In 1973 Dr. Archie Carr indicated () that he would like to

"see a complete moratorium on the taking of all sea turtles throughout the Hawaiian Islands until a careful survey of breeding, feeding and basking populations could be made".

I have submitted copies of pertinent material to the committee which may help to further describe the endangered state of sea turtles and to illustrate why it is essential that research on turtle populations be carried out now if effective programs for protection and perpetuation are to be formulated.

References

- *1. Balazs, G.H., Status of Marine Turtles in the Hawaiian Islands. Hawaii Institute of Marine Biology, Kaneohe, Hawaii. January, 1973.

- *2. Balazs G.H., Proposed Research Study of Marine Turtle Populations in the Hawaiian Islands. Includes an expenditure breakdown. Hawaii Institute of Marine Biology. January, 1973.
3. Carr, A.F., Personal Communications. 1973.
- *4. Carr, A.F., Great Reptiles, Great Enigmas. Audubon, Vol. 74, No.2. 1972.
5. Hendrickson, J.R., Report on Hawaiian Marine Turtle Populations. in IUCN N.S. 20:89-95. Morges, Switzerland. 1969.
6. Hirth, H.F., South Pacific Islands- Marine Turtle Resources. Report for the Fisheries Development Agency Project. 102:2, F.A.O. Rome, 1971.

* - Material submitted to the committee along with this testimony.

SIX-POINT PROGRAM FOR PROPOSED GREEN SEA TURTLE MANAGEMENT

STUDY IN THE HAWAIIAN ARCHIPELAGO

1. Conduct periodic intensive surveys, samplings and taggings at select feeding habitat locations adjacent to the major Islands (Kauai, Oahu, Molokai, Lanai, Maui and Hawaii).
2. Conduct seasonal intensive breeding and nesting studies at French Frigate Shoals.
3. Conduct land and aerial reconnaissance surveys directed at locating any remaining breeding and nesting activity in the major Islands.
4. Analyze existing and future turtle catch statistics and interview turtle fishermen.
5. Survey Northwestern Hawaiian Islands at periodic intervals to assess status of turtles (in cooperation with U. S. Fish and Wildlife personnel).
6. Conduct tagging studies at Midway and Johnston Atolls (in cooperation with resident personnel).

Essential biological information that will result from the study includes:

1. the proportion of the total population represented by each age group along with their abundance;
2. the distribution and range of the population;
3. the rate of individual growth and the sex ratios present;
4. the migratory patterns of each age group;
5. the reproductive potential and mortality factors that limit the population; and
6. the effects of man on the various population parameters.

TENTATIVE BUDGET FOR PROPOSED
THREE YEAR GREEN SEA TURTLE MANAGEMENT STUDY

Item	Expenditures	
	Yearly	3-Year Total
Salaries and Wages		
Project Leader (1/2 time)	\$6,400	\$19,200
Research Assistant (1/2 time)	3,800	11,400
Consultants (turtle fishermen)	1,900	5,700
Student Help	1,200	3,600
Sub-total	13,300	39,900
Equipment and Supplies	1,575	4,725
Outer-Island Travel	500	1,500
Vessel Charter	750	2,250
Aircraft Charter	250	750
Publication Costs	75	225
Total	\$16,450	\$49,350

With the Hawaii Institute of Marine Biology (located on Coconut Island in Kaneohe Bay) as the center for project operations, various laboratory services and equipment will be available to the study at no direct cost. In addition, agencies such as the State Division of Fish and Game, U. S. Fish and Wildlife Service, National Marine Fisheries Service and Marine Options Program (Manoa and Hilo campuses) are anticipated to enthusiastically cooperate in the project, thereby providing additional indirect assistance.

REFERRED TO
1974 → BROWN'S committee
for hearing → YOSHINAGA → WAYS AND MEANS → TO SENATE VOTE
5487887



STAND. COM. REP. NO. 710

LIBRARY OF
GEORGE H. BALAZS

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 sanctions 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. Kunimura
TONY T. KUNIMURA, 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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From the Office of
ANSON CHONG
State Capitol, Suite 305
Honolulu, Hawaii 96813
Phone 548-4183

STAND. COM. REP. NO. 710

Honolulu, Hawaii
April 4, 1973

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

LIBRARY OF
GEORGE H. BALAZS

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 sanctions 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.

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Respectfully submitted,

Jack K. Suwa
JACK K. SUWA, Chairman

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ANSON CHONG, Member

Clarence Y. Akizaki
CLARENCE Y. AKIZAKI, Vice Chairman

Tats Kishinami
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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 appetities 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 in-
16 sure the preservation of the green sea turtle in Hawaiian waters.

SECTION 3. There is appropriated out of the general revenues of the State of Hawaii a sum of \$10,000, or so much thereof as may be necessary, for a preliminary feasibility study of the possibilities of increasing the size of the population by locating and rendering protection against man and other predators to the nesting beaches or implementing hatcheries or such other means of increasing to size of the population as may be learned.

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

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

SECTION 6. This Act shall take effect upon its approval.

INTRODUCED BY:

Clarence J. Aizaki
 Samuel W. Uehara
 James O. Lee
 Kenneth Lee
 R. H. Wason

Anson Chong
 Dick Medina
 Richard Garcia
 Jean King
 Arthur Sakuma
 (Signature)

MAR 5 1973

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David K. Shaw

Ed. J. Munn

Geo. C. ...

Patry K. Young

Jack A. ...

Richard J. H. ...

John de la ...

Jim. ...

John S. ...

Ray T. ...

Steve Cobb

Joe Gay

Oliver ...

Thomas ...

Thomas ...

MAR 5 1973

From the Office of
ANSON CHONG
State Capitol, Suite 305
Honolulu, Hawaii 96813
Phone 548-4183

Geo. Balazs

HOUSE OF REPRESENTATIVES
STATE CAPITOL
HONOLULU, HAWAII 96813

ANSON CHONG

June 22, 1973

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

Member:
Finance
Labor
Tourism
Agriculture

TO: The Green Turtle people
FROM: Anson Chong
SUBJECT: Information on the Green Turtle

Thanks to the generous assistance of the Hawaii Audubon Society, two key articles are enclosed for your information: (1) "Status of Marine Turtles in the Hawaiian Islands" by George Balazs, 6/73 and (2) "Great Reptiles, great enigmas" by Archie Carr, 3/72.

Together, these articles will enable you to authoritatively explain the crisis facing us today in Hawaii and the reasons for the urgency of passing legislation to protect the Green Turtle in Hawaiian waters.

Please continue to spread the word about the Green Turtle. Volunteer to speak in Schools. Call or write your local Representative. Remember, H.B. 1635 (HD 2) will be coming up next January (I sent you a copy of this bill in an earlier mailing).

In the meantime, continue to send names and addresses of people whom you know are interested in saving The Green Turtle from extinction and who may be interested in assisting an ad hoc committee to lobby for its passage next session.



NOTE: I have not enclosed the above mentioned articles because I know that you have already read them or have them.. (And to save the taxpayer postage and also to enable me to have extra copies!!) In any case, we've got the articles mailed out to 27 interested people. Hopefully, we'll be getting a multiplier effect soon! Incidentally, I do hope that you and other interested people will feel free to call meetings and plan strategies on your own. Please consider my office as your information dissemination point!

TESTIMONY BY GEORGE H. BALAZS, HAWAII INSTITUTE OF MARINE BIOLOGY,
UNIVERSITY OF HAWAII, CONCERNING HB 1635 WHICH RELATES TO RESEARCH
AND MANAGEMENT FOR THE CONSERVATION OF SEA TURTLES IN HAWAIIAN
WATERS.

March 28, 1973

4

In a recent issue of Audubon , the magazine of the National Audubon Society, Dr. Archie Carr, the world's foremost authority on sea turtles, states that:

"Today the plight of sea turtles is widely known, and efforts to learn more about them and slow their decline are in progress almost wherever they occur."

Unfortunately for Hawaii, it appears as though the plight of our sea turtles has not been widely known, and at present only limited effort is underway to learn more about them so that we may slow their decline. Although no definitive data exists on population size, subjective observations by numerous local residents seem to indicate that the number of sea turtles in our waters has decreased noticeably in recent years. 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 lbs of sea turtle was reported taken in 1963 while a record high of 25,583 lbs was reported for 1972. A large portion of this commercial catch now enters the tourist industry to be sold as turtle steak, 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. It is also unknown how many commercial turtle sales go completely unreported to the Fish and Game.

Can our population of sea turtles continue to sustain such seemingly large harvests and still remain viable? Will sea turtles gradually vanish from our Islands' waters as they have in many other areas of the world? Although turtles in the Northwestern Hawaiian Islands are completely protected by the U. S. Bureau of Sport Fisheries and Wildlife, virtually no protection is afforded by the Hawaii State Government to the same sea turtles while they are around our major islands¹. Any number of turtles may be taken for any purpose, at any size and at any time of the year. During the 1971 legislative session, the Department of Land and Natural Resources urged that funds be provided for a research management study of sea turtles in Hawaiian waters because scientific knowledge is lacking about these valuable animals⁷. Clearly intensive research is urgently needed if Hawaii is to prevent from having one of her unique creatures sent down the road to extinction.

In 1969 Dr. John Hendrickson, marine turtle specialist and former Director of Oceanic Institute, stated⁵ that preliminary data on Hawaii's turtles gave the:

"subjective impression that Hawaiian turtle populations are over-exploited, under-protected, and declining at a significant rate."

Further, he urged that research be set up as soon as possible to determine the size and range of our population. In 1971 Dr. Harold Hirth, marine turtle consultant for the United Nations, issued a report⁶ which recommended that the commercialization of turtles in Hawaii be stopped and that intensive research be initiated so that valuable information could be obtained on our little studied turtle colony. In 1973 Dr. Archie Carr indicated³ that he would like to:

"see a complete moratorium on the taking of all sea turtles throughout the Hawaiian Islands until a careful survey of breeding, feeding and basking populations could be made."

I have submitted copies of pertinent material to the committee along with my testimony which I hope can help to further clarify the endangered state of sea turtles throughout the world and to illustrate why it is essential that research on turtle populations be carried out. Only through adequate and comprehensive research studies can effective programs for protection, perpetuation and management be formulated.

References

1. *Balazs, G. H., Status of Marine Turtles in the Hawaiian Islands. Hawaii Institute of Marine Biology, Kaneohe, Hawaii. January, 1973.
2. *Balazs, G. H., Proposed Research Study of Marine Turtle Populations in the Hawaiian Islands.
3. Carr, A. F., Personal Communications, 1973.
4. *Carr, A. F., Great Reptiles, Great Enigmas. Audobon, Vol. 74, No. 2. 1972.
5. Hendrickson, J. R., Report on Hawaiian Marine Turtle Populations. in IUCN N. S. 20:89-95. Morges, Switzerland. 1969.
6. Hirth, H. F., South Pacific Islands - Marine Turtle Resources. Report for the Fisheries Development Agency Project. 102:2, F.A.O. Rome, 1971.
7. Testimony to the Honorable Richard A. Kawakami, Chairman House Committee on Lands from Mr. Sunao Kido, Chairman, Board of Land and Natural Resources, relating to HB 1218 (Preservation of the Green Sea Turtle). 1971 Legislative Session, April 1, 1971.

* Material submitted to the committee along with this testimony.

(To be made one and ten copies)

HOUSE OF REPRESENTATIVES
SEVENTH LEGISLATURE, 1973
STATE OF HAWAII

H. R. NO. 303

HOUSE RESOLUTION

REQUESTING THAT THE PEOPLE OF HAWAII AID IN HALTING THE DECLINE OF, AND IF POSSIBLE IN THE RESTORATION OF, THE GREEN SEA TURTLE POPULATIONS WHICH FREQUENT THE WATERS ADJACENT TO THESE HAWAIIAN ISLANDS, AND REQUESTING THE DEPARTMENT OF LAND AND NATURAL RESOURCES TO STUDY MEANS OF PROTECTING SEA TURTLES AND THE FEASIBILITY OF RAISING TURTLES COMMERCIALY AND TO REPORT ITS FINDINGS TO THE HOUSE OF REPRESENTATIVES.

WHEREAS, the green sea turtle (Chelonia species) populations which frequent the waters adjacent to the Hawaiian Islands appear to be declining; and

WHEREAS, it has been many years since any significant turtle nesting has been observed or reported on the beaches of any of the major islands in the Hawaiian chain which formerly were turtle nesting grounds; and

WHEREAS, the people of Hawaii prize this species both for its natural beauty within its own habitat and as a delectable food; and

WHEREAS, man has continually expanded his knowledge of and control over his environment but through lack of knowledge ecology has too frequently exterminated some species and endangered the survival of others; and

WHEREAS, man has learned much but has much more to learn to conserve as he should the flora and fauna with which he shares this earth in an interdependent relationship vital to his own survival; and

WHEREAS, man has devised more efficient methods and devices to aid him in gathering green turtles of the breeder pool age while grazing off their range in the waters adjacent to the Hawaiian Islands, some of which devices, even though prescribed by law, present peculiar law enforcement difficulties; and

WHEREAS, the demand for turtle meat and shells increases proportionally with the increase in the number of tourists and the number of restaurants and shops serving the tourist industry; and

WHEREAS, almost all species of sea turtles in the seas of the world including the green sea turtle are considered endangered species or nearly endangered species and many turtle populations and their nesting grounds have been totally obliterated; and

WHEREAS, an endangered species is one whose prospects for survival and reproduction are in immediate jeopardy of extinction; and

WHEREAS, those turtle populations which frequent the waters adjacent to the Hawaiian Islands may be on the verge of extinction for lack of a breeder pool of sufficient numbers; and

WHEREAS, other states, countries and sundry groups have commissioned studies of the turtle populations in their areas and have instituted programs to protect the nesting grounds from man and other predators, programs to attempt restocking via hatcheries, and programs of raising turtles for food as commercial industry; 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 be requested to commence a series of studies to determine as accurately as possible the degree to which the turtle populations which frequent the seas adjacent to the Hawaiian Island chain are threatened; and

BE IT FURTHER RESOLVED that these studies shall include consideration of the feasibility of programs to locate and protect the nesting grounds, the feasibility of instituting hatcheries, and the feasibility of raising turtles commercially to supply the appetites of the people of the State of Hawaii, and the visitor industry; and

BE IT FURTHER RESOLVED that the Department of Land and Natural Resources shall submit a report of its findings and recommendations to the legislature twenty days prior to the convening of the Regular Session of 1974; 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: Anson Chong

Clarence J. Czekajski
 Dick Medina
 Richard Garcia
 Jimi Pl
 Daniel K. Shaw
 R.H. Wasan
 Ted M. Mando
 Leo Calacuan
 Pedro de la Cruz
 James L. Ryan
 Steve Cobb
 Oliver Luna

Charles T. Ustajin
 Jean King
 Abria Schmitz
 Gus V. Stumman
 Herman Lee
 Peter K. Young
 Jack A. Lewis
 Richard J. H. Brown
 Jimi Kato
 Raymond K. ...
 Roy J. Kominer
 Fred Gap
 Herman ...

MAR 8 1973

PROPOSED PROTECTION FOR MARINE TURTLES

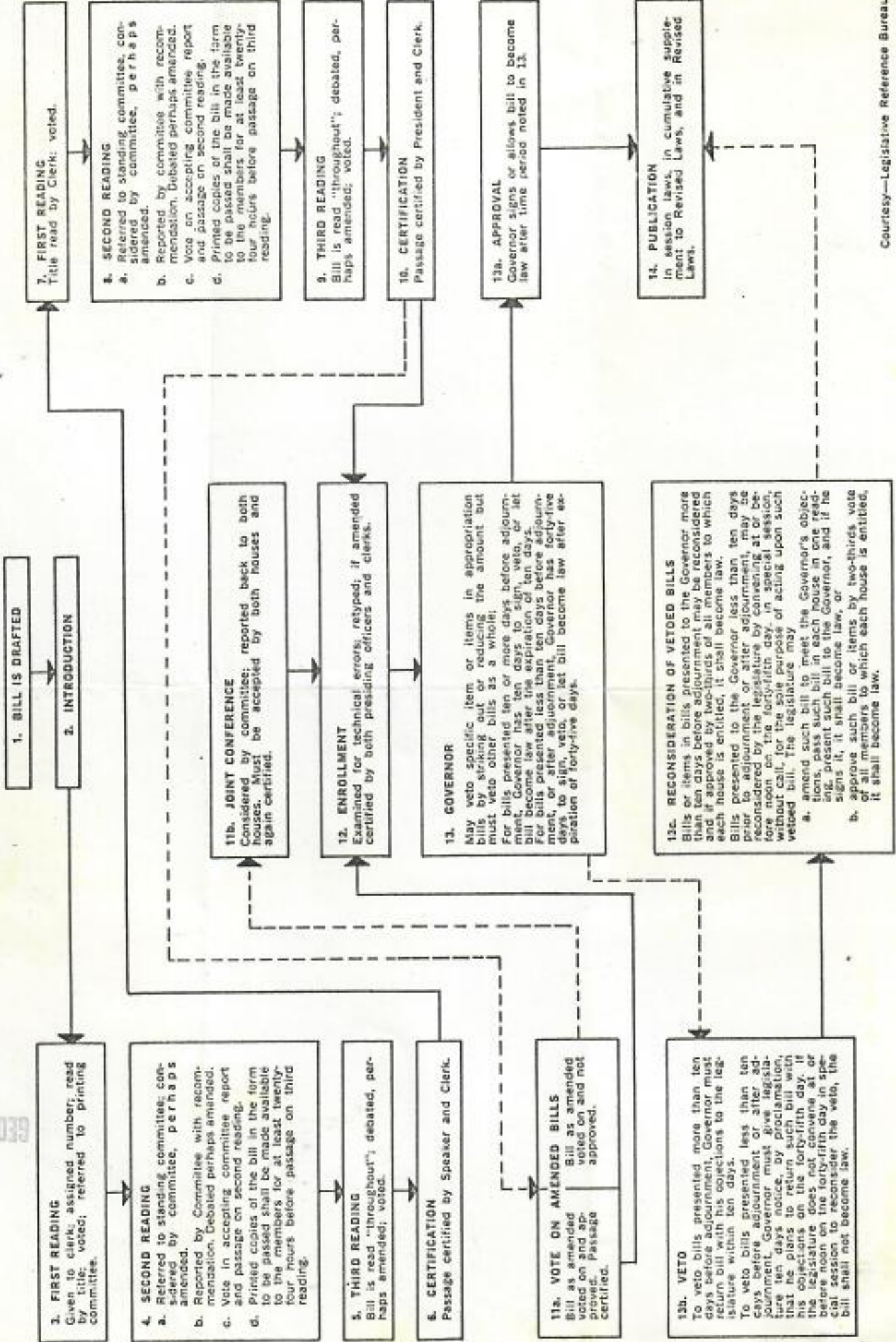
PREPARED BY: George H. Balazs

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.

HOW A BILL BECOMES LAW IN HAWAII

Table illustrates how a bill originating in the House of Representatives becomes law. The same general procedure is followed in the case of Senate bills—the bill being acted upon first in the Senate and then in the House of Representatives.



GEORGE H. BALAZS
 LIBRARY OF

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

RICHARD A. KAWAKAMI, Chairman

Anson Chong

ANSON CHONG, Vice Chairman

Peter A. Aduja

PETER A. ADUJA, Member

Peter S. Iha

PETER S. IHA, Member

Ralph K. Ajifu

RALPH K. AJIFU, Member

Daniel J. Kihano

DANIEL J. KIHANO, Member

John J. Medeiros

JOHN J. MEDEIROS, Member

Jean King

JEAN KING, Member

Andrew K. Poepge

ANDREW K. POEPGE, Member

Ronald K. Kondo

RONALD K. KONDO, Member

Oliver Lunasco

OLIVER LUNASCO, Member

Ted T. Morioka

TED T. MORIOKA, Member

Yoshito Takamine

YOSHITO TAKAMINE, Member

Herman Weidemeyer

HERMAN WEDEMEYER, Member

(To be made one and ten copies)

HOUSE OF REPRESENTATIVES
SEVENTH LEGISLATURE, 1973
STATE OF HAWAII

H. B. NO. 1635
H. D. 1

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
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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.



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. George Balazs
Hawaii Institute of Marine
Biology
P.O. Box 8195
Coconut Island
Kaneohe, Hawaii 96744

Dear Dr. Balazs,

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, 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 battle lies ahead for Senate concurrence, and I suggest that you once again marshal 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:cq

Enclosures: Standing Committee Report 550
Standing Committee Report

From the Office of
ANSON CHONG
State Capitol, Suite 305
Honolulu, Hawaii 96813
Phone 548-4183

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 sanctions 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. Akiyaki
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. Kunitama
TONY T. KUNITAMA, 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 appetities 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 in-
16 sure the preservation of the green sea turtle in Hawaiian waters.

SECTION 3. There is appropriated out of the general revenues of the State of Hawaii a sum of \$10,000, or so much thereof as may be necessary, for a preliminary feasibility study of the possibilities of increasing the size of the population by locating and rendering protection against man and other predators to the nesting beaches or implementing hatcheries or such other means of increasing to size of the population as may be learned.

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

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

SECTION 6. This Act shall take effect upon its approval.

INTRODUCED BY:

Claudia Y. Akizaki
Samuel W. U. Mōhōriki
Amis O. Can
Kenneth Lee
R. H. Wilson

Anson Chong
Rich Medina
Richard Garcia
Jean King
John Sabino
1000 ...

MAR 5 1973

1 David K. Brown
 2 Ted J. Mouch
 3
 4 Leo Adams
 5 Peter K. Young
 6 Jack A. Luma
 7 Richard J. H. Young
 8 Peter de la Cruz
 9
 10 Jim. Kim
 11 Ed. Skatene
 12 James L. Young
 13
 14 Roy T. Kimura
 15
 16 Steve Cobb
 17
 18 Fred Gay
 19
 20
 21 Olin Luma
 22
 23 Hermane Luma
 24
 25

MAR 5 1973

R. KONDO - MAUI

Fishing - Pitman-Robertson FUNDS
- Dingle-Johnson FUNDS
J.S.
Green Turtle - Threaten List



HOUSE OF REPRESENTATIVES
STATE CAPITOL
HONOLULU, HAWAII 96813

ANSON CHONG

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

Members:
Finance
Labor
Tourism
Agriculture

May 29, 1973

Note: The "Green Turtle Bill" (H.B. 1635) now resides in the Ecology, Environment and Recreation Committee of the Senate.

This is the make-up of the Committee:

Kenneth F. Brown, Chairman
Mason Altiery, Vice Chairman

Members: Donald Ching, John Hulten, John Ushijima, Percy Mirikitani and Frederick Rohlfing

Office: Capitol, Room 224. Phone: 548-7444

From the Office of
ANSON CHONG
State Capitol, Suite 305
Honolulu, Hawaii 96813
Phone 548-4103



HOUSE OF REPRESENTATIVES
STATE CAPITOL
HONOLULU, HAWAII 96813

ANSON CHONG

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

Members:
Finance
Labor
Tourism
Agriculture

May 29, 1973

Note: The "Green Turtle Bill" (H.B. 1635) now resides in the Ecology, Environment and Recreation Committee of the Senate.

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Kenneth F. Brown, Chairman
Mason Altiery, Vice Chairman

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Office: Capitol, Room 224. Phone: 548-7444

From the Office of
ANSON CHONG
State Capitol, Suite 305
Honolulu, Hawaii 96813
Phone 548-4103



HOUSE OF REPRESENTATIVES

STATE CAPITOL

HONOLULU, HAWAII 96813

June 7, 1973

ANSON CHONG

GREEN SEA TURTLE NEWS ---

Vice-Chairman:

Water/Land Use & Development
Public Employment

Members:

Finance
Labor
Tourism
Agriculture

The following persons met at my office on May 29th to discuss strategies for pushing through H.B. 1635; George & Linda Balazs, Hilda Cherry, Frank Radowsky, Michio Takata, Dave Olsen, Ben Mahre, Alan Ziegler, Jerry McCool, Wayne Gagne and Mae Mull.

Someone suggested that we should push for passage of the bill during the special session that may be held this July. So I checked it out with the Speaker and he said that it would not be possible because it would "open the floodgates" and every legislator would thus be pushing for his pet bills also. In short, any prospective special session would probably be limited only to a tax and/or CIP bill.

So it looks like we should continue to get ready for a lobbying effort next session.

As agreed to in the last meeting, I'll be sending you a "fact pack" on the Hawaiian Green turtle culled from Alan Zeigler's very thorough Green Turtle file.

Please send me names and addresses of people you feel will be interested in assisting us in lobbying for passage of H.B. 1635 next session. I'll continue to keep you informed of developments from time to time.

I think that we should have another meeting a month or so before the next session. In the meantime, it won't hurt to get articles into the media about the seriousness of the green turtle situation here. Keep up the pressure!

Thank you for your interest and help.

Anson Chong



HOUSE OF REPRESENTATIVES
STATE CAPITOL
HONOLULU, HAWAII 96813

ANSON CHONG

March 14, 1973

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

Member:
Finance
Labor
Tourism
Agriculture

Dr. George H. Balazs
HIMB, Coconut Island
P. O. Box 8195
Honolulu, Hawaii 96815

Dear Dr. Balazs:

Enclosed for your information are copies of HB 1635 and HR 303, drafted by Mr. Gerry McCool with your assistance. HB 1635 has been referred to the House Committees on Parks, Fish and Game; Water, Land Use and Development; and Finance. HR 303 has been referred to the Parks, Fish and Game Committee as well as to the Finance Committee.

May I ask your kokua in presenting testimony on behalf of these measures? I would also appreciate your advice and suggestions for other qualified persons who might testify on their behalf.

My office will notify you of the hearing dates as soon as they are scheduled.

Mahalo,

ANSON CHONG
Representative, 13th District

AC/ms

Enclosures: (HB 1635 and HR 303)

A BILL FOR AN ACT RELATING TO THE PROTECTION OF ENDANGERED SPECIES
OF WILDLIFE

SECTION 1. The legislature of the State of Hawaii hereby finds that the protection of endangered species of wildlife is a matter of general State concern. The U.S. Endangered Species Act of 1973 provides for the protection of species in danger of extinction and for restricting and regulating their importation and interstate commerce. The States, however, must assume the responsibility of restricting the sale and possession with intent to sell any of these species within their respective jurisdictions in order to assure the continued survival of the earth's vanishing wildlife. The legislature hereby finds that by eliminating the market for these species in Hawaii, the potential for their continued existence will be strengthened.

SECTION 2. The Hawaii Revised Statutes are hereby amended by inserting therein a new section, to be Section ____, to read as follows.

Endangered Species: Notwithstanding any other provisions of this chapter, the importation, sale or possession with intent to sell any endangered species or parts thereof, or any article made in whole or in part from any endangered species is prohibited, except under permit from the Department of Land and Natural Resources. For the purposes of this section, "endangered species" will mean those species as so designated by the Secretary of the U.S. Department of the Interior and the Secretary of the U.S. Department of Commerce, and which appear on the U.S. List of Endangered Species.

Enforcement: Any officer or agent authorized by the Department of Land and Natural Resources or any police officer of any county of the State of Hawaii will have authority to execute any warrant in search for and seizure of any

endangered species or any article derived from an endangered species sold or offered for sale in violation of this section. Such species or articles will be held pending proceedings in any court of proper jurisdiction. Upon conviction, such seized species or articles will be forfeited and, upon forfeiture be offered to a recognized institution for scientific, educational or zoological purposes.

Granting of Permits: The Director of the Department of Land and Natural Resources may issue a permit, under such terms and conditions as he may prescribe, for the importation of any species covered by this section for scientific, educational or zoological purposes or for the propagation of such species for preservation purposes, unless such importation or transportation is prohibited by any federal law or regulation.

Penalties: Any person, business, firm or corporation which violates any provision of this section will be fined not less than ____ nor more than ____.

Effective Date: The provisions of this section will become effective 12 months after the enactment date.

JOHN T. USHJIMA
PRESIDENT

DUKE T. KAWASAKI
VICE PRESIDENT

DONALD D. H. CHENG
MAJORITY LEADER

ANSON CHONG
STANLEY I. HARA
GEORGE H. TOYOFUKU
ASSISTANT MAJORITY LEADERS

ROBERT S. TAIRA
MAJORITY FLOOR LEADER

JOHN J. HULTEN
DENNIS O'CONNOR
MAMORU YAMASAKI
ASST. MAJORITY FLOOR LEADERS

FRANCIS A. WONG
MAJORITY POLICY LEADER

FIRST DISTRICT
STANLEY I. HARA
RICHARD HENDERSON
JOHN T. USHJIMA

SECOND DISTRICT
HENRY TAKITANI
MAMORU YAMASAKI

THIRD DISTRICT
D. G. ANDERSON
MARY GEORGE
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FOURTH DISTRICT
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FRANCIS A. WONG
PATSY K. YOUNG

FIFTH DISTRICT
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ROBERT S. TAIRA
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T. C. YIM

SIXTH DISTRICT
ANSON CHONG
JEAN SADAKO KING
JOHN LEOPOLD
WADSWORTH YEE

SEVENTH DISTRICT
DONALD S. NISHIMURA
DENNIS O'CONNOR
FREDERICK W. ROHLFING
PATRICIA SAKI

EIGHTH DISTRICT
GEORGE H. TOYOFUKU

SEICHU HIRAI
CLERK

The Senate
The Eighth Legislature
of the
State of Hawaii
HONOLULU, HAWAII



January 28, 1975


Dr. George Balazs
Post Office Box 1346
Kaneohe, Hawaii 96744

Dear George:

Enclosed is a copy of Senate Bill 195,
Relating to the Protection of Endangered
Species of Wildlife, which you asked us
to send you.

We have not yet received the green turtle
management bill in our committee yet but
when we do, we'll send you a copy.

With all good wishes,


JEAN KING
Chairman
Committee on Ecology, Environment and
Recreation

JK:amk

HOUSE OF REPRESENTATIVES
EIGHTH LEGISLATURE, 1975
STATE OF HAWAII

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, the decline and if possible, reverse
5 it. The purposes of this Act are to provide for a research manage-
6 ment study of the population of the green sea turtle in Hawaiian
7 waters and to provide for preliminary feasibility studies which
8 may lead to means of halting or reversing the decline of the
9 populations while still supplying the appetites of the people
10 of the State of 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 (Chelonia species) in Hawaiian waters.
15 The study shall include an inventory of the green sea turtle
16 population and a program to insure the preservation of the green
17 sea turtle in Hawaiian waters.
18

1 SECTION 3. There is appropriated out of the general revenues
2 of the State of Hawaii a sum of \$10,000, or so much thereof as
3 may be necessary, for a preliminary feasibility study of the
4 possibilities of increasing the size of the green sea turtle
5 (Chelonia species) population by locating and rendering protection
6 against man and other predators to the nesting beaches or
7 implementing hatcheries or such other means of increasing the
8 size of the population as may be learned.

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

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

21 SECTION 6. This Act shall take effect upon its approval.
22
23
24
25

INTRODUCED BY: _____

Speaker
JAMES H. WAKATSUKI
Vice Speaker
RICHARD GARCIA
Assistant Vice Speaker
TED YAP
Majority Leader
CHARLES T. USHIJIMA
Majority Floor Leader
ROBERT KIMURA
Assistant Majority Leaders
STEVE COBB
DANIEL J. KIHANO
OLIVER LUNASCO
NORMAN MIZUGUCHI

HOUSE OF REPRESENTATIVES
THE EIGHTH LEGISLATURE

STATE OF HAWAII
STATE CAPITOL
HONOLULU, HAWAII 96813

January 29, 1975



First District
JACK K. SUWA
Second District
STANLEY H. ROHRIG
HERBERT A. SEGAWA
Third District
YOSHITO TAKAMINE
Fourth District
MINORU INABA
Fifth District
ALVIN T. AMARAL
GERALD K. MACHIDA
Sixth District
RONALD Y. KONDO
VELMA M. SANTOS
Seventh District
DONNA R. IKEDA
W. BUDDY SOARES
Eighth District
STEVE COBB
JACK LARSEN
Ninth District
DAN S. HAKODA
TED T. MORIOKA
Tenth District
KEN KIYABU
LISA NAITO
Eleventh District
JOHN S. CARROLL
KINAU BOYD KAMALII
Twelfth District
CLARENCE Y. AKIZAKI
CARL T. TAKAMURA
Thirteenth District
NEIL ABERCROMBIE
HIRAM L. FONG, JR.
CHARLES T. USHIJIMA
Fourteenth District
RUSSELL BLAIR
KATHLEEN STANLEY
Fifteenth District
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RICHARD IKE SUTTON
Sixteenth District
AKIRA SAKIMA
TED YAP
Seventeenth District
RICHARD GARCIA
KENNETH LEE
Eighteenth District
MITSUO UECHI
JAMES H. WAKATSUKI
Nineteenth District
BENJAMIN J. CAYETANO
NORMAN MIZUGUCHI
Twentieth District
DANIEL J. KIHANO
MITSUO SHITO
Twenty-First District
RICHARD C. S. HO
HENRY HAALILIO PETERS
Twenty-Second District
OLIVER LUNASCO
HOWARD K. ODA
Twenty-Third District
GEORGE W. CLARKE
Twenty-Fourth District
RALPH K. AJIFU
FAITH P. EVANS
Twenty-Fifth District
JOHN J. MEDEIROS
ANDREW K. POEPOE
Twenty-Sixth District
JANN L. YUEN
Twenty-Seventh District
RICHARD A. KAWAKAMI
TONY T. KUNIMURA
DENNIS R. YAMADA

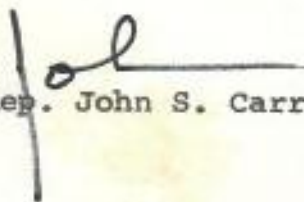
Mr. George Balazs
P.O. Box 1346
Kaneohe, Hawaii 96744

Dear George,

If I understood you correctly, you indicated that the present regulations regarding turtle size is adequate. I think your reasoning regarding taking turtles of over 30 inches is very salient and even though you have indicated that you do not wish me to do so, I have a strong urge to introduce legislation asking the State Fish and Game people to adopt regulations which would allow catching of turtles measuring a minimum of 24 inches and a maximum of 36 inches.

I would appreciate your comments relative to this matter. You may leave them on my boat as you did with the other notes.

Very truly yours,


Rep. John S. Carroll

JSC:em

JOHN T. USHJIMA
PRESIDENT

DUKE T. KAWASAKI
VICE PRESIDENT

DONALD D. H. CHING
MAJORITY LEADER

ANSON CHONG
STANLEY I. HARA
GEORGE H. TOYOFUKU
ASSISTANT MAJORITY LEADERS

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SECT. MAJORITY FLOOR LEADERS

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FREDERICK W. ROHLFING
PATRICIA SAKI

EIGHTH DISTRICT
GEORGE H. TOYOFUKU

BEICHI HIRAI
CLERK

The Senate
The Eighth Legislature
of the
State of Hawaii
HONOLULU, HAWAII



January 20, 1975

Mr. George H. Balazs
47-120 Uakoko Place
Kaneohe, Hawaii 96744

Dear George:

Thank you so much for sending me the New York and Delaware Endangered Species Acts.

In my written suggestions in December to the Senate leadership urging bills and resolutions to be included in the Majority package, I included such an act but wasn't successful in getting it into the package.

However, I think it's an excellent idea and am going ahead and introducing it. As soon as it's been filed I'll send you a copy and will, of course, notify you when the hearing is coming up.

Jim Sawyer of our staff who attended Saturday's hearing before the House Environmental Protection Committee was very impressed by your presentation.

With warm regards to you and Linda -- and again, many thanks for all your help,

Jean
JEAN KING
Chairman
Committee on Ecology, Environment and Recreation

JK:amk

I've just learned from Anson that you talked to him about this so we're w. introducing it. Let us hope!

TESTIMONY BY GEORGE H. BALAZS, HAWAII INSTITUTE OF MARINE BIOLOGY,
CONCERNING THE NEED FOR STATE PROTECTION OF ENDANGERED WILDLIFE SPECIES

January 18, 1975

The cover story of the January 6, 1975 issue of Newsweek Magazine focused the nation's attention on the timely subject of the world's vanishing wildlife. In this article, which narrates man's seemingly unending "war" against the creatures of the wild, commercial exploitation was reiterated as one of the most important factors responsible for the destruction and decline of animal populations. Some of the products that are marketed include tourists' curios carved from elephant tusks, hats fashioned from newborn seal skins, jewelry made from tiger claws, guitar picks made from sea turtle shell and gourmet foods derived from other rare and endangered species. The evidence is clear; trade in wildlife products is rapidly and effectively helping to exterminate the animal kingdom. Through cash incentives, poor people in lesser developed areas are being induced to overexploit their valuable native resources in order to provide exotic luxury items for markets in "advanced" countries.

The need for protecting endangered wildlife has already been fully recognized by the U. S. Government. In the Endangered Species Act of 1973 (which replaced the previous Act of 1969), Congress found and declared that:

1. various species have been rendered extinct as a consequence of economic growth and development untempered by adequate concern and conservation;
2. other species have been so depleted in numbers that they are in danger of or threatened with extinction;
3. these species are of esthetic, ecological, educational, historical, recreational and scientific value;
4. the United States has pledged itself in the international community to conserve the various species facing extinction;
and
5. that states should be encouraged to develop conservation programs which meet national and international standards.

Under this Act animals that are deemed to be threatened with extinction may not be legally imported into the United States or transported in interstate commerce. The present Federal List of Endangered Fauna contains 109 species which receive this protection. In view of the fact that the list has not been updated for two years, and that the Red Book Data of the International Union for the Conservation of Nature (IUCN, Switzerland) now lists more than 1,000 creatures threatened with extinction, it seems most likely that further additions will be forthcoming to the U. S. list.

(over)

Although federal law bans the importation and interstate sale of endangered species, no provisions exist which deal with intrastate commerce. Each state must assume the responsibility for assuring the survival of these animals by restricting sale within their respective jurisdictions. Some states have already taken this initiative by enacting legislation which bans intrastate sale, thereby complementing and strengthening the Federal Act. Among these states are California, Connecticut, Delaware, Illinois and New York.

In view of this action along with the growing concern among many citizens for perpetuating the earth's wildlife, it would certainly seem worthy for our legislature to give serious consideration to a comparable state endangered species protection law for Hawaii.

JOHN T. USHJIMA
PRESIDENT

DUKE T. KAWASAKI
VICE PRESIDENT

DONALD D. H. CHING
MAJORITY LEADER

ANSON CHONG
STANLEY L. HARA
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ROBERT S. TAIRA
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ASST. MAJORITY FLOOR LEADERS

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MAJORITY POLICY LEADER

FIRST DISTRICT
STANLEY L. HARA
RICHARD HENDERSON
JOHN T. USHJIMA

SECOND DISTRICT
HENRY TAKITANI
MAMORU YAMASAKI

THIRD DISTRICT
D. G. ANDERSON
MARY GEORGE
JOHN J. HULTEN

FOURTH DISTRICT
DONALD D. H. CHING
JOSEPH T. KURODA
FRANCIS A. WONG
PATSY K. YOUNG

FIFTH DISTRICT
DUKE T. KAWASAKI
ROBERT S. TAIRA
RICHARD S. H. WONG
T. C. YIM

SIXTH DISTRICT
ANSON CHONG
JEAN SADANO KING
JOHN LEONARD
WADSWORTH YEE

SEVENTH DISTRICT
DONALD S. NISHIMURA
DENNIS O'CONNOR
FREDERICK W. KOHLEMAN
PATRICIA SAKI

EIGHTH DISTRICT
GEORGE H. TOYOFUKU

SEIICHI HIRAI
CLERK

The Senate
The Eighth Legislature
of the
State of Hawaii
HONOLULU, HAWAII



February 21, 1975

Mr. George H. Balazs
Hawaii Institute of Marine Biology
University of Hawaii
P. O. Box 1346
Kaneohe, Hawaii 96744

Dear George:

How come you're suddenly calling me Senator King?

I will overlook such lapses, however, because I really appreciate your pointing out the defects in H.B. 191. Such information is extremely helpful and I'll pass the word along.

Thank you, too, for sending along an advance copy of your testimony. The hearing on it has been set for Tuesday, February 25, at 7:30 PM and if you're not able to make it, we'll certainly look forward to Linda presenting it. She's certainly an able proponent, as I well recall from the first time she corralled me at Kapiolani Community College.

→ George, I wonder if you could let me know why on the Endangered Species Bill you put in a provision granting exceptions by action of the DLNR?

With all good wishes to you and Linda,


JEAN KING
Chairman
Committee on Ecology, Environment and Recreation

JK:fi

LIBRARY OF

State of Hawaii
Department of Land and Natural Resources
Honolulu

Draft #8
(4/1/74)

DIVISION OF FISH AND GAME

The Board of Land and Natural Resources, in conformity with and pursuant to Chapters 187 and 190, Hawaii Revised Statutes, and every other law hereunto enabling does hereby adopt the following regulation relating to the protection of marine turtles.

REGULATION 36. RELATING TO THE PROTECTION OF MARINE TURTLES.

SECTION 1. It shall be unlawful to mutilate, injure, take, kill, possess, disturb, sell or offer to sell leatherback turtles (Dermochelys sp.), hawksbill turtles (Eretmochelys sp.) and green sea turtles (Chelonia sp.) or any parts thereof or the eggs or nests thereof from or within the State of Hawaii and waters subject to its jurisdiction, except as provided in Sections 2 and 4 of this regulation.

SECTION 2. It shall be lawful with a permit issued by the Board of Land and Natural Resources to:

- a. take or possess marine turtles or their eggs for scientific, educational or propagational purposes.
- b. take or possess green sea turtles for home consumption from the waters surrounding the eight major islands (Hawaii, Maui, Kahoolawe, Lanai, Molokai, Oahu, Kauai and Niihau) provided that the upper shell length is 36 inches or more (straight line measurement) and provided further that the turtle may be gutted and/or cut up into not more than five parts with one of the parts being the whole upper shell with the entire head attached and all parts shall be kept together until the permittee leaves the shore area for his home.
- c. possess or sell the eggs or offspring of captive green sea turtles or products thereof.
- d. possess with intent to sell or to sell marine turtles or products thereof acquired prior to the effective date of this regulation.

SECTION 3. It shall be unlawful to use nets for the taking of green sea turtles.

SECTION 4. Nothing in Section 1 shall be construed as making it unlawful for any person to possess for purposes other than sale marine turtles or products thereof acquired prior to the effective date of this regulation.

SECTION 5. Any person violating the provisions of this regulation shall be fined not more than \$500 as provided in Section 187-20, Hawaii Revised Statutes.

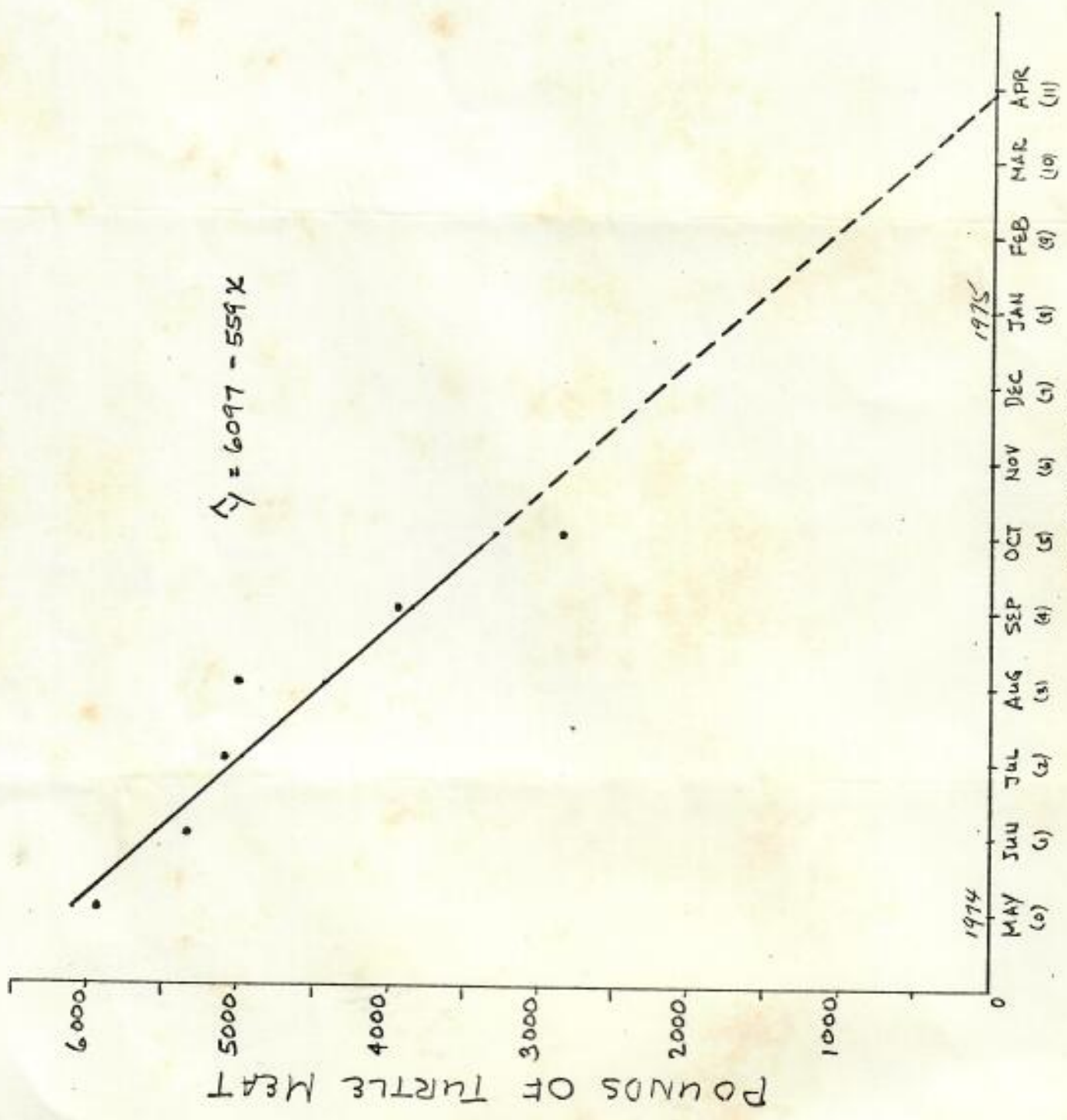
Information supplied by Paul Kawamoto, Div. F. & G., at ASAC mtg., 20 Dec. 1974.

I - Number of Permitters : (to possess and sell Green Turtle meat)

Maui - 2 issued	2 active
Hawaii - 2 "	1 " (one voluntarily cancelled)
Kauai - 3 "	3 "
Molokai - 2 "	0 " (two expired 6-30-74)
Oahu - <u>6 "</u>	<u>6 "</u>
15 issued	12 active

II - Monthly Status of Marine Turtle Meat In Stock From May To October, 1974.

<u>Months</u>	<u>Total Meat In Stock</u>
May	5,927 #
June	5,345
July	5,097
August	5,007
September	3,959
October	2,863



Monthly rate of depletion of green sea turtle meat reported from May, 1974 to October, 1974.

STATE OF HAWAII

SEA TURTLE CATCH REPORTED
FOR YEARS 1948 to 1971Compiled by George H. Balazs
Hawaii Institute of Marine Biology

YEAR	POUNDS	VALUE (U.S.\$)	VALUE/POUND
1948	17,650	2,154	.12
1949	15,168	2,016	.13
1950	11,588	1,733	.15
1951	5,144	1,050	.20
1952	2,731	533	.20
1953	9,466	2,214	.23
1954	3,040	483	.16
1955	11,126	1,731	.16
1956	6,819	1,025	.15
1957	696	195	.28
1958	3,207	1,171	.37
1959	714	90	.13
1960	3,739	527	.14
1961	709	139	.20
1962	477	48	.10
1963	380	79	.21
1964	1,609	321	.20
1965	1,510	57	.04
1966	4,715	1,053	.22
1967	5,021	1,173	.23
1968	3,350	2,400	.72
1969	10,175	2,820	.28
1970	12,506	5,017	.40
1971	19,884	9,850	.50

Sea Turtle Statistics for Hawaiian Waters

	1967		1968		1969		1970		1971	
	Pounds	Value US \$ 1b	Pounds	Value US \$ 1b	Pounds	Value US \$ 1b	Pounds	Value US \$ 1b	Pounds	Value US \$ 1b
Jan	1900	.32	227	.10	*	*	883	464	1625	795
Feb	35	.29	447	.09	2450	147	966	466	769	297
Mar	2550	.10	750	.67	16	10	530	220	3920	1702
Apr	400	.65	1094	1.00	690	*	1023	501	1690	663
May	*	*	244	.63	*	*	2070	1149	1530	686
June	*	*	264	1.00	*	*	182	182	3055	1088
July	*	*	324	1.00	*	*	500	59	440	129
Aug	*	*	*	*	150	98	1147	308	1875	978
Sept	*	*	*	*	2290	890	2726	762	1550	1262
Oct	100	.12	*	*	1374	493	771	264	750	554
Nov	22	.59	*	*	1474	399	*	*	1330	959
Dec	14	.71	*	*	1731	783	1708	642	1350	737
Total	5021	1173	3350	2400	10175	2820	12506	5017	19884	9850
		.23	.72	.30**	.40	.40	.40	.40	.40	.50

* Not reported

** Not including April

$\bar{x} = \$5.40$
per Commercial
resident

DIVISION OF FISH AND GAME

Table 1. FRESHWATER GAME FISHING LICENSE AND HUNTING LICENSE STATISTICS 1958-59 to 1970-71

Years Ending June 30	Freshwater Game Fishing		Hunting	
	Number Issued	Collections (dollars)	Number Issued	Collections (dollars)
1958-1959	2,383	\$ 4,885.61	5,222	\$25,094.23
1959-1960	1,682	3,638.23	5,290	25,564.25
1960-1961	3,014	6,339.94	6,214	30,202.25
1961-1962	4,209	8,824.01	6,924	33,897.72
1962-1963	4,264	8,983.57	7,095	34,441.65
1963-1964	5,269	11,225.75	7,766	38,180.00
1964-1965	4,357	9,385.87	7,613	37,228.57
1965-1966	3,743	11,932.48	6,903	50,275.13
1966-1967	3,424	10,866.75	7,142	52,786.70
1967-1968	3,867	12,840.29	8,510	61,131.03
1968-1969	3,798	12,050.56	8,629	62,044.86
1969-1970	5,070	16,128.81	9,773	70,386.89
1970-1971	5,551	17,550.71	10,302	75,109.30

Table 2. COMMERCIAL FISHING LICENSES AND PERMITS 1970-71

Kind of License and Permits	Number	Collections (dollars)
Commercial Fishing—Resident	1,343	\$13,430.00
Commercial Fishing—Non-Resident	30	600.00
Power Boat Permit	705	4,614.50
Row Boat and Sail Boat Permit	33	33.00
Boat Plates (pair)	248	331.75
Mullet License	88	315.00
Lobster License	2	6.00
Commercial Bait Permit	54	54.00
Duplicate Commercial Fishing License	8	4.00
TOTAL	2,511	\$19,388.25

Table 3. COLLECTIONS—ALL SOURCES: 1964-65 to 1970-71

Year ending June 30	All Collections	Commercial Fishing	Freshwater Game Fishing	Hunting	Miscellaneous Licenses, Permits, and Other Income
1970-1971	\$113,611.51	\$19,388.25	\$17,550.71	\$75,109.30	\$1,563.25
1969-1970	105,327.60	17,690.40	16,128.81	70,386.89	1,121.50
1968-1969	89,157.92	14,532.50	12,050.56	62,044.86	530.00
1967-1968	85,789.02	11,052.20	12,840.29	61,131.03	765.50
1966-1967	76,555.94	11,310.65	10,866.75	52,786.70	1,591.84
1965-1966	78,735.43	9,937.00	11,932.48	50,275.13	6,590.82
1964-1965	60,903.57	10,078.00	9,385.87	37,228.57	4,211.13

Table 4. FRESHWATER GAME FISHING LICENSE: 1970-71

Type	Hawaii		Maui		Oahu		Kauai		STATE	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Resident	13	\$46.87	2	\$7.50	3,950	\$14,090.59	396	\$1,420.94	4,361	\$15,565.90
Non-Resident					17	121.48	6	43.49	23	164.97
Juvenile	1	1.50			943	1,346.28	100	142.86	1,044	1,490.64
Tourist					64	228.36	23	83.62	87	311.98
Duplicate					34	16.24	2	.98	36	17.22
TOTAL	14	\$48.37	2	\$7.50	5,008	\$15,802.95	527	\$1,691.89	5,551	\$17,550.71

Table 5. HUNTING LICENSES: 1970-71

Type	Hawaii		Maui		Oahu		Kauai		STATE	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount	No.	Amount
Resident	2,584	\$19,821.57	2,185	\$15,684.65	3,813	\$27,351.16	1,104	\$7,928.66	9,686	\$70,786.04
Non-Resident	199	2,846.25	45	646.50	37	541.50	9	129.00	290	4,163.25
Duplicate	82	41.00	139	68.56	75	35.96	30	14.49	326	160.01
TOTAL	2,865	\$22,708.82	2,369	\$16,399.71	3,925	\$27,928.62	1,143	\$8,072.15	10,302	\$75,109.30

Table 6. MISCELLANEOUS GAME LICENSES, SALES, DONATIONS AND RENTAL: 1970-71

	Amount (dollars)
Game Bird Farm License	65 \$ 65.00
Sale of Publication "Game Birds in Hawaii"	106 58.75
Sale of Confiscated Legal Hunting Gear	9 455.00
Sale of Confiscated Fishing Gear	9 52.50
Sale of Fish (Oysters)	1 30.00
Donation	— —
Rental of Hunting Cabins—Hawaii	75 902.00
Total	265 \$1,563.25

Table 7. MISCELLANEOUS PERMITS (NO CHARGE) 1970-71

Type	Number
Permit to Destroy Birds or Mammals	14
Scientific Collecting Permit	23
Field Trial Permit	7
Permit for Entry on Bird Sanctuaries	81
Aquarium Fish Permit	200
Permit to Keep Birds in Captivity	3
Group Permit	1
Other Permits	3
Total	332

Table 8. FEDERAL AID FUNDS 1970-71

Type	Amount (dollars)
Pittman-Robertson Federal Aid in Wildlife Restoration Fund	\$131,553.97
Dingell-Johnson Federal Aid in Fish Restoration Fund	102,923.24
Nene Restoration Project Fund	25,020.03
Hawaiian Islands National Wildlife Refuge Fund	—
Commercial Fisheries Research & Development (P.L. 88-309) Fund	34,065.35
Total	\$293,562.59

Table 9. COMMERCIAL FISH CATCH BY SPECIES, STATE OF HAWAII—FISCAL YEAR JULY, 1970 TO JUNE, 1971

Sea Catch by Species			Pond Catch by Species		
Species	Pounds	Value	Species	Pounds	Value
Aku (Skipjack)	11,449,345	\$2,309,990	Pualu	8,677	\$ 1,933
Ahi (Yellowfin)	773,314	504,557	Puhi (eel)	6,455	434
Ahipalaha (Albacore)	20,590	9,878	Puhi (white eel)	702	117
Ahi (Bigeye)	377,839	438,105	Uhu	5,869	2,254
Kawakawa	21,859	5,295	Ukikiki (Gindal)	1,741	1,448
Stripe Marlin	238,271	153,883	Uouoa	146	70
Pacific Blue Marlin*	240,888	79,952	Uu (Menpachi)	24,051	17,672
Black Marlin**	3,639	2,221	Weke	31,054	12,718
Broadbill	5,500	1,554	Malu	282	186
A'u Iepe (Sailfish)	3,028	591	Crab (Papai-Misc.)	5,713	2,915
Mahimahi	76,596	54,780	Crab (Kona)	43,576	56,902
Ono	39,442	11,615	Crab (Kuahonu)	42,630	49,981
Hapuupuu	46,239	32,435	Crab (Moala)	136	46
Kahala	77,807	32,854	Crab (Samoan)	12	17
Kalekale	4,752	5,242	Opae (Shrimp)	3,076	3,811
Omilu	2,912	2,349	Ula (Lobster)	6,818	8,836
Opakapaka	63,132	50,174	Ulapapapa	182	172
Uku	49,859	27,874	Hee (Octopus)	6,969	4,945
Ulaula (Ehu)	19,401	24,662	Muhee (True Squid)	5,874	3,250
Ulaula Koaie (Onaga)	39,744	61,143	Opihi (Limpet)	17,229	17,084
Ulua	64,922	35,232	Honu (Turtle)	19,441	7,266
Weke-ula	12,673	11,728	Misc.	99,656	34,772
Aawa	1,383	212	TOTAL	15,159,262	\$4,624,112
Aholehole	3,250	2,693			
Akule	608,472	236,555			
Hahalalu	237,213	103,541			
Amaama (Mullet)	18,073	20,860			
Awa	11,278	3,187			
Aweoweo	1,899	918			
Humuhumu (Hage)	1,582	612			
Kaku (Barracuda)	4,436	1,130			
Kala	19,910	3,621			
Kawelea	4,031	2,099			
Kumu	7,205	10,112			
Laenihi (Nabeta)	2,001	1,516			
Lehi	1,806	972			
Maomao (Mamo)	1,028	499			
Manini	8,523	5,620			
Moano	12,596	9,284			
Moi	6,643	6,447			
Moelua	3,608	2,383			
Nenue	4,187	1,844			
Noho (Hogo)	1,576	1,199			
Oio	19,132	4,703			
Opelu	200,924	117,115			
Palani	16,465	4,047			

**Makaira ampla* (Called black marlin by Haw'n. Fish & Game Div. prior to July, 1962)

***Istiompax marlina* (Called silver marlin by Haw'n. Fish & Game Div. prior to July, 1962)

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	.32	227	23 .10	*	*	883	464 .53	1625	795 .49
Feb	35	.29	447	41 .09	2450	147 .06	966	466 .48	769	297 .39
Mar	2550	.10	750	500 .67	16	10 .63	530	220 .42	3920	1702 .43
Apr	400	.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	*	* *	1374	493 .36	771	264 .34	750	554 .74
Nov	22	.59	*	* *	1474	399 .27	*	*	1330	959 .72
Dec	14	.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

NUMBERS OF MARINE TURTLES INSPECTED IN THE HONOLULU AND
HILO MARKETS 1902-1904

	MONTH	HONOLULU, OAHU	HILO, HAWAII
Yr. 1902	January	6	-
	February	7	1
	March	19	-
	April	24	-
	May	13	-
	June	15	-
	July	14	-
	August	34	-
	September	23	1
	October	22	-
	November	11	-
	December	6	-
Yr. 1903	January	6	-
	February	9	-
	March	10	-
	April	18	-
	May	26	-
	June	29	-
	July	19	-
	August	11	-
	September	10	-
	October	13	-
	November	7	-
	December	10	-
Yr. 1904	January	9	-
	February	-	-
	March	9	16
	April	14	1
	May	24	2
	June	11	2
	July	8	1
	August	4	-
	September	82	-
	October	24	-
	November	35	-
	December	38	6

Compiled from The Commercial Fisheries of the Hawaiian Islands in 1903, by John N. Cobb.

Mariculture itself must have permit?

Restaurants selling "Handharvest" require to get permit?

MARICULTURE Must Report Monthly July 31, 1974
The Amount Remaining in Stock (INVENTORY)?

Dear George,

I went to the Dept. of Fish & Game and acquired what information they had. (see attached sheets) No record has been kept on # of pounds of turtle on hand prior to the 5/30 May 30th deadline for regulation 36. This sure seems strange to me; it really makes the regulation weak since a seller could claim to have had hundreds of pounds of turtle on hand and could continue to sell it for months. The dept. really has no recourse under the present conditions.

Anyway I also included the names and addresses of those who acquired permits for juvenile usage. Thought you might be interested in those also.

I picked up your order on campus last week. The people there were confused about the instructions on part of your order and therefore didn't fill that portion. I picked up 3 prints (they only charged you for 2) and one slide. Please check with the department about the others.

Hope everything is going well for you. Things here are going well. See you in mid-August.

Janet

P.S. I have included blank forms for the sale and taking of turtles. Thought you might be interested. over →

7/31/74 observations on peck pen
animals can be found on page
113 of the turtle data book. (out on
the dock)

Pai

as of 7/30/75

Proces of
light-clip on?

PERMITS FOR THE SALE OF MARINE TURTLE PRODUCTS
expiration: 6/30/75

Chart House (Kenny Ching) 5/31/74
1765 Ala Moana Blvd.
Honolulu, Hawaii ~~3,901 lbs~~
941-6660

Dot's in Wahiawa 6/18/74
130 Mango Street
Wahiawa, Hawaii
622-4115 Home: 622-4905

Molokai Fisherman's Association 6/4/67
(William Kalajai)
P. O. Box 889
Molokai
553-5112 Home: 558-8297

Pineapple Hill Resort Ltd. 6/17/74
(Jerold Macdonald)
Lahaina, Maui
669-6119
3,901 lbs June 1, 74

Larry L. Rawlins no issuance date
P.O. Box 346
Molokai
553-5561

Sept 6, 1974

12 issued
3 expired

Nick's Fresh Market -
Maui
9 acting
2 delinquent returns

PERMITS FOR THE TAKING OF GREEN SEA TURTLE FOR HOME CONSUMPTION
expiration: 6/30/75

62 issued
29 expired
1 reported
to
300 lbs
Kaneohe
Bay

Harry K. Aki 7/6/74
608 Vineyard. Apt. 305
Oahu

Peter Connally 7/01/74
#9 Noholani Street
Haiku, Maui

Michael Buck 6/14/74
7219 Upaekaa Street
Oahu

Bernard Duarte 7/22/74
RR #1
Kapaa, Kauai

Chanks Busby 6/7/74
P.O. Box 245
Molokai

Nichols A. Farin 5/30/74
Box 252
Honolulu, Oahu

George Carlson 5/31/74
2234 Booth Road.
Oahu

Gary Galihier 7/01/74
59-175 C Ke-Mui Road
Sunset Beach, Oahu

Robert Carroll 7/01/74
P.O. Box 157
Kaisalapuu, Maui

Bernard Goo 7/05/74
4732 Pelehu Road
Kapaa, Kauai

Charles Chapman 6/24/74
45-656 Anoi Road
Kaneohe, Oahu

Francis Hekekia 5/30/74
624 A 12th Ave.
Kaimuki, Oahu

Jeffrey Choi 6/05/74
68 Terrace
E. Hawaii, Hawaii

Dennis Heranska 6/28/74
3290 Ilima St.
Kauai

Winston Chun 7/05/74
67-389 Mikea Circle
Waiāluu, Oahu

Reuben Kaio 7/19/74
66-182 C Waikenshile Rd.
Haleiwa, Oahu

James Kamsi 909 Aipo Street Honolulu, Oahu	6/15/74	Albert Oshita RR1 Box 386 K Kapea, Kauai	6/24/74
William Kamskeesina P.O. Box 1042 Hainslu, Molokai	??	Alvin Pacheu Kiliua, Kauai	7/01/74
Samuel Laolulo 2052 10th Ave. Oahu	6/15/74	Lawrence Park P.O. Box 57 Kusui	7/18/74
Bruce Koyanagi P.O. Box 531 Kelaheo, Kauai	7/02/74	Larry Rawling P.O. Box 346 Molokai	6/04/74
Ted. Lauglang 99-252 Oheoloing Pl. Aiea, Oahu	7/03/74	Edward Robello 67-233 E Kiapoho St. Weilua, Oahu	7/01/74
Joseph Mansba P.O. Box 283 Kaua, Molokai	6/24/74	Anthony Romo P.O. Box 575 Kolos, Kauai	7/05/74
Incarnation Manstao 48-009 Kam Hwy. Kaneohe, Oahu	7/03/74	Leon Severs 1650 Kansau St #816 Oahu	7/01/74
Richard Matsumoto RR1 Box 240 Lehua, Kauai	7/03/74	Ronny Tanihiro 4649 Lehua St. Kipea, Kauai	7/19/74
Tony Mc Morris 448 Pualani Street Wailuku, Maui	7/19/74	Eric Wong 1339 Makaikoa Oahu	7/15/74
Clarence Mederios 2017 Makumano Honolulu, Oahu	6/06/74	Eugene Wong 1130 ??? Oahu	7/07/74
Eric Melin 167 Mahealani Pl. Oahu	7/18/74	Glen Yamashita 51-264 Kam Hwy. Kaaawa, Oahu	7/17/74
Harold Miller P.O. Box 1618 Lahina, Maui	7/18/74		
Sedao Morikawa 768 B Panaewa Lahina, Maui	7/06/74	Peter Connolly P.O. Box 585 Haiku, Maui	
Raymond Naihe P.O. Box 164 Hana, Maui	7/02/74	Mike Raymond P.O. Box 164 Hana, Maui	
Roy Nakatsu 67-644 Kane Pl. Oahu	7/19/74		

EXPIRED PERMITS
6/30/74

FG _____

Division of Fish and Game
Department of Land and Natural Resources
State of Hawaii

No. _____

PERMIT FOR THE SALE OF MARINE TURTLE PRODUCTS

In conformity with Regulation 36 of the Division of Fish and Game, a marine turtle sale permit is hereby issued to _____.

(Firm or Individual Name)

providing for the possession and sale of marine turtles or products thereof acquired prior to the effective date of this regulation subject to the following conditions:

1. This permit is valid for the period beginning with the date of issuance and ending June 30, 19____.
2. This permit is not transferable or assignable and must be visibly displayed where the marine turtles or their products are to be sold.
3. The permittee shall accurately complete a Marine Turtle and/or Product Inventory Report that describes and tallies all marine turtles or products thereof purchased, sold and/or remaining in possession of the permittee on forms provided by the Department of Land and Natural Resources and return the filled form to the Division of Fish and Game no later than 10 days following the end of each month.

THIS MARINE TURTLE SALES PERMIT WILL BE CANCELLED IF THE PERMITTEE FAILS TO COMPLY WITH ANY OF THE CONDITIONS LISTED ABOVE.

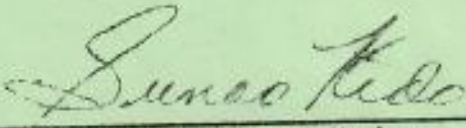
I certify that I have read the conditions of this permit and provisions of Regulation 36:

Signature of Permittee

Address: _____

District: _____ Island: _____

Phone: Business _____ Residence: _____



Chairman and Member
Board of Land and Natural Resources

By: _____
Issuing Agent

Issuance Date: _____

PERMIT FOR THE TAKING OF GREEN SEA TURTLE FOR HOME CONSUMPTION

In conformity with Regulation 36 of the Division of Fish and Game, a green sea turtle permit is hereby issued to _____

(Print Name) Last First Middle

for the taking of green sea turtles for home consumption subject to the following conditions:

1. This permit is valid for the period beginning with the date of issuance and ending June 30, 19____.
2. This permit is not transferable or assignable and must be carried by the permittee while engaged in taking and transporting green sea turtles.
3. Turtle fishing shall be conducted only in the waters surrounding the eight major islands (Hawaii, Maui, Kahoolawe, Lanai, Molokai, Oahu, Kauai and Niihau).
4. The permittee shall not collect any turtle from any of the following areas:
 Hanauma Bay, Oahu
 Hawaii Marine Life Refuge (Coconut Island in Kaneohe Bay), Oahu
 Kealahou Bay, Hawaii
 Ahihi-Kinohiwa Natural Area Reserve, Maui
 Northwestern Hawaiian Islands (Nihoa to Kure)
 Any area that may be designated as a Marine Life Conservation District, Natural Area Reserve, marine sanctuary, etc., where fishing in general is prohibited.
5. Only turtles with upper shell lengths of 36 inches or more (straight line measurement) may be taken.
6. A turtle may be gutted and/or cut up into not more than five parts with one of the parts being the whole upper shell with the entire head attached, and all parts shall be kept together until the permittee leaves the shore area for his home.
7. The permittee shall not use nets for the taking of turtles.
8. The permittee shall accurately complete and submit the Green Sea Turtle Catch Report to the Division of Fish and Game no later than 10 days following the end of each month, regardless of whether he has or has not taken any green sea turtle during the month.

THIS GREEN SEA TURTLE PERMIT WILL BE CANCELLED IF THE PERMITTEE FAILS TO COMPLY WITH ANY OF THE CONDITIONS LISTED ABOVE.

I certify that I have read the conditions of this permit and provisions of Regulation 36:

 Signature of Permittee

Samuel Kato

 Chairman and Member
 Board of Land and Natural Resources

Address: _____

By: _____
 Issuing Agent

District: _____ Island: _____

Phone: Business: _____ Residence: _____

Issuance Date: _____

TESTIMONY PRESENTED BY GEORGE H. BALAZS ON SEPTEMBER 21, 1973,
CONCERNING REGULATION 36 WHICH RELATES TO THE PROTECTION OF MARINE
TURTLES IN HAWAIIAN WATERS

Although the plight of marine turtles has been widely recognized in other areas of the world, a concern for these animals in Hawaiian waters has been slow in coming. As no Hawaii State regulations exist for the protection and perpetuation of marine turtles (other than the outlawing of firearms for harvesting and the prohibition of the sale of speared animals) proposed protective measures offered by the State Fish and Game Division represent positive action to ensure the continued viable existence of our marine turtle colony. In the words of Dr. Archie Carr, the world's foremost authority on marine turtles:

"If things are left as they are, the commercial sea turtle industry seems certain to go on cynically mining to exhaustion its sources of supply."

In my opinion, sufficient knowledge is presently at hand to warrant the utmost concern for Hawaiian turtles. I have arrived at this conclusion after investigating various aspects of Hawaii's marine turtles over the past two years. Although initially only involved in research on the captive rearing and nutritional aspects of these animals at the Hawaii Institute of Marine Biology, I soon became increasingly concerned about the welfare of the natural populations. Little effort was being directed toward determining the status of this resource in Hawaii and evaluating whether or not its distribution and numbers were being reduced. In addition to examining our own situation, I have also researched the status of marine turtles at other localities in order to learn what was being accomplished to slow their decline.

I would like to present some of the important aspects of this information which I have collected in order to justify the enactment of the regulations which are being proposed. In general, my discussions will deal with the following topics: 1) the present status of the three species of turtles found in Hawaiian waters, 2) the conservation laws and regulations which protect marine turtles that are currently in effect in other States and countries, 3) the recommendations for the State of Hawaii which have been offered by qualified marine turtle biologists familiar with our situation, 4) the results of research which was conducted during this year's breeding season at French Frigate Shoals in the Hawaiian Islands National Wildlife Refuge, and 5) the results of studies which I have conducted on turtle catch statistics compiled by the State Fish and Game Division.

Summary of Significant Information Relating to
Marine Turtle Regulation 36

G. H. Balazs

1. Three types of marine turtles are found in Hawaii; two are on the Endangered Species List (hawksbill and leatherback) and one (green) is officially listed throughout the world as "depleted."
2. Hawaii has the largest and last remaining green turtle colony in the United States.
3. No State laws presently exist to protect or perpetuate Hawaii's turtles.
4. Many countries and States are already aware of the threatened status of marine turtles and have implemented conservation measures.
5. Within recent history nesting took place on several of the major Islands, however the only nesting site left today is at French Frigate Shoals (approximately 480 miles NW of Honolulu).
6. Three prominent marine turtle biologists have expressed great concern for our unique turtle colony.
7. Recent intensive research at French Frigate Shoals has shown the total green turtle breeding population to be less than 1,100 individuals. An earlier estimate made in 1968 placed the size at between 2,600 and 5,200 animals.
8. Green turtles reach sexual maturity when they are between 33 and 36 inches (mean wt. 210 lbs) straight line upper shell length. Nesting green turtles at French Frigate Shoals ranged from 33 to 41 inches.
9. Studies on turtle catch statistics revealed that: 1) extremely large increases have occurred in pounds of turtle caught over the past ten years; this appears to have followed increases in tourism; 2) the mean weights of turtles taken is significantly below the size at which sexual maturity occurs (107 vs 210 lbs); 3) during 1972 only six people in the entire State hunted turtles for profit; the most earned by any one person was \$5,003.
10. Hawaiian turtles will continue to be subjected to increases in exploitation during coming years unless the personal gain incentive is removed.
11. Based on all available information, it is highly unlikely that Hawaii's green turtle colony can remain viable if the present exploitative pressures are allowed to continue.

Before closely examining each one of these topics, it may prove beneficial to briefly state some of the more important facts of the life history and biology of marine turtles. Since the major portion of my testimony will deal with the green turtle, the facts pertain specifically to this species. However, in general the other types of marine turtles exhibit most of these same traits. To summarize then, green turtles: are air-breathing, salt water reptiles; reach sexual maturity sometime between 6 to 13 years of age; weigh as much as 250 lbs and measure 33 to 36 inches upper shell length when first reaching sexual maturity; reproduce only once every two to four years; migrate long distances from feeding areas to nesting beaches for reproduction; lay several clutches of 100 eggs each within each nesting season; lay eggs on the same beaches during subsequent nesting seasons and are not known to change places of reproduction; exhibit high mortality (at least 99 percent) during the first year of life; have few predators except large sharks and man after reaching adult size; have not been successfully restocked by releasing young or transplanting eggs in depleted areas; are slow to recover from overexploitation; were formerly abundant in many areas of the world but have been subsequently decimated by indiscriminate hunting; and can provide benefits to man if managed wisely. Keeping these basic facts in mind, I would like to proceed and discuss each of the major topics which I have outlined, starting with the present status of the three types of marine turtles that are found in Hawaiian waters.

Of the five genera (or major types) of marine turtles which exist in the world today, only three are represented around our islands. These include the Pacific green (Chelonia sp.), the hawksbill (Eretmochelys sp.) and the leatherback (Dermochelys sp.). The hawksbill and the leatherback are only infrequently seen. Both of these animals are vanishing species throughout the world and do not occur in large numbers at any one location. The hawksbill has been commercially decimated for its laminae or "tortoise-shell," which can be made into fine polished jewelry. Numbers of leatherbacks have been drastically reduced due to the destruction of nesting habitats and to the taking of eggs for food in lesser developed countries. Both of these animals are included in the United States' List of Endangered Foreign Fish and Wildlife. That is, they are

"in immediate danger of extinction and their continued survival is unlikely without the implementation of special protective measures."

Under international agreement, these animals or any products derived from these animals may not be imported into the United States or moved between cooperating countries. Because this Federal law deals only with international transportation, and because no Hawaii State law presently exists to protect these animals, both the endangered hawksbill and leatherback can now be killed in Hawaiian waters without violating any regulation.

Hawaii's third type of turtle is the Pacific green. Green turtles are officially listed by the International Union for the Conservation of Nature (the recognized world organization for conservation) as 'depleted.' That is, although they still occur in numbers adequate for survival, the animal is "although they still occur in numbers adequate for survival, the animal has been depleted considerably and continues to decline at a rate which gives cause for serious concern."

Several kinds of green turtles (e.g., Chelonia mydas, Chelonia agassizi) have been recognized in different areas of the world. Although more taxonomic work needs to be conducted, there is reason to believe that green turtles found in the Hawaiian Archipelago are genetically unique from those of other geographic locations.

Next I would like to review some of the conservation laws that are now in effect in other countries and states. Concern by private citizens and governments throughout the world over the dwindling numbers of marine turtles and the continuing increases in turtle harvests has led to the passage of much needed conservation measures. Whether the protection afforded in each case is adequate and soon enough in coming, only time will tell. A list of some of the countries which protect marine turtles and a brief abstract of each law follows:

Trust Territories: Complete protection for eggs and all sea turtles less than 26 inches in carapace length.

Kingdom of Tonga: Complete year-round protection for eggs and for turtles with a carapace length of less than 35 inches. Protection for all turtles of all sizes between November and March. Complete protection for leatherbacks of all sizes at all times.

Fiji Islands: Complete year-round protection for eggs and for turtles with a carapace length of less than 35 inches.

Panama: Full protection for green turtles.

Ascension Island: Full protection for all turtles and eggs.

British Indian Ocean and Seychelles Islands: Complete protection for turtles and eggs.

Europa Island (France): Full protection for all turtles and eggs.

South Africa: Full protection for all sea turtles and eggs.

Queensland, Australia: Full protection for all sea turtles and eggs.

Tahiti (French Polynesia): Sale of sea turtles prohibited in all of French Polynesia.

States in the U. S. mainland which have seen fit to protect marine turtles include the following:

New York: No hawksbill, Atlantic ridley or leatherback turtle may be imported, transported or sold.

Delaware: Illegal to possess, transport or sell any hawksbill, Atlantic ridley or leatherback turtle.

North Carolina: Unlawful to take, disturb or destroy any sea turtle or eggs at any time during the months of May, June, July, August and September.

Connecticut: Hawksbill turtles or any part thereof may not be sold or offered for sale.

South Carolina: Unlawful to kill, offer for sale or sell any sea turtle or eggs.

- Florida:
- a) Unlawful to take, kill or possess a green turtle from the east (Atlantic) coast of Florida.
 - b) Unlawful to take, kill or possess any other species of sea turtle from the east coast of Florida, during the months of May, June, July and August.
 - c) Unlawful to take, kill or possess any turtle from the west coast of Florida except those in territorial waters having a carapace length of more than 26 inches.
 - d) Unlawful for any person to take, kill or possess any green turtle from Monroe county (Florida Keys) unless such turtle has a carapace length of more than 41 inches.

Georgia: Total protection, sea turtles or eggs may not be taken at any time.

Texas: Unlawful to take, kill or disturb any sea turtle or eggs in or from the waters of the State.

California: Unlawful to import into the State for commercial purposes, to possess with intent to sell or to sell any part or product of any sea turtle.

It might be valuable to point out at this time that Hawaii has the responsibility of safeguarding the largest remaining colony of green turtles left in the United States. Although loggerheads (Caretta sp.) and several other species of turtle are still frequent nesters in a few of the Southern states, very few green turtles are found nesting. One estimate places the total number of greens utilizing mainland U. S. beaches during recent years at less than 50 individuals. Juvenile green turtles are sometimes seen along Gulf coasts, however these are only migrant visitors. Besides having the largest green turtle colony in the U. S., Hawaii has the only one in the world that can be protected and managed under a single government's jurisdiction at both the feeding and breeding grounds. Although Hawaii's breeding grounds are Federally protected (Hawaiian Islands National Wildlife Refuge), no protection is afforded in the feeding grounds. The practice of only safeguarding a turtle's breeding grounds while allowing unchecked exploitation to occur in the feeding areas is no longer sufficient for adequate conservation. Because Hawaii's green turtles are being subjected to substantial increases in commercial exploitation, there may now be sufficient justification for placing this animal on the Department of Interior's United States' List of Endangered Native Fish and Wildlife.

Several recognized specialists on marine turtles have examined Hawaii's situation. Dr. Archie Carr of the University of Florida and Dr. Harold Hirth of the University of Utah have both visited the Hawaiian Islands and made preliminary investigations on our turtle populations. Dr. John Hendrickson of the University of Arizona studied Hawaii's turtles while serving as Director of Oceanic Institute here on Oahu. All three of these authorities are members of the I. U. C. N. Marine Turtle Specialists Group. This group is composed of ten members from various countries and are dedicated to the conservation and better understanding of the world's marine turtles. Recommendations which have been offered by these gentlemen include the following:

Dr. Harold Hirth: In 1971 a report (FAO/UN No. 482/71) on marine turtle resources in the Pacific was prepared by Dr. Hirth, then a consultant for the United Nation's Fisheries Development Agency. In the section of this report that dealt with turtles in the Hawaiian Islands, it was recommended that "The sale of stuffed turtles of all sizes should be prohibited and turtle meat and soup be eliminated in hotels and restaurants." Further recommendations indicated that in-depth studies throughout the entire Hawaiian Archipelago were necessary in order to more fully understand the dynamics of this colony.

Dr. John Hendrickson: In 1969 Dr. Hendrickson presented a paper on Hawaiian turtles to a meeting of the Marine Turtle Specialists Group in Morges, Switzerland. In this paper it was pointed out that there were no laws governing the taking of marine turtles around the major islands and that increases in the tourist industry were producing greater demands for exotic luxury foods such as turtle steak. Further it was stated that while "green turtles are no longer considered common enough to support full-time professional net fishermen, every Tom, Dick and Harry who happen upon a turtle have the strong incentive to capture it. A 200 lb turtle represents perhaps \$50 plus a good meal for family and friends, in addition to a shell to keep or sell." It might be added that the same turtle now sells closer to \$200, thus making the personal gain incentive all the more attractive. Dr. Hendrickson also stated that calculated values for the predation on green turtles "conformed with the subjective impression that Hawaiian turtle populations are over-exploited, under-protected and declining at a significant rate." In addition, it was noted that the State Fish and Game Division would probably encounter difficulties in trying to protect marine turtles because the 'local citizenry included a large proportion of people who were closely tied to the sea by culture, custom and emotion, and that in this regard they would be jealous of restrictive regulations.'

Dr. Archie Carr: In January of 1973 Dr. Carr indicated to me that he personally "would like to see a complete moratorium on the taking of all sea turtles throughout the Hawaiian Islands until a careful survey of breeding, feeding and basking populations could be made." He also stated that he was very glad to see an awakening of interest in Hawaiian sea turtles and hoped that the efforts to protect them would be given the support needed.

The need to do further in-depth research on Hawaiian turtle populations was stressed by each of the aforementioned authorities. I would like to note that a request (HB 1635) by Representative Anson Chong for funds necessary to conduct such research presently resides in the State Legislature. Passage in the House has already been effected, and during the next session the Bill's approval in the Senate seems very likely. It is apparent that many of our State legislators are already aware of Hawaii's responsibility for safeguarding our country's last green turtle colony.

My next area of discussion will be a presentation of some of the significant results obtained from scientific research which I conducted in cooperation with the U. S. Fish and Wildlife Service during this years green turtle breeding season at French Frigate Shoals. It may be beneficial to first briefly review our present knowledge on the breeding status of green turtles in the Hawaiian Archipelago. Some of the important points are as follows:

- 1) There are no longer any nesting sites left on any of the major Hawaiian Islands. As short a time as 60 years ago there existed one major nesting site and at least five sites of lesser importance. Today there are none.
- 2) The only remaining nesting areas are located in the Northwestern Hawaiian Islands, specifically the Hawaiian Islands National Wildlife Refuge. Within this Refuge, several small sand islands at French Frigate Shoals account for 95 percent of all green turtle nesting.
- 3) Research carried out by U. S. Fish and Wildlife personnel has revealed that the turtles tagged at French Frigate Shoals migrate back to the major Hawaiian Islands. Tag returns have been obtained from around five of the inhabited Islands (Kauai, Oahu, Molokai, Maui and Hawaii). These results are in agreement with work conducted in other areas of the world which has demonstrated that green turtles migrate long distances to nesting beaches and subsequently return to feeding areas where the major portion of their life is spent. It can therefore be concluded that French Frigate Shoals is the only remaining breeding grounds for the feeding population which inhabits Hawaii's major islands.

One of the more important questions that has been raised concerning our green turtle colony is 'what is the size of the breeding population?' In other words, how many sexually mature individuals are there to contribute offspring for maintaining or increasing numbers of the total population? No censusing work of this nature had been conducted at the nesting sites through entire breeding seasons due to the limited number of Fish and Wildlife personnel and to necessary involvement with many other threatened species which utilize the Refuge islands.

Our work at French Frigate Shoals accomplished this goal, although it will be wise to do repeated studies in coming years. Our work concentrated on East Island, an 11 acre sand islet within the Shoals. Previous observations by

Fish and Wildlife personnel indicated that East Island hosted the greatest number of nesting turtles of the ten sand islands present. Our work confirmed this observation to be correct. A total of 67 females nested on East Island during the study. Numbers nesting on the other islands were determined by making surveys every second day and counting nesting pits. From these data, it was possible to make a valid estimate of the total breeding population (both males and females) using French Frigate Shoals (assuming a three-year breeding cycle, an equal sex ratio, and allowing for a very liberal 20 percent addition to account for animals that may have been missed either before or after the study was conducted.) The total value arrived at came to 1,074 animals. An estimate made in 1968 by Dr. Hendrickson which was based upon all available data at the time placed the French Frigate Shoals breeding population at between 2,600 and 5,200 animals. In view of our more recent 1973 study it would appear that drastic reductions have occurred in the breeding population, although there is always the possibility that the earlier estimates were in error. Whatever the explanation, the fact remains that any turtle colony with a total breeding population of only slightly less than 1,100 individuals that is being subjected to increasing commercial exploitation is most definitely in an insecure position.

In addition to census information, valuable data on the size distribution of the Hawaiian nesting population was obtained. Our work revealed that the smallest nesting turtle measured 33 inches in straight line upper shell (carapace) length, while the largest individual was 41 inches. Dr. Archie Carr's 17 years of tagging work in the Caribbean has shown that the majority of green turtles reach sexual maturity at a shell length of between 33 and 36 inches. Research by U. S. Fish and Wildlife personnel has shown that Hawaiian turtles between 33 and 36 inches average about 210 lbs in weight. It will be very important to keep these two points in mind when I discuss Hawaii's catch statistics, particularly that portion dealing with the mean weight of the turtles being taken for commercial purposes.

Licensed fishermen in Hawaii are required by law to report to the State Fish and Game Division all turtles that are sold. Information contained in these catch reports include numbers caught, pounds caught, pounds sold and value, method of capture and area where taken. Turtles that are not sold do not have to be reported. In an effort to learn as much as possible about the commercially taken turtles, all catch data on file at the State Fish and Game Division was compiled and analyzed. Mr. Michio Takata was kind enough to make available all of these records for my study. Mr. Randal Chau of the University's Marine Options Program spent many hours over the past six months under my direction tabulating pertinent data. These statistics greatly added to our knowledge of turtle populations around the major Islands. Such information is difficult to come by since no congregated nesting presently exists and animals are dispersed over many miles of coastal water.

Although some large yearly catches were reported in the late 1940's and 1950's, trends displayed since 1963 indicate that more turtle is now being taken than ever before. For the calendar year 1963, a low of 380 lbs was reported while in 1972 it rose to 25,583 lbs. Up to date information shows that for the first 6 months of 1973 the reported catch has already exceeded 14,900 lbs indicating that a record high will again be established for this year. It is

interesting to note that the pounds of turtle taken since 1963 follows the increasing trends of tourism, and that much of the incentive to exploit turtles is provided by restaurants and hotels that depend on tourism for a large portion of their business. If this is the case, it then logically follows that a few fishermen are eroding a unique Hawaiian resource to provide an exotic luxury food for short term mainland visitors. It is unfortunate that those to suffer the most from this practice will be the low income, less fortunate residents of Hawaii. The turtle that could have been captured for home use to provide additional meat will now be all the more difficult to find.

Several months ago, in the course of discussing the drastic increases in turtle taken in recent years, it was stated that 'the larger number of animals killed proved that the population was in no danger since they were so abundant.' It was my feeling that such an argument was the reasoning of the Buffalo hunter who felt that the next large herd was always over the next hill. The low reproduction rate of turtles makes them quite different from fish and other marine organisms that spawn hundreds of thousands of young each year.

Since the reports submitted by commercial fishermen are uncheckable and rely solely on individual integrity, there is always the possibility of non-reporting or under-reporting. For example, for the years 1957 through 1969 absolutely no turtle catch reports were given for the Island of Kauai. During 1970, 1971 and 1972, 830, 855 and 200 lbs, respectively were reported for Kauai. One wonders just how much of the true catch these values represent since more than several restaurants on Kauai serve turtle steak. One also wonders how many pounds the sport fishery and 'home' catch represent. In Dr. Hendrickson's presentation to the I. U. C. N. Marine Turtle Specialist Group it was pointed out that the home catch plus the unlicensed commercial catch probably far exceeded the reported commercial catch in Hawaii.

Of particular interest from the studies of catch statistics were the mean weights of the animals taken commercially. For the recent high poundage years of 1969 through 1972, mean weights for turtles were 114, 135, 131 and 150 lbs, respectively. For the first 6 months of 1973, turtles averaged 107 lbs. These data show that many of Hawaii's turtles are being removed from the population before they ever have a chance to become sexually mature and reproduce. Green turtles that weight 107 to 150 lbs will measure between 25 and 29 inches in upper shell length. As I emphasized earlier, nesting first takes place when animals are a minimum of 33 to 36 inches. The size restriction placed in the proposed Regulation 36 will give our turtles the opportunity to grow to adult size and reproduce before they are subjected to hunting by man.

The question has been presented more than once that 'if we eliminate commercial fishing for turtles would this not put a lot of people out of work and take away their means of support?' An investigation of this aspect revealed the following facts: 1) In 1970 there were only eight fishermen in the entire State responsible for all the commercially taken turtle. The most earned by one person was \$2,765 while the other seven averaged \$321 (range \$17 - \$992) each. For 1971 there were also eight fishermen,

the most earned by one person being \$6,350 while the other seven averaged \$521 (range \$25 - \$2,684) each. During 1972 only six fishermen in the State captured turtles for profit and only one made slightly more than \$5,000 while the rest averaged \$1,116 (range \$28 - \$2,899). From this information it is apparent that turtle taking is mainly a part-time business.

One other point of interest is that some of the old time turtle fishermen who have quit the business have noted the reduction in numbers that turtles have undergone in Hawaii. As an example, in 1968 one fisherman wrote on a catch report 'that between 1948 and 1950 he used to take at least 100 turtles in four to five days in the feeding grounds between Molokai, Lanai and Maui - but for some reason there were no turtles there now.'

In conclusion I would like to ask all fishermen to endorse the proposed turtle regulations for the benefit of the species. Since the coming of man over 230 vertebrate species have become extinct; half of these have been lost in the past 100 years. Extinction is a very absolute thing, because once the animal is gone, it is gone forever. We must learn to adopt a philosophy that attempts to get animals off the Endangered Species List, not onto it.

To the restaurants that have provided the incentive for the exploitation of Hawaiian turtles, I would like to issue a special plea. Consider the facts which I have presented and set your own individual self-interests aside and willingly support this ban on the sale of turtle meat. Replace the turtle on your menu with other equally attractive and exotic luxury foods, such as our locally grown Malaysian prawns. Finally, I would like those restaurants that have benefited from the exploitation of Hawaii's green turtles to consider giving assistance to research on the captive rearing of green turtles. Help support our studies so that one day you may again serve turtle steak - steak that is obtained from domestically raised animals specifically for this purpose.

