

SEA TURTLES - CORRESPONDENCE

HIMB OUTGOING

1973-1974 G.H. BALAZS



AMERICAN OVERSEAS

STOCK NO. 10

WESTERN UNION INTERNATIONAL, INC.

CABLEGRAM RECEIVED BY TELEPHONE

IN HONOLULU - PHONE 537-6311 • IN HILO PHONE - 9613422

E. A. GALLAGHER, PRESIDENT

@ PER WORD

..... 27 WORDS

.....
.....

Please Pay
this amount

EM

LR EVANS

BOX 8195

HONOLULU

96825

946 1768

DATE & TIME FILED

1974 APR 30 PM 9 30

MESSAGE NUMBER

LT SENATOR MASON
LEGISLATIVE BUILDING ROOM 413
ALBANY (NY)

BILL 5242A GIVES SEA TURTLES AND OTHER SERIOUSLY ENDANGERED
WILDLIFE COMPREHENSIVE AND NECESSARY PROTECTION.
PLEASE HELP ENSURE EARLY PASSAGE BEFORE POPULATIONS ARE
ENTIRELY LOST

CONFIRMATION

MARK ALL YOUR INTERNATIONAL MESSAGES "VIA WUI" — THANK YOU FOR YOUR PATRONAGE.

REA Global Telegram

Am 30 2 on 11/74

746

ZCZC LTB9999

Dest. And / X HL CO. HRHU 071

'11

Confirmation Copy of Telephoned Message

SENATOR EDWYN E MASON LEGISLATIVE OFFICE BLDG ROOM 413
ALBANY NEW YORK

AS A MARINE BIOLOGIST INVOLVED IN RESEARCH AND CONSERVATION OF SEA
TURTLES I COMMEND AND CONGRATULATE YOU FOR PROTECTING THESE CRITICALLY
ENDANGERED REPTILES IN BILL 5242A YOUR ACTIONS WILL RECEIVE ~~REMARKS~~ SUPPORT
AND PRAISE OF SCIENTISTS THROUGHOUT THE WORLD I ~~REMARKS~~ RESPECTFULLY
URGE YOU TO RESIST ~~THE~~ PRESSURES BY FOREIGN COMMERCIAL FARMING INTERESTS
TO WEAKEN AND DELAY THIS MEASURE ALOHA

GEORGE A BALAZS

CHG HAWAII INSTITUTE OF MARINE BIOLOGY PO BOX 1346 KANEHOE 96744 PH 2476631

GF/CFM

Thank you for your patronage. Call again.

RCA Global Telegram

Area 30 - 2 on 11/71

746

ZCZC LTB9999

Dest. And ~~X~~ ^{CO.} HL ARHU 071

71

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GEORGE A BALAZS

CHG HAWAII INSTITUTE OF MARINE BIOLOGY PO BOX 1346 KANEHOE 96744 PH 2476631

GF/CFM

Thank you for your patronage. Call again.

March 6, 1974

Mr. Chick Durbin
Hilo Marine Options Program
Life Science 21
University of Hawaii, Hilo
Hilo, Hawaii 96720

Dear Mr. Durbin:

Donna Noborikawa has suggested that I contact you in reference to information concerning Waikaka ilio Bay which is located approximately 3 miles north of Kawaihae Harbor. My interest in this area stems from unsubstantiated reports that during certain times of the year marine turtles are plentiful. As you are probably aware, I have been conducting studies on the life history of the green turtle in the Hawaiian Archipelago. In addition, efforts are underway to obtain some form of meaningful protection for these animals as considerable information now exists to suggest that depletion has and continues to occur. If you or any of the MOP students can provide specifics on Waikaka ilio, I would be most appreciative. If in fact turtles are abundant at this site, due to algae and/or other factors, it might be wise to keep the information semi-confidential. Last year we used the vessel VALIANT MAID to engage in turtle tagging activities (with nets) along the South Kohala coast. I subsequently learned that a big Island turtle fisherman monitored our progress and returned to "harvest" animals at our best locations. I certainly wouldn't want this to be the case for Waikaka ilio should it be a productive site.

I have enclosed several articles on marine turtles which your MOP students may find interesting. I would be most anxious to communicate with individuals who are interested in turtles and, in particular, would be motivated to carry out field work. Additional data are needed on 1) areas most commonly frequented by turtles 2) former (or present) nesting beaches 3) types of algae eaten 4) frequency of both sport and commercial turtle fishing 5) restaurants and hotels selling turtle and 6) size distribution. A great deal of knowledge could probably be gathered by talking with older residents who have fished in Hawaii for a number of years. In this respect a portion of the surveys would

Mr. Chick Durbin
March 6, 1974

Page 2

actually be more sociological than biological. In any event, interesting projects could be formulated provided that the student interest is present. I look forward to hearing from you at your earliest convenience. Thank you in advance for any information or assistance you are able to provide.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:ah

cc: Kelvin Char
Donna Noborikawa

May 26, 1974
P.O. Box 1346
Kaneohe, Hawaii 96744

Owner/Manager
Philippine Handicrafts
Shop 1144 Ala Moana Center
1450 Ala Moana Blvd.
Honolulu, HI 96814

Dear Sirs,

As an individual who has been actively involved in the conservation and research of sea turtles, I consider it unfortunate that your shop continues to deal in products derived from the endangered Hawksbill turtle. I have noted in recent days your new window display which reads "NEW ARRIVAL!! TURTLE SHELL BRACELETS". Considering that you have been a purveyor of large "stuffed" Hawksbills for some time, this new addition to your line of prohibited Hawksbill imports only further adds to your destruction of the species.

As a member of Hawaii's business community at Ala Moana Center who frequently comes into contact with visitors from many countries, certainly you have a responsibility to protect wildlife that has been specifically designated as endangered. Aside from the legal and moral responsibilities, I should think that it would be to your advantage to be sensitive to such issues in order to maintain proper public relations in our island community.

I hope that you will give serious consideration to terminating the sale of the items I have mentioned.

Sincerely,

George H. Balazs

cc M. Dillon, U.S. Bureau of Sport Fisheries and Wildlife
E. Kridler, " " " " " " "
D. Raney, Sierra Club
W. Gagne, Audubon Society
General Manager, Ala Moana Center



University of Hawaii at Manoa

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

March 12, 1974

Editorial Staff,
American Scientist
345 Whitney Avenue
New Haven, Connecticut 06511

Dear Sirs:

Dr. Ehrenfeld has presented some very pertinent facts concerning the interrelationship of commercial green turtle culture and conservation of the species. Promotional brochures which have been widely distributed by the proponents of commercial farming (including security brokers offering stock) have imparted a dangerous false sense of security in the general public as to the safety of Chelonia. Commercial turtle farming as it exists today is not founded on a sound biological basis. No control over the life cycle exists, mortality from stress and disease is significant and an understanding of the nutritional requirements is lacking. The one major advantage to turtle farming has been the availability of eggs from certain natural nesting beaches, a point which advocates have seen fit to exploit by removing large numbers for their own personal gain.

Since the writing of Dr. Ehrenfeld's article, 19 captive females have nested on an artificial beach at the Grand Cayman farm. This event has been hailed as the salvation of the green turtle and offered as sufficient reason for allowing "farmed" products to be extensively marketed. Seldom mentioned concerning this success in captive egg production is the fact that all 19 of the animals involved had been captured from the wild as mature adults. No reproductive successes have been experienced with animals reared at the facility.

Commercial culture which is dependent upon endangered natural populations and at the same time seeks to expand markets and popularize products can only act to hasten a species down the road to extinction.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

May 20, 1974

Dr. Robert Bustard
Department of Biology
Australian National University
Canberra, A.C.T.
Australia

Dear Dr. Bustard:

Paul Maderson of Brooklyn College at The City University of New York has suggested that I contact you concerning my interest in shell molting in marine turtles. You may possibly have further knowledge to explain an incident which I will relate to you. On March 24, 1973 an adult female green turtle weighing 285 lbs and measuring 36 inches in carapace length was tagged and released off the island of Kauai. This animal had been held for at least four and possibly as long as ten years in a large volume sea water tank at the Waikiki Aquarium. On December 9, 1973 the turtle was recaptured by a scuba diver in 65 feet of water off the island of Lanai. As the enclosed photograph partly illustrates, large and relatively thick sections of laminae were observed to be peeling off the carapace and new shell could be seen underneath. Previous experience with marine turtles, both in captivity and on natural nesting beaches, has led me to believe that only small thin flakes normally flake off. Since the animal was captured by hand by an individual interested in turtle conservation, it was subsequently released unharmed. Although a scale was not available, it was estimated that the recapture weight did not exceed 240 lbs. Perhaps difficulties were experienced in foraging under the wild conditions thus the apparent loss of weight.

I would greatly appreciate any information that you can provide relating to molting in marine turtles. I have several sections of the laminae which I can forward for your inspection if it would be valuable. Thank you in advance for any assistance that you can provide.

Sincerely,

George H. Balazss
Jr. Marine Biologist

P.O. Box 1346
Kaneohe, HI 96744
May 12, 1974

Mr. Y. Arashiro, Manager
Wailua Marine Restaurant
Wailua, Kauai

Dear Mr. Arashiro,

During the early part of February letters of appeal were sent to twenty major restaurants around the State pointing out the seriously endangered status of Hawaii's sea turtles and requesting that consideration be given to voluntarily halting the sale of turtle steak. In addition, several articles were enclosed which described the critical problems these unique salt water reptiles are experiencing throughout the world due to the lack of concern and greed of man. The Wailua Marina was one of the establishments which originally received this material. Unfortunately I did not have your name at the time and simply addressed the correspondence to Owner/Manager. In the event that this literature was not brought to your attention, I have enclosed duplicate copies.

The proposed sea turtle protection regulation which I referred to in the letter has since been given full approval by the Animal Species Advisory Commission, the State Fish and Game Division and the Board of Land and Natural Resources. The measure now resides in the Governor's office where it will be signed into law within the next few weeks. Among other provisions necessary for sea turtle survival, the regulation will legally ban the commercialization of derived products within the State.

The response to my earlier letter has been truly gratifying. Numerous restaurants have removed turtle steak from their menu and a major supermarket chain has discontinued their line of frozen meat. As one of the leaders in the movement for the rational conservation of these animals, I have often received calls and letters from residents pointing out those businesses still dealing in turtle products. In this respect, the Wailua Marina has frequently been mentioned as an advertisement continues to appear in *The Neighbor Islands: This Week* (copy enclosed).

Once again I would like to ask you to consider replacing the turtle on your menu with another equally exotic and attractive item- an item that is not, however, obtained from an animal that is faced with extinction. Our concern for the sea turtle's survival is a very serious matter. We realize that this animal not only has great aesthetic value as a non-consumable tourist attraction, but also that as a migratory breeder with a complex life cycle it possesses great scientific value. Last, but certainly not least, the turtle can provide a valuable source of protein to our less fortunate residents who have traditionally turned to the sea for food. All of these advantages can of course only be realized if the populations are wisely managed and utilized by taking into full consideration all of the available scientific evidence.

As I presently view the situation, two major advantages will result from your immediate discontinuance of the sale of turtle. The first benefit will directly affect the turtles themselves in that fewer will be eliminated from the population. The second benefit will be to your direct advantage because your establishment will acquire the image of being sensitive, although slightly belatedly, to public concern and the plight of an endangered Hawaiian species. Regardless of your immediate decision, the outcome will have to be the elimination of turtle steak. Therefore, I ask the question "Why not do it now as a gesture of good will to the animals which you have profited from over the years?" I would greatly appreciate receiving a brief note as to your decision.

With best regard,

George H. Balazs
Jr. Marine Biologist with the
Hawaii Institute of Marine Biology

cc

- D. Raney, Chairman-Sierra Club
- W. Gagne, Hawaii Audubon Society
- A. Ziegler, Vertebrate Zoologist-Bishop Museum
- F. Radovsky, Bishop Museum
- A. Chong, Hawaii State Representative

P. O. Box 1346
Kaneohe, Hawaii 96744
May 3, 1974

Mr. Kenneth Ching
The Chart House Restaurant
1765 Ala Moana
Honolulu, Hawaii 96815

Dear Mr. Ching:

During the early part of February letters of appeal were sent to twenty major restaurants around the State pointing out the seriously endangered status of Hawaii's sea turtles and requesting that consideration be given to voluntarily halting the sale of turtle steak. In addition, several articles were enclosed which described the critical problems these unique salt water reptiles are experiencing throughout the world due to the lack of concern and greed of man. The Chart House was one of the establishments which originally received this material.

Unfortunately, I did not have your name at the time and simply addressed the correspondence to Owner/Manager. In the event that this literature was not brought to your attention, I have enclosed duplicate copies.

The proposed sea turtle protection regulation which I referred to in the letter has since been given full approval by the Animal Species Advisory Commission, the State Fish and Game Division and the Board of Land and Natural Resources. The measure now resides in the Governor's office where it will be signed into law within the next few weeks. Among other provisions necessary for sea turtle survival, the regulation will legally ban the commercialization of derived products within the state.

The response to my earlier letter has been truly gratifying. Numerous restaurants on Kauai and Oahu have removed turtle steak from their menu and a major supermarket chain has discontinued their line of frozen meat. As one of the leaders in the movement for the rational conservation of these animals, I have often received calls and letters from residents pointing out those businesses still dealing in turtle products. In this respect, the Chart House has frequently been mentioned.

Once again I would like to ask you to consider replacing the turtle on your menu with another equally exotic and attractive item - an item that is not, however, obtained from an animal that is experiencing decimation and eventual extinction. Our concern for the sea turtle's survival is a very serious matter. We realize that this animal not only has great aesthetic value as a non-consumable tourist attraction, but also that being a migratory

Mr. Kenneth Ching
May 3, 1974

Page 2

breeder with a complex life cycle, it possesses a great scientific value. And last, but certainly not least, the turtle can provide a valuable source of protein to our less fortunate residents who have traditionally turned to the sea for food. All of these advantages can of course only be realized if the populations are wisely managed and utilized by taking into full consideration all of the available scientific evidence.

As I presently view the picture, two major advantages will result from your immediate discontinuance of turtle. The first benefit will directly affect the turtles themselves in that fewer will be eliminated from the population. The second benefit will be to your direct advantage because your establishment will acquire the image of being sensitive, although slightly belatedly, to public concern and the plight of an endangered Hawaiian species. Regardless of your immediate decision, the outcome will have to be the elimination of turtle steak. Therefore, I ask, "Why not do it now as a gesture of good will to the animals which you have profited from over the years?"

I would be most happy to answer any specific questions that you may have concerning the sea turtle situation. I can usually be reached at 247-6631 Monday through Saturday. I would greatly appreciate receiving a brief note as to your decision.

With best regards,

George H. Balazs
Jr. Marine Biologist with the
Hawaii Institute of Marine Biology

GHB:md

Encls.



University of Hawaii at Manoa

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

May 22, 1974

Dr. Wayne King
Director, Conservation and
Environmental Education
New York Zoological Society
Bronx Park
Bronx, New York 10460

Dear Wayne,

I greatly appreciated receiving the Mariculture internal correspondence as they further illustrated to me the type of corporate logic these people operate within. I know first hand that their Division of Conservation and Research is little more than a joke as only one or two members know anything about turtle biology and conservation. All are on the payroll in one way or another.

Enclosed are various items for your files which I have been meaning to send. The paper by John Hendrickson will be of interest as you probably noted that his name was listed as a cc recipient of the Feb 21 Naylor to Goodier letter. Apparently Dr. Hendrickson has established himself as a full-fledged company consultant. The photographs were taken during my January visit. The color print shows animals being held in a strong noxious chlorine solution for 24 hours preceding slaughter. A black and white close up shows the eyes nearly swollen shut at the end of the "dip". White lesions on the neck are not related to the chlorine solution. When first placing the turtles in this tank violent and frantic behavior was observed. I can well understand why. I wonder if one of the SPCA type organizations would like to follow this further. The reason given for this treatment was to help control salmonella contamination in their plant. I have since been informed that serious problems continue to occur with salmonella and that shipments of meat have been rejected in the U.S. due to contamination.

Several months ago a Ms. Paula Chaser, Public Information Assistant out of the New York Audubon office expressed concern to Dr. Ehrenfeld about an advertisement in Newsweek relating to Mariculture. I wonder if you are aware of any action taken by Audubon. I am also aware of the fact that National Geographic has received several quiry letters for a turtle farming story. I wonder if one of them could be Mariculture trying to disseminate high powered propaganda.

I certainly hope that 5242A was successfully enacted and that our telegrams did some good. Best wishes.

Sincerely,

George H. Balazs
Jr. Marine Biologist

May 22, 1974

Social Science Association of Honolulu
c/o Mr. Harold W. Kent
B. P. Bishop Estate
519 Halekauwila Street
Honolulu, Hawaii 96801

Dear Mr. Kent:

I would like to take this opportunity to thank members of the Social Science Association of Honolulu for the interest they displayed in my presentation on Hawaii's sea turtles. It was truly a gratifying experience and I thoroughly enjoyed the evening.

As you are probably already aware, the two bills in the legislature relating to sea turtle protection and research funds died in committee during the last days of the session. Fortunately, partial protection at the departmental level was achieved anyway, as Fish and Game Regulation 336 was signed into law on March 17. This measure bans the commercialization of derived products, thereby removing the incentive for overexploitation. Hopefully, this new law will be rigorously enforced.

Since the State has not seen fit to appropriate specific funds for turtle research, I am attempting to solicit future support from other agencies such as the New York Zoological Society and the World Wildlife Fund. In the mean time a study will be conducted at the breeding grounds of French Frigate Shoals during this season (June - August) with partial assistance coming from the H&S. Bureau of Sport Fisheries and Wildlife as well as the Hawaii Institute of Marine Biology. The results of this work should help us better understand the status of the only green turtle breeding colony left in the United States.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

Dear Sir:

I ~~am~~ ^{am} a long time resident
of Hawaii ~~and~~ and very much
interested in local conservation
measures, particularly where ^{marine} animals
are concerned. While visiting
Sea Life Park this week with
relatives from the mainland, I
was very disturbed to hear
your Reef Tank diver's little
speech on the Hawaiian Green
Sea Turtle. While he held a
small turtle for the audience he
said that it was prized for its
"beautiful shell, and its delicious
Turtle Steak". Not one word was
mentioned as to its very delicate
~~and~~ position in recent years nor

the fact that ^{Tourism} ~~tourism~~ ~~part~~ creates
the market for its demise. I
feel that you at the Park have
a truly unique opportunity to
say a few words to ~~the~~ ^{every} ~~visitors~~ ^{day}
who might other wise order a
turtle steak or perhaps ^{by} some
~~but~~ tortoise shell jewelry. Most
people are totally ignorant of our
Hawaiian Sea Turtle's plight so
please, please don't further
promote an appetite for turtle
steak by telling our visitors
how delicious it is.

Now that I've had my say I'd
like to tell you that we enjoyed our
visits at Sea Life Park ^{immensely} ~~enjoyed~~
and felt that the entrance fee was well
worth the excellent shows and the
beautiful setting. ^{We all continue to maintain}
~~we all continue to maintain~~
~~the park in the best~~
Sincerely Linda Evans



K E O L A I K E K A I

April 22, 1974

Miss Linda Evans
P. O. Box 8195
Honolulu, Hawaii 96815

Dear Miss Evans:

Thank you for your recent letter of April 18th concerning our Hawaiian Reef Tank narration and the Hawaiian Sea Turtle.

We read your letter with great interest and have already made the necessary changes to the narration to cover some of the points that were mentioned in your letter.

We appreciate your interest and have enclosed a complimentary admission for yourself and a guest to come out again to Sea Life Park at your convenience.

Sincerely,
SEA LIFE, INCORPORATED

A handwritten signature in blue ink that reads "Edward W. Shallenberger".

Edward W. Shallenberger, Ph.D.
Vice President & Director of Park
Operations

EWS:jw
Enclosure

G. BALAZS



University of Hawaii at Manoa

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

April 27, 1974

Mr. Peter T. Wilson
Chief, Marine Resources Division
Office of the High Commissioner
Trust Territory of the Pacific Islands
Saipan, Mariana Islands 96950

Dear Peter:

I have your letter of April 11th and the enclosure on the Marshall Islands turtle project which got here in my absence. Luckily enough, as I get around to answering my mail that has accumulated while I was away, George Balazs had already written you a fairly thorough letter on this matter. Let me add my two cents worth of comments to the rather extensive and thorough treatment which George has given it:

Under "Objectives", I find (3) completely out of place. I believe that it should come at the end, and whether or not it is ever going to be attained is a little early to say. When it comes to justification, I happen to know that the Mariculture Ltd. success stories are slanted, so as not to say "exaggerated". I do not believe that one should take off with turtle farming based on the so-called Caribbean successes.

Obviously, this is, or was (because I do believe it is going to fail and go bankrupt) a capital and labor-intensive operation, and such a one is neither intended nor possible in the Marshalls. It should be possible to hold the animals in lagoon ponds provided they are not held too densely. It should be possible to collect eggs and hatch them, but, and here I must stress very strongly what George has said, namely, what is the situation as to nesting sites? You may with great enthusiasm do a lot of depletion of natural stocks, which could well be much more restricted than is now known. Lastly - and I simply defer assessing the possibility of exporting turtle meat and byproducts - lastly, then, it's a question of food and feeding. You probably know that we have been doing experiments on young turtles and their reactions to various feeds for the last two years. I can vouch for the fact that they are finicky eaters, and I also believe that the Marshallese will find a great deal more difficulty than you seem to anticipate in nourishing the beasts. They will not eat scraps, and if they do,

Mr. Peter T. Wilson
April 27, 1974

Page 2

they will not grow. Turtles in captivity are prone to disease. Very little, if anything, is known about turtle diseases, and I find your extrapolations on page 2 highly optimistic and probably, never to be attained.

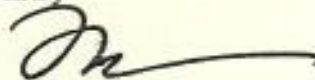
I fully realize what you are trying to do and what you have to do, but I do believe that this project should be approached with great caution. I am not saying it should not be done, but if it is done, it should be done right. And here I agree with George that it would be better if we started out by sending a team there, rather than bringing somebody here. I believe that the first step should be sending a team, maybe of two or three people, to the most interesting egg laying site, to assess the stock and then, perhaps, initiate a very small scale rearing program, watch the animals for six months for diseases and growth, then leave one of the team there to carry on and, perhaps, at that point, send a Micronesian to Hawaii. I would like to add that I am not looking for any money or any research project by saying what I have just said; in fact, if this were the route you would go, it would pose serious problems for our project here, if you proposed that we "help you out". But perhaps you want to get differently biased Caribbean advice?

Let me repeat, this is not to say don't do it, but to say do it right! And, if you do, you can certainly count on us.

By the way, what happened in the matter we discussed on your way through a few weeks ago; I am curious, but not yellow.

Very best regards.

Yours,



John E. Bardach
Director

JEB:md



University of Hawaii at Manoa

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

April 30, 1974

Mr. Hans N. Newhauser
Executive Director
The Georgia Conservancy
The Clusky Building
127 Abercorn Street
Savannah, Georgia 31401

Dear Mr. Newhauser:

Thank you very much for your letter of April 1 along with the notice for the loggerhead seminar. I was gratified to learn of your interest and efforts in conservating marine turtles. I would greatly appreciate receiving any reports or abstracts which arise from the forthcoming meeting. Perhaps you can correspond with me towards the end of May and present a brief summary of the activities which took place.

Concerning your request for a list of those persons in the Pacific involved in marine turtles, I am still compiling this information. I intend to eventually distribute a biannual information sheet on turtle activities (research, conservation, legislation and education) in the Hawaiian Archipelago. I will be most happy to forward you a copy of the list when it is completed. In the meantime, I am sending the names of individuals in other areas that are interested in marine turtles. This list was sent to me by Dr. Carr and I am sure you will find it useful. I have also enclosed two brochures which I prepared for distribution at the Waikiki Aquarium and other locations frequented by tourists. The letter to one of the largest supermarket chains on Oahu will be self-explanatory. The two advertisements for the Seabrook Island development were particularly disturbing and I suspect that such projects are of major concern to your organization. Very interesting how the promoters suggest that the wildlife, loggerhead nesting including, will continue in its natural state so long as the residents do not disturb them ("learn to live with them").

I look forward to a continued exchange of information beneficial to our common goal.

Sincerely,

George H. Balazs
Jr. Marine Biologist

C
O
P
Y

April 1974
UNIVERSITY OF HAWAII

Hawaii Institute of Marine Biology

Mr. William G. Foster, Chairman
Hawaii Visitors Bureau
2270 Kalakaua Avenue
Honolulu, Hawaii 96815

Dear Mr. Foster:

The enclosed brochures concerning our Hawaiian sea turtles have been prepared for free distribution at the Waikiki Aquarium and other locations frequented by our visitors. I would very much like to have this information translated into Japanese so that it might reach the many tourists we now receive from Japan. Unfortunately, I have been unable to find a community-service minded individual who will donate his or her time for this work. As you have previously indicated an interest in our efforts to conserve these unique Hawaiian animals, perhaps someone in your Bureau could aid us in this project. Any assistance or suggestions that you can provide will be greatly appreciated.

Sincerely,

George H. Balazs
Jr. Marine Biologist

Enc: Honolulu Star Bulletin Editorial

GHB:bd

C
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P
Y

UNIVERSITY OF HAWAII

Hawaii Institute of Marine Biology

April 23, 1974

Mr. James M. Bradley
U.S. Naval Station
Midway Island, Box 19
P.P.O. San Francisco 96614

Dear Jim,

Many thanks for the turtle information which you conveyed to me over the phone the other day. I look forward to someday visiting you on Midway and surveying the juvenile populations.

I have enclosed a chart showing Sand and Eastern Islands. I would greatly appreciate it if you could mark those areas where you dive and sight turtles.

If I can ever be of assistance to you here in Honolulu, please feel free to call upon me.

Sincerely,

George H. Balazs
Jr, Marine Biologist

GHB:bd

C
O
P
Y

UNIVERSITY OF HAWAII

Hawaii Institute of Marine Biology

April 23, 1974

Mr. Steve Seater
The Fund for Animals
1765 P Street N.W.
Washington, D.C. 20036

Dear Mr. Seater:

This morning I received your letter of April 19 and was most gratified to learn of the Fund's concern for marine turtles and premature commercial farming. Your efforts in this field are truly commendable and you have my sincere thanks. Please feel free to call upon me for any assistance that may be required.

It is little wonder that you did not receive a reply to your November 16 letter to Mariculture Ltd. - they have no answers. I have met many of the farm employees and consultants and discussed at great length some of the very same issues. Most of these individuals have very little knowledge about marine turtle ecology and conservation. All, in my opinion, have not properly focused on the biological implications of their activities. This is due to the more immediate problem, from their point of view, which is one of economics. Profits have not been made, costs are up, mortality is high and sound reasoning people concerned with the survival of Chelonia (such as ourselves) are asking pertinent questions and obstructing their plans for corporate expansion. Can you imagine the second farm planned for Puerto Rico which will require 300,000 eggs harvested each year?

In the Pacific my chief concern has been with the interest other governments have shown in commercial turtle farming. For the most part this has been brought about by the promotional advertising campaigns that Mariculture has seen fit to initiate. All of these problems will be lessened considerably if and when the green turtle is placed on the endangered species list and all derived products are prohibited from both importation and exportation.

I have enclosed a cross section of correspondence relating to turtle conservation which I am sure you will find interesting. Please feel free

Mr. Steve Seater
April 23, 1974

Page 2

to draw upon this material as you may see fit. Please keep me posted
as to the status of sea turtle matters in Washington.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:bd

December 2, 1973

Mr. William G. Foster, Chairman
Hawaii Visitors Bureau
2270 Kalakaua Avenue
Honolulu, Hawaii 96815

Dear Mr. _____

I have read with great interest the article by Jerry Burris entitled "HVB to Stress 'Quality' in Future Tourism Growth" which appeared in the December 1st issue of the Honolulu Advertiser. This new direction in tourism will be both welcomed by and beneficial to our residents as well as our visitors. I was particularly encouraged to read the section which stated that continued growth will put a "strain on the human and environmental resources". With respect to the environmental resources, I would like to call your attention to a unique Hawaiian resource which is already experiencing the strains of overexploitation, our green sea turtle (Chelonia sp.) population. Because you may not be familiar with the various aspects of sea turtle biology, I have enclosed for your information an excellent article by Dr. Archie Carr entitled "Great Reptiles, Great Enigmas". In addition I have enclosed background information on proposed State Fish and Game Division regulation 36 which, if enacted, will afford much needed protection to sea turtles around the major Islands. I hope that you will have the time to carefully read this material as well as the testimony which I presented in favor of the proposed regulation at a public hearing held on September 21st. In particular, I would like to point out the section on page 7 and 8 which states:

"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."

I sincerely hope that you will personally find this material important enough to want to pass it on to other members of the Hawaii Visitors Bureau Board of Directors. In my opinion, it would seem appropriate at this time for your organization to formally endorse this conservation measure in view of your commitment to quality. As turtle steak could easily be replaced on menus with other equally attractive and exotic luxury foods, such an endorsement would most certainly be beneficial to your overall image.

Thank you for the opportunity of calling this matter to your attention.

Sincerely,

George H. Balazs
Jr. Marine Biologist with the
Hawaii Institute of Marine Biology

5 enclosures

cc The Editor, Honolulu Star Bulletin
The Editor, Honolulu Advertiser

The attached reproductions each illustrate a different manner in which sea turtles are used in advertisements. In the first (Seabrook Island, S.C.) a " look but do not disturb " emphasis is given, while in the second (Hawaii) bow and arrow fishing for turtles is glamorized.

It would seem logical to protect Hawaii's unique environment so that its beauty may be witnessed and enjoyed by future generations of visitors and residents. The sea turtle steak (which tastes much like veal) consumed during a visit is probably soon forgotten. The graceful, living sea turtle seen swimming over the reef or along a rocky coastline is apt to be remembered and described to friends. Most important, the animal will still be alive for the pleasure of the next person.

April 19, 1974

Lt. J.G. Edwin Rollison
Commanding Officer
USCG LOR STA, Box 48
FPO San Francisco 96610

Dear Mr. Rollison:

Sorry I didn't have the opportunity to talk with you longer during my recent brief visit to Tern Island. The purpose of the trip was to conduct an aerial survey of basking green turtles on each of the islets within the Shoals. Fortunately, the weather was suitable and somewhat reliable counts were obtained. As you are probably already aware, turtles periodically migrate into the area for breeding and nesting purposes. French Frigate Shoals is the only major nesting area in the Hawaiian chain. It appears as though numbers are already starting to increase in preparation for nesting which we believe commences during the latter part of May. A total of 25 baskers were counted, with most being present on East, Whale-Skate and Trig. Aerial observations of this nature are a portion of the intensive research I am conducting on the natural history and population ecology of the green turtle in the Hawaiian Archipelago. All work within the Refuge is of course in cooperation with U. S. Bureau of Sport Fisheries and Wildlife.

I have enclosed several pieces of literature on marine turtle biology and conservation which I am sure you will find interesting. Perhaps some of your men would also enjoy reading this material. In addition I am sending a copy of my summary report on the 1973 turtle investigations at French Frigate Shoals. This will help to give you a better idea of the type of work that was conducted last June and July.

If turtle activity (basking or nesting) takes place on Tern during the coming weeks, I would greatly appreciate any details that you can pass on to me. Also, should a dead turtle even be found, it would be valuable if the animal were frozen, provided your facilities will permit this type of storage. If this is not possible, perhaps it could be moved above the high tide line for future recovery. The taxonomy and feeding habits of French Frigate Shoals' turtles are poorly understood and such a specimen could provide valuable information.

Lt. J. G. Edwin Rollison
April 19, 1974

Page 2

Once again, I would like to express my appreciation to the Coast Guard for its active support of our green turtle research. Without such assistance very little biological information could be obtained on this declining species.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

cc: Mr. Palmer Sekora, BFW
Dr. Philip Helfrich, Assoc. Dir., HMB
Mr. Eugene Kridler, Endangered Species Coordinator

April 19, 1974

Mr. Ross Witham
Florida Department of Natural Resources
Division of Marine Resources
Tallahassee, Florida

Dear Mr. Witham:

During recent months I have read with great interest several newspaper articles concerning your work on the captive rearing and release of juvenile green turtles. As my research deals with the natural history and conservation of marine turtles in the Hawaiian Archipelago, I would greatly appreciate receiving further information on the following points:

1. Of those animals tagged and released, how many have been recovered and under what conditions (growth, distance, time elapsed)?
2. Has any indication been given that captive reared animals are able to successfully mature and enter the breeding population after release?
3. Is the predation rate on eggs in natural green turtle nests in Florida sufficiently high enough to warrant removal to artificial surroundings for incubation?
4. What successes have been achieved with captive hatchling production from either captive reared adults or mature animals removed from the wild?
5. What adverse effects will the Hutchinson Island Florida Power and Light Company have on marine turtle nesting in the area? I suspect that the answer to this question is presently unknown, however, perhaps you can forward me an abstract of the environmental impact statement or other relevant material.

I am convinced, as many others are, that the survival of marine turtles throughout the world depends on the elimination of commercial demand. People must be made aware of the animals' plight through education and public information programs that

Mr. Ross Witham
Page Two
April 19, 1974

accurately portray the survival status. I feel certain that we both share a dedication to the conservation of these unique reptiles. I look forward to a beneficial exchange of information on our projects.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

April 10, 1974

Mr. Masoru R. Funai
14-23 11th Street
Fair Lawn, New Jersey 07410

Dear Mr. Funai:

Many thanks for your letter of April 1 concerning my inquiry about Green Turtle Mysteries. I greatly appreciate your offer to purchase a number of these books at the artist's 40% discount. I accept your most gracious offer and, as previously indicated, will make the copies available at no cost to schools that would not have otherwise purchased this publication. Please write at your earliest convenience indicating what the unit cost will be. When I have received this information I will be in a better position to tell you how many will be ordered.

I have enclosed several pieces of information on sea turtles which you may find interesting.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

Encls.

April 9, 1974

Dr. John C. Harshbarger
Director
Registry of Tumors in Lower Animals
Smithsonian Institution
Washington, D. C. 20560

Dear Dr. Harshbarger:

Dr. Al Smith has suggested that I write to you concerning the incidence of tumors in marine turtles. It is my understanding that the Activities Report, Registry of Tumors in Lower Animals, February 28, 1969-March 1, 1970 mentions several such cases. If available, I would greatly appreciate receiving a copy of this publication.

A portion of my research deals with the natural history of the green turtle (Chelonia agassizi) in the Hawaiian archipelago. During June and July of 1973 intensive tagging studies were conducted at French Frigate Shoals (23° 45' N 166° 10' W), the last remaining nesting site in the state. Several animals were observed with large growths on their neck. When the study is repeated this coming summer I will photograph for reference purposes all animals seen with this affliction.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:ah

March 15, 1974

National Geographic Society
Committee for Research and Exploration
Washington, D. C. 20036

Dear Sirs:

During January I was able to visit Grand Cayman Island, B.W.I. for the purpose of examining the commercial green turtle (Chelonia mydas) farm which has been established at that location. As my research activities involve investigations of the green turtle in the Hawaiian Archipelago as well as growth and nutrition studies on captive reared animals, I have attempted to personally determine the present status of turtle farming and its relationship to the conservation of the species. The effects of commercial culture on the survival of the green turtle continues to be a subject of major concern to marine turtle biologists. This topic has only recently been analyzed in detail in an article by David W. Ehrenfeld entitled "Conserving the Edible Sea Turtle: Can Mariculture Help?" (January-February AMERICAN SCIENTIST). For your information, I have enclosed a copy of my correspondence to the Bureau of Sport Fisheries and Wildlife which, in part, deals with this subject. As you may be aware, both the green and the loggerhead have been proposed for endangered status by the Department of the Interior. Other marine turtles which have already been classified as endangered include the hawksbill, leatherback and Atlantic ridley.

In addition to collecting information on the Grand Cayman turtle farm, I was fortunate enough to be present on the island for the return of one of the small motorized vessels which regularly travels to the coasts of Nicaragua and Honduras to capture turtles. Capture and consumption of turtles has been a tradition in Cayman life for many generations. Interestingly enough, numerous islanders display a dislike for farm reared turtles, therefore a strong demand exists for animals captured from the wild.

Over a several day period I was able to witness the unloading, butchering and marketing processes. I was also able to speak in detail with the captain and several crew members about the similarities and differences of Cayman-style turtle fishing as compared to that of Hawaii (and other areas of the world). I was most pleased to find myself welcome on any of the two week expeditions should I

National Geographic Society
March 15, 1974

Page 2

return to Cayman Island in the future. With the idea in mind that such a trip would be worthy of documentation from a human ecology viewpoint, as well as from the aspect of collecting valuable data on the green turtle populations, I conducted a review of the literature on Cayman fishing upon my return to Honolulu. Coincidentally, a similar set of circumstances had occurred over 30 years ago. A narrative of a Cayman turtle fishing expedition appeared in the August, 1943 National Geographic entitled "Capturing Giant Turtles in the Caribbean" by David Duncan. The captain of the sailing schooner Adams in this article had the name of Ebanks, the same as that of the gentleman I spoke to. Mr. Duncan dealt with the subject at a time when marine turtles were not recognized as endangered and trade in the Florida Keys was active. In my opinion, an up to date documentation on the modern day turtling expeditions would be particularly relevant in view of the controversial farm located on Grand Cayman, the dwindling number of turtles in the world, and the fact that greens captured by Cayman boats are members of the same colony which Dr. Archie Carr has studied at the Costa Rican nesting beaches (see "Imperiled Gift of the Sea" by Archie Carr Nat. Geo. June 1967).

I would like to propose to the National Geographic Society that support be provided for such an expedition. In addition to the collection of scientific data, the main objective of such a trip would be to gather interesting and informative facts which could be used to prepare an article suitable for publication in the Society's journal. I would visualize the maximum useage of quality color photographs, an essential component to the documentation process. The funding necessary to conduct this project would be relatively minimal, with major expenses being limited to air travel to and from Cayman Island, compensating to the vessel's captain and photographic supplies. Information on financial requirements would be presented in detail should the Society share my interest and enthusiasm in this project. I look forward to hearing the committee's views on this preliminary proposal and would be most happy to answer any questions that may arise.

Sincerely,

George H. Balass
Jr. Marine Biologist

GHB:md

April 8, 1974

Dr. Frank G. Nicholls
Deputy Director General
International Union for Conservation
of Nature and Natural Resources
1110 Morges, Switzerland

Dear Dr. Nicholls:

It has recently been brought to my attention that efforts are now underway to gain a formal expression of support by IUCN for the activities of Mariculture, Ltd. (Grand Cayman Island, B.W.I.). As a biologist who is actively involved in marine turtle conservation and research in Hawaii, I am taking the liberty of forwarding to you copies of correspondence which I have previously written on the subject of turtle farming. I hope that you will have the opportunity to examine this material as it may contain information which will be of use in your decision making process.

Sincerely,

George H. Balazs
Jr. Marine Biologist

CHB:ah

enc

February 28, 1974

Ms. Paula Chaser
Public Information Assistant
National Audubon Society
950 Third Avenue
New York, New York 10022

Dear Ms. Chaser:

Dr. David Ehrenfeld has recently passed on copies of correspondence with you concerning the advertisement in Newsweek magazine. Although this misinformation further adds to the problems of green turtle survival, it is nevertheless not at all surprising in view of previous hogwash that has appeared in print on the subject. The most deceiving items are brochures that the farm itself distributes to visitors and prospective stockholders. I personally documented this point on a 4-day visit to Grand Cayman Island during January.

I have enclosed several copies of correspondence dealing with this subject that will be self-explanatory. Please feel free to call upon me if I can be of assistance. Incidentally, I was informed by farm biologists that none of the 19 females that had nested in captivity were captive reared. All were obtained from the wild as adults and had been held in captivity for varying lengths of time ranging up to three years.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

Encls.

March 15, 1974

Fauna Preservation Society
Zoological Society of London
Regents Park
London NW1

Dear Sirs:

I have read with great interest the article concerning captive bred turtles which appeared on page 159 of your October 1973 journal. I would like to point out that many marine turtle biologists, including myself, would take strong exception to your statement that

"...farm breeding is probably the only way, and certainly the sensible way, to relieve the pressure on wild populations."

What your article did not clearly indicate is the fact that not one of Mariculture's animals that nested in captivity had been reared on the farm. All were procured from natural populations as adults and held at the facility for varying lengths of time ranging up to three years. Besides containing other misinformation, promotional brochures widely distributed by Mariculture, Ltd., have stated that the recent "success" represents a completion of the life cycle in captivity (see a Mariculture, Ltd., supplement to The Northwestern - October 1973, enclosed). The seemingly deliberate attempts to mislead the general public as to the survival status of Chelonia and its relationship to captive culture can do nothing but further hasten the species down the road to extinction. It is unfortunate that you have unknowingly aided their campaign by not presenting all of the pertinent information.

I have enclosed material authored by Drs. Ehrenfeld and Carr on this same subject which I feel sure you will find interesting. Perhaps a note in your publication relating to the points that these gentlemen have made would be appropriate. Except for this particular case I wholeheartedly support your Society's efforts and commend you on the fine conservation and public awareness work which you conduct.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosure

April 8, 1974

Mr. Chuck Freitas
P. O. Box 1236
Hilo, Hawaii 96720

Dear Chuck:

Many thanks for your interesting letter of March 27. Although I have no immediate plans for visiting the Big Island, I certainly hope to find time in the not too distant future. If all goes as scheduled, I will be at French Frigate Shoals during June and July to do further work on the breeding population.

Three major points are of immediate interest on the Big Island. Hopefully you can give me some insight.

1. What restaurants presently sell turtle steak:
2. Which offshore areas are known to host the most numbers of turtles?
3. Where were turtles known to rest in previous years?

Any assistance that you can provide will be greatly appreciated. I have enclosed literature on marine turtles which I am sure you will find interesting.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosure

March 5, 1974

Dr. A. Binion Amerson
Museum of Natural History
University of Kansas
Lawrence, Kansas 66045

Dear Binion,

During our discussions on the green turtle in Hawaii you indicated that Mr. Theodore De Vaughn, a retired naval officer, had spent time at French Frigate Shoals and was a potential source of biological information. A search of the telephone directory and military information has failed to locate this gentleman. Perhaps I have misspelled his name or possibly he has moved out of the state. If you have additional information on where he can be contacted, I would greatly appreciate receiving it.

I recently had the good fortune to attend the World Mariculture Society Conference in South Carolina where I presented a paper on shrimp nutrition. Afterwards I spent four days on Grand Cayman Island visiting the widely publicized turtle farm.

Hopefully, your studies are all progressing as anticipated. Best wishes and mahalo for any assistance that you are able to provide.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:ah

March 28, 1974

Mr. D. M. Freegard
Financial Secretary
Central Government Office
P. O. Box 68
Bairiki, Tarawa
Gilbert and Ellice Islands Colony

Dear Mr. Freegard:

Thank you very much for your letter of March 18 (F163/1/25) indicating your willingness to include me in the forthcoming expedition to the Central and Southern Line Islands. Arrangements are now being made with Dr. Helfrich's assistance for my passage to and from Christmas Island. I fully intend to join this project; please consider this letter to be a confirmation. As specified, I would be most happy to make available to the colony government copies of all reports/publications which result from the investigation. In reference to the written indemnity, I can either prepare a signed letter on this subject or perhaps complete a standard government form provided by your office.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

cc: P. Helfrich, Assoc. Direc, HIMB
J. Bardach, Director HIMB



University of Hawaii at Manoa

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

March 28, 1974

Mr. Phillip Olsen, Commander
Aloha Search and Rescue Squadron
Civil Air Patrol
P. O. Box 9417
Honolulu, Hawaii 96820

Dear Mr. Olsen:

I am presently involved in investigations of the various aspects of marine turtles which occur in the Hawaiian Islands. As you may be aware, these unique reptiles have undergone serious declines in many areas of the world due to exploitation for commerce. All signs presently indicate that Hawaii's green turtle, Chelonia agassizi (the major species in our islands) has been overexploited and is declining at a significant rate. The only recognized remaining breeding grounds are the several small sand islets at French Frigate Shoals. Turtles are known to periodically migrate from feeding areas around the major inhabited islands to French Frigate Shoals for reproduction. In order to obtain valuable data on the breeding population, I conducted a two month intensive tagging study within the Shoals during 1973.

As short a time as 20 years ago nesting was known to occur at select beaches on the major islands. Among those reported included Polihua on Lanai, Halawa, Papohuku on Oahu, Milolii on Kauai and the Makena area of Maui. In an attempt to learn if nesting might still take place, I have visited a few of these sites and conducted land surveys. I am sure that you will readily appreciate the problems associated with making such surveys on foot. Time, money and distances involved restricted the intensity and comprehensiveness of this work.

To facilitate an adequate reconnaissance survey of the beaches I have mentioned it would be of great assistance if I were able to obtain permission to fly on several Civil Air Patrol training missions destined for these areas. The tracks and pits of nesting turtles could be readily identified from the air. As reproduction at our latitude only takes place between May and August, it would seem to be ideal to examine these sites during June and July. Nesting, if it is occurring, would be greatest during these months. A photographic documentation of the

Mr. Phillip Olsen, Commander
March 28, 1974

Page 2

areas surveyed would be an essential part of the work. In this respect, our laboratory has all the necessary equipment.

The cooperation of the Civil Air Patrol in this work would be greatly appreciated. I would be most happy to further discuss this proposal in greater detail. Please contact me at 247-6631 during working hours or 946-1760 evenings.

Sincerely,

George H. Balazs
Jr. Marine Biologist

cc: J. Bardach, Director HIMB
P. Helfrich, Assoc. Director HIMB

GHB:bd

March 28, 1974

Dr. H. L. Bregulla
New Hebrides Cultural Center
Port Vila
New Hebrides

Dear Dr. Bregulla:

I have noted with great interest the article in Linn's Stamp News (March 4, 1974) concerning the issuance of a 70¢ green sea turtle stamp which you designed. As I am unable to find a conversion for gold centimes to U. S. dollars, I would greatly appreciate your assistance in helping me obtain one of these stamps.

Hopefully your sea turtle conservation program is progressing in a satisfactory manner. Please feel free to call upon me if I can aid your efforts in any way.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk



University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW
March 14, 1974

Boyce Thompson Institute
for Plant Research
1086 North Broadway
Yonkers, New York 10701

Dear Sirs:

I am attempting to locate a paper entitled "Interrelationships between serum protein fractions isolated by various techniques" by R. J. Block and S. Keller. This publication appeared in the Contributions of your Institute in 1960 (Vol. 20, pp. 385-394). If available, I would greatly appreciate receiving a copy. If it is out of print, I would be most happy to forward whatever amount necessary for reproduction and postage.

Thank you very much for any assistance you are able to provide.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:bd

BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH, INC.

1086 NORTH BROADWAY

YONKERS, NEW YORK 10701

March 21, 1974

The reprint you requested is unavailable.

Sorry.

BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH, INC.

Publications Department

BY _____



George H. Balazs
Jr. Marine Biologist
University of Hawaii at Manoa
Hawaii Institute of Marine Biology
P. O. Box 1346
Coconut Island
Kaneohe, Hawaii 96744

March 18, 1974

Mr. Vernon M. Kleen
Division of Wildlife Resources
Department of Conservation
605 State Office Building
400 South Spring Street
Springfield, Illinois 62706

Dear Mr. Kleen:

Many thanks for your letter of February 22 with accompanying copy of the Illinois Endangered Species Protection Act. This is a very progressive and commendable piece of conservation legislation which should set an example for other States that have not yet taken steps to protect endangered wildlife from commerce. As you may be aware, California now has a similar law in effect. Promoters of the Grand Cayman green turtle farm (Mariculture, Ltd.) recently lobbied for legislation (AB1502) that would exempt their green turtle products from California's restrictions. As the enclosed copy of correspondence indicates, they were unsuccessful in this endeavor.

I have enclosed a copy of page 6 from a corporate prospectus for Mariculture, Ltd., which was issued late in 1973. You will note that both the California and Illinois laws are considered to present a threat to their program of economic expansion. I would speculate that lobbying of Illinois legislators will soon take place, if it has not already. Poly Bergen Cosmetics has been suggested as the potential buyer of their turtle oil. You may recall that Miss Bergen's line of turtle oil cosmetics helped to increase the exploitation of green turtles by creating a greater demand.

In the event that you have not seen the pertinent literature prepared by Drs. Carr and Ehrenfeld, I have enclosed copies for your information.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosures



University of Hawaii at Manoa

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

March 14, 1974

Dr. F. Wayne King
Director, Conservation and
Environmental Education
New York Zoological Society
The Zoological Park
Bronx, New York 10460

Dear Dr. King:

Thank you for your letter of March 5 which described the New York Zoological Society's involvement in sea turtle research and conservation. I was most pleased to learn of this concern and support.

In reference to the exportation of turtle products from Mexico, I have enclosed an advertisement from Navarro Brothers in El Paso which you may find interesting. The response to my inquiry about sea turtle leather also included a small sample, which I shall refrain from passing on with this letter. It is my understanding that the Domit Company of Mexico manufactures these products and that Nunnbush Shoe Company of the United States is the parent firm. You may already be aware of these facts, however, I have passed the information on in the event that it has not been brought to your attention.

In recent weeks our local Bureau of Sport Fisheries and Wildlife importation agent has confiscated a shipment of hawksbill jewelry originating from Viet Nam. The owners claimed that the material had been derived from "farmed" animals and therefore felt that entry would (or should) be allowed. As specifics become available on this case I will pass the information on to your organization. This may develop into a major problem. It seems safe to speculate that many similar instances will arise if the Grand Cayman operation continues its campaign based on misinformation and glossy promotional literature.

Dr. F. Wayne King
March 14, 1974

Page 2

The enclosed project proposal outlines the activities which I intend to continue this year at French Frigate Shoals. The necessary minimal funding has been a problem due to budget cuts at the University and State level. I am hopeful that the Bureau of Sport Fisheries and Wildlife will provide financial assistance as the results of the investigations are directly applicable to their conservation efforts. Information on this proposal should arrive from the regional office in Portland in the very near future.

Please feel free to call upon me if I can be of any assistance to the Society's activities.

With best regards,

George H. Balazs
Jr. Marine Biologist

GHB:bd

The Hawaii Institute of Marine Biology
University of Hawaii
P. O. Box 1346
Kaneohe, Hawaii 96746

November 13, 1973

Mr. Philip Yamagata
4597 Oloheua Road
Kapaa, Kauai 96746

Dear Mr. Yamagata:

Your concern over the size limitation in proposed regulation 36 (protection for marine turtle) has been described to me. Although I feel sure that you have informed yourself as to the reasoning behind the size restriction being proposed, I would nevertheless still like to discuss some of the more important aspects which, in my opinion, more than justify the enactment.

It has been stated that only being able to take turtles measuring 36 inches or above will create an undue hardship on the home consumer because animals this size are difficult to find (and catch). This may very well be true because all available evidence strongly indicates that the Hawaiian green turtle population is decreasing rapidly in the face of increasing exploitation. How much of this depletion has been caused by the non-commercial fishermen is completely unknown because of the absence of records. At this particular stage in the history of our turtle population it is my contention that a much greater undue hardship will result to the turtles themselves if the proposed size for legal capture is reduced any further. Because we are all interested in wisely managing and utilizing the resource within the safe limits of its productive capacity, the most logical move at this time is to give protection until reproductive size has been reached and the opportunity has been afforded for nesting to occur at least once, preferably twice. If this regulation had been proposed 20 years ago, or even 10 years ago, perhaps a 36 inch size would not be necessary.

However in view of our present knowledge, it is critical to the green turtle's survival that juveniles and sub-adults be allowed the privilege of growing up, mating, laying eggs and contributing offspring so that our population can be perpetuated. As you know, green turtles, 1) have a very low reproductive rate when compared to other marine organisms such as fish and crustacea, 2) take an exceptionally long time to reach sexual maturity, and 3) have not evolved to withstand heavy predation from man. Too often sea turtle populations have been managed as if they were fish. Although coming under the general jurisdiction of fisheries administration, it must be remembered that turtles are unique animals with a complex life history which need to be treated with special care. The results of sea turtle mismanagement in numerous areas of the world should serve as an example to the residents of Hawaii where, hopefully, the benefits from wise management can still be realized.

Mr. Philip Yamagata
Page Two
November 13, 1973

An additional point to keep in mind while you are considering the proposed regulation is the fact that French Frigate Shoals is, for all practical purposes, the last nesting site in the Hawaiian Archipelago. I am sure that you know that this was not always the case. In addition, our Hawaiian colony is the last remaining within the United States. It would seem unfortunate if the efforts to safeguard this unique animal were compromised for the benefit of a small segment of our residents.

I appreciate the opportunity of being able to discuss this matter with you.

Sincerely,

George H. Balans
Jr. Marine Biologist

mk

cc: Mr. Sunao Kido, Board of Land and Natural Resources
Mr. Michio Takata, Division of Fish and Game
Mr. Kenji Ego, Division of Fish and Game

August 7, 1973

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

Dear Mr. Takata:

You may be interested in learning of some of the preliminary results from my sea turtle tagging project which was conducted at French Frigate Shoals between June 1 and July 19, 1973. During the seven-week period (which, in our opinion, encompassed the greater part of the breeding season) a total of 67 females were recorded as coming ashore to nest on East Island. During the same period the other islets in the Shoals (Tern, Trig, Whole-Skate, Gin and Little Gin) were monitored periodically and pit counts taken. From this information it became apparent that East Island hosted the largest number of turtles. Whole-Skate was estimated to have had 53 females nest on its beaches, while each of the other islets contained very few individuals (e.g., less than ten). Since our patrols of East were very comprehensive, there was little chance of our having missed any nesters. Many of the females using East were measured. Average straight line shell length was found to be 36.4 inches (range 32.8 - 40.8) and average shell width 28.4 inches (range 24.5 - 34.0).

Although the data obtained from this study is only representative of one nesting season, it is nonetheless significant in that this is the first survey of its kind undertaken in the area. The number of sexually mature individuals that we observed was fewer than earlier population estimates given by other workers. Based on my findings, a tentative total breeding population for French Frigate Shoals could be calculated by 1) assuming a three-year breeding cycle, 2) increasing my observed number by 20 percent to account for that portion of the season that was not included in the survey, and 3) assuming an equal sex ratio. With the data available, one could logically make these assumptions and therefore arrive at a total breeding population of 1,074 individuals.

Mr. Michio Takata
Page Two
August 7, 1973

Concerning the marine turtle catch data that Mr. Randy Chau has been tabulating for me from your division, there are several points that should be called to your attention. For the first four months of 1973 the turtle catch has already reached 12,042 lbs. If this trend continues, this will be an all-time high, even exceeding last years record of 25,583 lbs. It has been pointed out to me that on the catch forms "gaft" is frequently stated as the method of capture. As the animal is being pierced with a sharp object, would this not be considered very similar to spearing? Also a common method reported is "scuba." It is unclear to me what the actual method of catch really is, as all this term describes is the apparatus worn by the fisherman when the animal was taken. Perhaps you have further knowledge on this subject which you could pass along to me.

I hope that the above information is of use to you in planning future management programs.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk



University of Hawaii at Manoa

Hawaii Institute of Marine Biology

P.O.Box 1348 • Coconut Island • Kaneohe, Hawaii 96744

Cable Address: UNIHAW

November 6, 1973

Mr. Michio Takata
Division of Fish and Game
1170 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Takata:

The delay by the Board of Land and Natural Resources in acting upon proposed regulation 36 is unfortunate. Exploitative pressures (both commercial and private) directed towards our green turtle colony have undoubtedly increased substantially in recent weeks due to the general uncertainty of how much longer and at what size the capture of these animals will be permitted. Human nature in many individuals will dictate that "turtles be taken while the taking is good." It is ironic that the efforts to safeguard these animals may be temporarily responsible for even greater exploitation.

I was encouraged to learn that Mr. Kido considers the proposed regulation to be meritorious. All evidence and data which has been brought to my attention strongly indicate that this regulation should and must be enacted with all due haste if the State is to protect, preserve and wisely utilize such a unique resource. Holding public hearings on the other islands will in one respect be beneficial in that the need for this protective measure will receive even greater public exposure than has already occurred. I can say with certainty that many concerned individuals both on the mainland and in other countries will be closely following the events related to marine turtle protection in Hawaii.

Because of the time delay which has occurred in the normal decision making course of action, I would like to suggest a proposal which seems both reasonable and appropriate. For the remainder of the time that the regulation is under consideration a temporary moratorium could be called on the taking of all marine turtles for any purposes. In calling such a moratorium our colony would be

Mr. Michio Takata
November 6, 1973

Page 2

relieved from pressures by man until the matter is settled.

I look forward to hearing your views on this suggestion.

Sincerely,
G.H.B.

George H. Balazs
Jr. Marine Biologist

GHB:bd

cc: Mr. Sunao Kido
Mr. Newton Miyagi
Mr. Moses W. Kealoha
Mr. Larry Mehau
Mr. Manuel Moniz, Jr.
Mr. Hisao Munechika
Mr. Kenji Ego
Mr. Eugene Kridler

October 27, 1973

Mr. Michio Takata
Division of Fish and Game
1170 Punchbowl Street
Honolulu, Hawaii 96813

Dear Mr. Takata:

From a telephone conversation this morning with Mr. Ego, it is my understanding that the Division of Fish and Game would like to include a phrase in proposed regulation 36 which specifically states that commercially produced marine turtles may be sold within the State. In this respect, I would like to suggest the following changes to accommodate this matter. The last two words (to take) in the first sentence of Section 2 could be deleted. "To take" could be added to the beginning sentences of both Section 2a and 2b. A Section 2c could be added that would read "To possess, sell or offer to sell the captive reared progeny obtained from captive marine turtles. Animals or parts thereof offered for sale must have certification that they are the progeny of captive populations." I believe that such an addition would adequately cover this aspect.

I will be on the big island between October 28th and the 31st conducting follow-up tagging studies on green turtle feeding populations found along the South Kohala coast. If I can be of any further assistance on proposed regulation 36, please feel free to call me upon my return.

Sincerely,

George H. Balass
Jr. Marine Biologist

GHB:md

cc: Mr. Gene Kridler
Mr. Kenji Ego
Dr. Frank Radovsky

March 12, 1974

Mr. Kevin Bowler
Curator of Reptiles
Philadelphia Zoo
Philadelphia, Pennsylvania

Dear Mr. Bowler:

Your name has been referred to me as a person interested in the conservation and natural history of marine turtles. It is my understanding that you recently conducted experiments on the transplanting of loggerhead nests. I would be most interested in learning the details of this work. Any reports or articles on this subject that you can forward to me would be greatly appreciated.

I have enclosed several articles which I am sure you will find interesting if you have not already had the opportunity to review them.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

Encls.

February 15, 1974

Mr. Jean Tapu
Chief Fisheries Officer
Papeete, Tahiti
French Polynesia

Dear Mr. Tapu:

I have read with great interest the article entitled "Development of the turtle project in French Polynesia" which only recently appeared in the South Pacific Island Fisheries Newsletter (No. 10 Nov. 1973). As a portion of my research deals with population ecology studies of nesting green turtles at French Frigate Shoals in the Northwestern Hawaiian Islands, I would be greatly interested in learning more about your project at Scilly Atoll. I was quite surprised to read that mature females were being captured and held in a pen for a considerable length of time before tagging and releasing. Would not this practice have an adverse effect on the nesting behavior of the animal? One might suspect that this would be particularly true if only a portion of the egg complements had been deposited for that season. In addition there may be cause for concern on releasing the animal at a time later than when the naturally occurring departure would take place from the nesting beaches.

Marine turtles hold a special interest to me and I look forward to hearing of any future plans you may have in this area. Thank you in advance for any information you may have to offer.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

cc: R. H. Baird

February 14, 1974

Mr. J. Osbert Ebanks
West Bay
Grand Cayman Island
British West Indies

Dear Mr. Ebanks,

I have enclosed the photograph which I took on my recent trip to Cayman Island. I very much enjoyed our discussion about turtle fishing and hope that one day we will meet again.

Very best wishes.

Sincerely,

George H. Balazs

GHB:nd

Encl.

March 6, 1974

Mr. Earl B. Baysinger, Acting Chief
Office of Endangered Species and
International Activities
Bureau of Sport Fisheries and Wildlife
Washington, D. C. 20240

Dear Mr. Baysinger:

This is in reference to your letter of February 22 which requested additional data on the Hawaiian green turtle colony. Unfortunately the questions you have asked are such that answers can only be obtained after conducting intensive studies at the nesting site over a number of years. My 1973 investigation was the first of its type in the Hawaiian Archipelago therefore further work should be carried out. I have submitted a comprehensive project proposal for additional marine turtle studies to Mr. Palmer Sekora, Refuge Manager.

Hopefully approval of the work plan as well as the granting of a necessary minimal funding request will be forthcoming from the Regional Director's office.

The following data have been derived from investigations on green turtles in other areas of the world and may only be partially applicable to the Hawaiian colony.

Minimum, maximum and average size of first year breeding males and females - females nesting in Costa Rica probably first reach reproductive size at a carapace length of 36 inches. Variation undoubtedly exists between individuals. No data are available on males, however, due to the incidence of basking in the Northwestern Hawaiian Islands valuable information on this sex could be compiled during future studies. During the 1973 investigation female green turtles nesting at French Frigate Shoals had carapace lengths ranging from 33 to 41 inches.

Mr. Earl B. Baysinger
Page Two
March 6, 1974

Average growth rate for both sexes after the first breeding season - females in the Caribbean have been shown to only increase one-tenth of an inch per year in carapace length after maturity. It can therefore be said that some turtles are large because of age, and some are large because they obtained a greater carapace length before reaching sexual maturity. No information is available on males.

Sex ratio in wild populations - the little data that has been collected suggests that females may slightly outnumber males in the feeding grounds. Censusing at breeding sites often indicates a greater number of males although several factors, including migration schedules and sexual activity, may complicate such estimates.

I hope that this information will be of assistance to the Bureau's review of marine turtles. I would be pleased to aid you in this work whenever possible.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

March 1, 1974

Dr. Heinrich L. Bregulla
Naturalist
New Hebrides Cultural Center
Port Vila, New Hebrides

Dear Dr. Bregulla:

Mr. Bryan of the Pacific Information Center at the Bishop Museum has requested that I answer your letter concerning the conservation and protection of sea turtles. As I am involved in research on the life history of the Hawaiian green turtle and have directed efforts towards obtaining further protection for our colony, I hope that I can be of assistance to your conservation work in the New Hebrides. Unfortunately, I have no data on nesting areas in your islands, species present, or any other information that would help me better understand your sea turtle situation. However, from your letter I will assume that the green turtle (Chelonia sp.) is present and no protection exists at the nesting beaches. This of course will surely lead to the complete destruction of your colony,, especially if increases in tourism are occurring with the accompanying monetary incentive and demand causing heavy exploitation to take place. The ideal situation would be to call a complete moratorium on the taking of all sea turtles until careful surveys could be conducted on both breeding and feeding populations. This would provide a basis from which the status of the species could be evaluated. I suspect that such a moratorium would be difficult to enforce and may not be practical if the native people depend on turtle meat as a protein source. In addition, you may not have the funds or qualified personnel who are interested in conducting such a survey. As an outsider, I would therefore only recommend that the following be initiated.

1. Provide complete protection for eggs and turtles on the beaches and do not allow capture in the waters off the nesting beaches during those times of the year that egg laying occurs.
2. Prohibit the selling of turtle products to the tourism industry. By removing the incentive you will automatically decrease the exploitation.

Dr. Heinrich L. Bregulla
March 1, 1974

Page 2

3. Do not allow exportation of turtle products to foreign countries. Countries such as Japan are known to purchase turtle for their own tourist industry. Such practices only act to destroy a lesser developed country's natural turtle resource, thus leaving very little for the indigenous people's supplementary food supply.
4. Try to gather as much information as possible on turtles nesting and feeding around your various islands. If data already exists, I would greatly appreciate receiving a copy so that I might better understand the problems you are confronted with.

To the best of our knowledge the Hawaiian green turtle is confined to the Archipelago and makes up the last viable colony in the United States. Nesting now takes place only in the uninhabited Northwestern Islands (480 miles from Honolulu) although 30 to 40 years ago several sites existed on the major inhabited islands. Overfishing, increased human population and resort and housing developments have all acted to decimate the colony. Although the single nesting area is Federally protected, commercial fishing still takes place in State controlled waters. Two protective measures, one before the legislature and one before the State Fish and Game Division, are now pending and hopefully passage will be obtained shortly. Both laws would ban selling of turtle and place other restrictions on capture for home use. Hawaii has been very slow in protecting her sea turtles.

I have enclosed several articles which you may find interesting. Please keep me informed on the progress of your turtle work as I am very interested in all Pacific populations.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

cc: Mr. E. Bryan

Encls.

April 8, 1974

Mr. W. L. Janney
Editorial Staff
National Geographic Society
Washington, D.C. 20036

Dear Mr. Janney:

Thank you very much for your letter of April 5 concerning my request for support to document modern day Caymanian turtle fishing off the coasts of Nicaragua and Honduras. Dr. Snider has already informed me that National Geographic would be unable to provide the minimal funds necessary for this type of project.

I was interested to learn that you had received several communications on commercial turtle farming in recent weeks (please note that farming entered into my project only as a supplemental topic). I feel certain that the Society will proceed with all due caution in publishing an article on turtle farming. Promotional literature which has been widely distributed by Mariculture, Ltd. has, in my opinion, represented an adverse factor to the survival of the species. I have enclosed a copy of my correspondence to a Honolulu super market which will further clarify my thoughts on this subject.

Thank you again for giving consideration to my proposal.

Sincerely,

George H. Balazs
Jr. Marine Biologist

BHB:ah

February 22, 1974

Director
Department of Conservation
State Office Building
Springfield, Illinois 62706

Dear Sir:

It has recently been brought to my attention that Illinois has a relatively new endangered species law which prohibits the importation of several species of sea turtles. As an individual involved with the conservation and survival of all sea turtles, I would greatly appreciate receiving further information on your law and, if possible, an official copy.

As you may be aware, the green and loggerhead sea turtle have been recently nominated by the Department of the Interior for inclusion on the endangered species list. I have enclosed a copy of my correspondence on this matter for reference purposes.

Thank you in advance for your assistance.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

Encl.



University of Hawaii at Manoa

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

February 19, 1974

Mr. Philip M. Yamagata
4597 Olohena Road
Kapaa, Kauai 96746

Dear Mr. Yamagata:

Many thanks for telephoning and explaining your position to me on the proposed marine turtle protection regulation. I appreciated your frankness in stating the part you have played in having the measure's enactment once again delayed by the State Land Board. Although your rationale for the quartering of shore caught turtle in order to facilitate transport over rough terrain seemed to be well reasoned, I am sure that you realize this to be strictly an enforcement problem over which Mr. Tokata and his staff should have final judgement. As we discussed, quatering and removal of meat from the upper shell in those animals taken offshore must definitely not be allowed to take place if the regulation is to be enforceable. In this respect, you may be interested in the enclosed statement which was recently sent to me unsigned from Kauai. I am generally quite skeptical of anonymous letters, however, the points brought out certainly concur with the numerous other reports that have been made concerning the use of firearms and, in fact, are similar to your own comments. It is unfortunate that the delays in giving protection to our turtles have actually aided those persons who are willfully destroying a unique segment of Hawaii's environment for their own personal gain.

In an attempt to halt the sale of turtle before either State or Federal laws go into effect, I have sent out the enclosed letter of appeal to 20 select restaurants throughout the State that serve turtle. As you are aware, a number of these establishments are located on Kauai. I believe that we are both in agreement on the devastating effects of the commercial incentive and demand, therefore, I ask you to join with me in urging restaurants on your island to voluntarily stop purchasing turtle meat. A letter of support from a respected member of the Kauai community such as yourself would surely exert a positive influence in this matter.

A limited amount of private funds have been made available to me for the reproduction of conservation literature on marine turtles. I plan to distribute this information in the near future in order to help stimulate an

Mr. Philip M. Yamagata

Page Two

February 19, 1974

awareness for the unique nature of marine turtles. An excellent children's article will also be included provided that the publisher will allow reprints to be made. I look forward to your suggestions as to where this material can be sent and distributed on Kauai in order to do the most good.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosure

February 22, 1974

Dr. Harold G. Haines
Department of Dermatology
School of Medicine
P. O. Box 875, Biscayne Annex
University of Miami
Miami, Florida 33152

Dear Hal,

Thought it might be mutually beneficial if we stay in touch, so I am initiating the first letter by sending you a copy of Archie's Audubon article. Feel sure that you will enjoy it. I found things much the same when returning to Honolulu, that is, work stacked to the ceiling. Hope the remainder of your stay at Grand Cayman was pleasant and productive.

I would very much like to correspond with Julie Booth, however, I have no idea of her present address. If you have it, would you please forward it to me at your earliest convenience.

My best wishes to you, Gerbert, et al.

Sincerely,

George H. Balass

GHB:md

Encl.

February 19, 1974

Dr. William Bruce Ezell
Department of Biology
The Citadel
Charleston, South Carolina 29409

Dear Dr. Ezell:

Sorry that I've taken such a long time to get a letter off to you after my return to Honolulu. I spent my last day in South Carolina visiting with Burkert Neely at the Cape Romain Refuge. He gave me an excellent tour of Cape Island, the site of most loggerhead nesting. Needless to say, I was impressed and would dearly like to spend a portion of one summer doing work on the nesting population. Of course, that would mean neglecting the Hawaiian green turtle, something I am not as yet ready to do. In any event, Mr. Neely is a very personable and capable man and from our discussions I gathered that he is collecting relevant and essential data.

After a day in Miami, I visited Grand Cayman Island for four days examining both the green turtle farm and the wild turtle fishing industry and butchery. It was really an interesting and informative trip. I have enclosed a copy of my letter to the Bureau of Sport Fisheries and Wildlife concerning the proposal to classify the green and loggerhead as endangered. You may be interested in the comments on premature turtle farming ventures. If you haven't already, please be sure to express your support (Dr. Forsythe too) for federal loggerhead protection. It is amazing how few people take the opportunity to make their feelings known to the Bureau on important matters such as this. Perhaps the local Sierra Club can also submit testimony.

Concerning your interest in field research through the Bishop Museum, I have spoken to Frank Rodovsky and he has informed me that no funds are available for support. He indicated that the Museum would very much like to be able to have such a program, but unfortunately there is presently not enough money to do justice to the regular staff. He did mention that some space and facilities for short-term work could possibly be arranged for visiting investigators. I have enclosed a brochure on our own Institute, however, this also is not the type of program that you expressed interest in. I will forward any new information that I may come across.

Dr. William Bruce Ezell
Page Two
February 19, 1974

Have you come up with a way of stopping Monroe Metals from dumping their junk in the Ashepoo River? Truly incredible what money and politicians can do.

I will greatly appreciate receiving any new information, etc., on the loggerhead situation in South Carolina during coming months.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosures

February 13, 1974

Mr. Palmer Sekora
Bureau of Sport Fisheries and Wildlife
337 Uluniu Street
Kailua, Hawaii 96734

Dear Palmer,

I have enclosed the revised project proposal for continuing Chelonia investigations at French Frigate Shoals. Hopefully, the Bureau will consider this work to be of significant importance to their green turtle conservation efforts and provide the modest funding which I have requested for the 1973-74 season.

As I mentioned during your recent visit to Coconut Island, I would be most enthusiastic about accompanying you to any of the Refuge locations which possess green turtle populations. This would include Johnston Atoll, as mature animals are commonly found grazing in the shallows at this location. I am not presently aware of the turtle status of Howland, Baker or Jarvis, however, Gene may have knowledge of nesting and/or feeding populations. Certainly Rose atoll calls for close examination during a nesting season, and as the Bureau is interested in obtaining predation rates on hatchlings at this site (see BSW Prospectus-American Samoa) a reconnaissance visit may already be in your plans. I believe that my presence on several of these trips would be of mutual benefit; I would be able to expand my knowledge and understanding of Chelonia and you would obtain free assistance in your survey work on other wildlife populations. Any considerations that you are able to give to this matter will be greatly appreciated.

Because I have exchanged correspondence with Mr. Schreiner and he has expressed an interest in my French Frigate Shoals work, I would like to forward him a copy of the enclosed proposal simply for his own reference purposes. This could be specifically stated in an accompanying letter. Before I do this, however, I would of course like to know if you have any objections.

Incidentally, one of the turtles which was tagged and released off the beach at the Waikiki Aquarium on January 29, 1973 was taken by a diver in 70 feet of water off Hauula on January 20, 1974. Unfortunately it was not weighed; original weight was 116 pounds.

Mr. Palmer Sekora
February 14, 1974

Page 2

If the Bureau receives any turtle tag returns I certainly would be keen on learning of them.

Mahalo for your assistance and suggestions on the project proposal.

Sincerely,

George H. Balass

GHS:md

February 8, 1974

Mr. Dave Owens
Mr. Jim Wood
Department of Biological Sciences
University of Arizona
Tucson, Arizona 85721

Dear Dave and Jim,

Hope that you'll excuse my addressing this letter to both of you together, however, no sense writing the same thing twice. I would imagine that by now you have settled in to the research grind once again (or in Jim's case, thesis writing).

After leaving Charleston on Friday afternoon I had a really good trip to Miami where I stayed overnight and flew LACSA the next morning to Cayman. Bob Kinsey, who is with the Zoology Department here at the University, had visited the Island several times before and recommended the Coral Caymanian. John, Julie et al. also were staying there, so this made it nice for turtle discussions. I spent my first day getting to know the Cayman people and poking around town finding out all sorts of interesting little pieces of information. Really an unusual society. On the second day I got in touch with Glenn and he gave me a first class tour of the farm. Really a fine fellow and I hope to someday show him hospitality here in Hawaii. I went out to the farm again on the third day, although this time on my own. During the day Glenn and most every one else associated with the facility were involved with meetings. Bill Rainey, H. Haines, G. Rebell and S. Ayres finally arrived and after dinner we all had a long talk which lasted until 2:30 a.m. I'm sure it was a very productive get-together as I learned a lot and, hopefully, they may have learned something from me. My morning return flight was cancelled until the afternoon, so I got the chance to see into Salt Creek and tour West Bay. I just made my connection in Miami to L. A. by 15 minutes. So I believe my visit really turned out good. I'm not sure it strengthened any beliefs I may have had that Mariculture will solve their necessary problems within the near future and save the species. Incidentally, I received the impression that plans were going ahead to construct a new farm in Puerto Rico four times the size of the present one. No one seemed to be able to answer my question as to where the 100,000 plus eggs a year will come from.

Mr. Dave Owens
Mr. Jim Wood
February 8, 1974

Page 2

My Macrobrachium nutrition presentation is being retyped and reduced to make it more convenient for mailing. I was surprised at the number of requests I received. I'll send both of you a copy within the next week. In the meantime I would really appreciate a pre-proceedings copy of each of your papers, also one of Glenn's as I neglected to ask him while down there. If possible, use airmail as larger envelopes seem to be taking weeks to get here. I still feel irritated that the Conference was scheduled in such a manner as to not allow me to hear each of your talks.

Mahalo, best wishes, and let's stay in contact with each other.

George H. Balazs

GHB:md

February 8, 1974

Dr. R. H. Baird
Fisheries Officer
South Pacific Commission
Post Box D.5
Noumea CEDEX
New Caledonia

Dear Dr. Baird:

Many thanks for your letter of January 17th. I have recently received reprints of a publication that may be useful to your work. A copy has been enclosed.

During the week of January 21st I attended the World Mariculture Society meeting in Charleston, S. C. and presented papers both on Macrobrechium nutrition and marine turtle conservation. I had the good fortune to meet with Dr. Michel and learn of his mariculture research in Tahiti. After the conference I spent four days on Grand Cayman Island, B. W. I., visiting the much publicized commercial green turtle farm. Unfortunately, the recent success of limited hatchling production was not the result of the completion of the life cycle but rather the spawning of adult wild caught turtles that had been held for various lengths of time ranging up to three years.

I have also enclosed a somewhat old news clipping on the Torres Strait farms which was only recently sent to me. Please keep in touch as I am greatly interested in your green turtle work.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

Encls.

February 8, 1974

Assemblyman MacGillivray
California State Capital
Sacramento, California

Dear Mr. MacGillivray:

At the earliest possible opportunity, I would greatly appreciate receiving a copy of your Assembly Bill No. 1502 relating to marine turtles and dated April 24, 1973. A brief status report on this measure would also be very helpful.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

February 8, 1974

Dr. John Craven
State Marine Affairs Coordinator
Holmes 401

Dear Dr. Craven:

As you are aware, I have been involved in various aspects of marine turtle research over the past two years. Because the Waikiki Aquarium facility offers unique opportunities for conducting investigations on large adult turtles, I believe that it would be highly productive if cooperative studies were to eventually be initiated.

When the present crisis period for the Aquarium has passed, it would be greatly appreciated if your office would assist in establishing lines of communication that would allow for the consideration of such research. Given the proper opportunity, I suspect that many possibilities for cooperative University research exist at the Aquarium. Perhaps the recent Sea Grant Newsletter story will stimulate similar interests in this area.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

February 1, 1974

Mr. Burkett Neely
Refuge Manager
Cape Romain National Wildlife Refuge
Rt. 1, Box 191
Awendqw, S. C. 29429

Dear Mr. Neeley:

Again, many thanks for your hospitality and tour of the Refuge during my recent trip. As I have never had the opportunity to observe this type of ecosystem, I found the entire experience very enlightening. After leaving South Carolina I spent four days on Grand Cayman Island visiting with the operators of Mariculture, Ltd. (sea turtle farm). Based on my observations, I can see no reason why their products should be exempted from importation restrictions if the green turtle is listed as an endangered species. Nearly all their eggs are obtained from natural nesting beaches and they have proceeded on a course of economic expansion and the widespread promotion of sea turtle products before solving their biological problems. In fact, there is no assurance that they can ever solve these problems.

This morning I talked to Palmer by telephone and gave him your best regards. He will be visiting our Institute next Friday to discuss further studies on the green turtle in the Northwestern Hawaiian Islands. Let us stay in contact on sea turtle matters of common interest.

With best regards,

George H. Balazs
Jr. Marine Biologist

mk

February 16, 1974

Mr. Hans N. Neuhauser
127 Abercorn Street
Savannah, Georgia 31401

Dear Mr. Neuhauser:

While attending the World Mariculture Society meeting in Charleston, S. C. during the week of January 21st, your name was referred to me as an individual concerned with the conservation of marine turtles. As a large portion of my research deals with the green turtle in the Hawaiian Archipelago, I feel that it may prove valuable to establish lines of communication. As you are aware, both the green and the loggerhead have been proposed for inclusion on the endangered species list. I have enclosed a copy of my correspondence to the Bureau on this subject.

While in South Carolina I was fortunate enough to spend a day with Mr. Burkert Neely at the Cape Romain National Wildlife Refuge and learn of the problems associated with loggerhead protection. I was quite disappointed to hear that little interest exists for loggerhead studies in South Carolina outside of the Bureau's activities. I also spent an afternoon with Drs. Bruce Ezell and Dennis Forsythe at The Citadel. Hopefully, the newly formed Charleston Sierra Club, of which they are members, will submit written support for federal loggerhead protection.

I would greatly appreciate receiving information on your involvement with marine turtles.

Sincerely,

George H. Balans
Jr. Marine Biologist

GHB:md

Encl.

February 20, 1974

Mr. David Olsen
U. S. Department of the Interior
Fish and Wildlife Service
Bureau of Sport Fisheries and Wildlife
Washington, D. C. 20240

Dear Dave,

Thought that you might be interested in reading a copy of the letter which I submitted to the Director in favor of listing the green turtle as endangered. The State of Hawaii has still not acted on the proposed protective regulation (see enclosed news clipping) so I certainly hope that federal protection will eventually be given.

With Palmer's assistance, I have submitted a project proposal for further turtle studies at French Frigate Shoals. It should be reviewed by the Regional Office sometime this week. I've enclosed a copy, but of course this is only for your own information so you will know what sort of things may be happening here in Hawaii. I'll let you know what response I get. Hopefully, it will be receptive because I am quite enthusiastic about getting back to East Island and the (dare I say "my") turtles.

Will keep you up to date on important happenings here in the State.

Sincerely,

George H. Balazs

P.S. I understand that Gene will be moving to his own separate office in the near future.

GHB:md

Encls.

February 20, 1974

Dr. Edward Schallenberger
Sea Life Park
Makapuu Point
Waimanalo, Hawaii 96795

Dear Ed,

As several months have passed since we originally discussed the possibility of a joint Sea Life Park - University of Hawaii marine turtle project, perhaps we should get together in the near future and examine what can be initiated within the limits of our resources. During a recent trip I had the opportunity to visit the Grand Cayman Island turtle farm and examine facilities which included an artificial beach for nesting. On a small scale, such an area could be easily incorporated into your park. Grand Cayman's success has thus far been limited to one season of nesting (Spring 1973) by 19 out of 60 adults, all of which were captured as adults. Thus far no farm reared animals have nested in captivity.

I look forward to hearing from you at your earliest convenience and as your busy schedule will allow.

Sincerely,

George H. Balazs

GHB:md

February 20, 1974

Dr. Zoula Zein-Eldin
National Marine Fisheries Service
Gulf Coastal Fisheries Center
4700 Avenue U
Galveston, Texas 77550

Dear Zoula,

Many thanks for your letter of February 15th and accompanying action that you have initiated in this matter.

For reference purposes, I have enclosed copies of correspondence by Dr. Archie Carr on the subject of green turtle culture. Such topics of importance to the field of mariculture most certainly should be fully explored by members of our society - and what better place than at the annual meeting!

Best wishes for the coming year.

Sincerely,

George H. Balass
Jr. Marine Biologist

GHB:md

Encl.

February 16, 1974

Dr. Wayne King
Curator of Reptiles
New York Zoological Society (Bronx Zoo)
Bronx, New York 10460

Dear Dr. King:

Dr. David Ehrenfeld of Barnard College has suggested that I contact you in reference to the conservation of marine turtles. As you may be aware, attempts have been underway for some time here in Hawaii to obtain at least partial protection for our green turtle. I have enclosed two pieces of background information on the situation.

During June and July of 1973 I conducted an intensive tagging program at the French Frigate Shoals breeding grounds in cooperation with the Bureau of Sport Fisheries and Wildlife. Additional studies are planned for this coming season. In addition, I presently have eighty-five 18-month old greens and sixteen 24-month old hawksbills which are being utilized in nutrition studies.

I would very much enjoy hearing from you and learning of your work with marine turtles.

Sincerely,

George H. Balass
Jr. Marine Biologist

GHB:md

February 16, 1974

Dr. Wayne Gagne
Entomology Department
Bishop Museum
Honolulu, Hawaii 96818

Dear Dr. Gagne:

As you are aware, both the green and loggerhead turtle have been proposed by the Department of the Interior for inclusion on the endangered species list. I have enclosed a copy of my correspondence relating to this matter. I feel certain that thoughtful testimony from conservation organizations and/or scientists here in Hawaii will play an important part in giving these animals the protection necessary. I would like to ask you to urge your colleagues to submit supporting statements to the Director, Bureau of Sport Fisheries and Wildlife, U. S. Dept. of the Interior, Washington, D. C. 20240 within the next 10 days.

I thank you in advance for any assistance that your busy schedule will allow you to offer.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

Encl.

15, 1974

Mr. Glenn Ulrich
Mariculture, Ltd.
P. O. Box 645
Grand Cayman Island
British West Indies

Dear Glenn,

The enclosed photograph is for the young lady in the gift shop.
Hope she enjoys it.

While in Cayman you indicated that some of Schulz's work in Surinam had been translated. My files show two publications entitled (believe it or not) Zeeschildpadden, Deel II: Seechildpadden in Suriname. Dienst Landsbosbeheer Suriname, 1964, pp. 1-14 and 1968, pp 1-103. Either or both of these would be a valuable addition to my personal marine turtle library and, if possible, I would like to have copies. Realizing that the photocopying charges would add up, I of course would be most happy to pay for all costs involved. Hope you can arrange this for me.

I have enclosed a copy of my conference presentation in case you have interests in fresh water prawns.

Mahalo, aloha and best wishes!

George H. Balass

GHS:nd

Encls.

February 6, 1974

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

Dear Sir:

This letter is in reference to the Department of the Interior's proposal to classify the green and loggerhead sea turtles as endangered species. As an investigator who has been actively involved in marine turtle research and conservation, I would like to take this opportunity to offer comments and suggestions on the proposal.

I feel certain that the Department has conducted, as I have myself, a comprehensive review of the available literature on the status of the green turtle. Such an exercise reveals in no uncertain terms that exploitative pressures coupled with substantial international commerce and habitat destruction have acted synergistically to reduce population levels throughout the world. There are no indications that the adverse factors will lessen by themselves, in fact, there is now every reason to believe that the green turtle will be subjected to even greater exploitation and commerce in the years ahead. Without significant protective mechanisms enacted at an early date, the outcome will surely be the economic extinction of the species. When compared to the biological data which has been compiled on other vertebrates, our understanding of the green turtle is truly sparse. Minimum numbers necessary to maintain viability in this long range migrant reptile are unknown, and quite possibly the economic extinction will signal the irreversible biological extinction of the species. By every available means of evaluation the green turtle qualifies as being endangered. I strongly concur with the proposal and urge that you take all action necessary to ensure protection at the earliest possible date.

Major topics which I believe are of immediate concern to the issue of the green turtle include: 1) taxonomy, 2) the Hawaiian Archipelago green turtle, and 3) the "farmed" green turtle. I would like to comment on each of these areas.

As you may be aware, what is commonly called the green turtle is actually at least two species of the genus Chelonia, which can more or less be divided into Atlantic (Chelonia mydas) and Pacific (Chelonia agassizi)

Director
Bureau of Sport Fisheries and Wildlife
February 6, 1974

Page 2

stocks. I say more or less because further taxonomic studies need to be conducted, particularly in the Pacific. Overlapping undoubtedly occurs in some populations, therefore in many areas it may be difficult to establish distinct differences. From a practical point of view, the differences between mydas and agassizi are not all that great. Further, there can be no question that Chelonia in the Pacific is in as great a difficulty as her close relative in the Atlantic. I bring out these points because of the Federal Register's usage of both the genus and species scientific names (Chelonia mydas) when referring to the green turtle. I assume that the Department intends to protect all green turtles regardless of species, subspecies or geographical location. To do otherwise would severely weaken the animal's precarious position and create near impossible enforcement and identification problems. The problems of differentiating between hawksbill (Eretmochelys sp.) and green (Chelonia sp.) shell and parts are now difficult enough without having to make a distinction between Atlantic and Pacific Chelonia. Rather than using the species name, I suggest that the official listing be Chelonia sp. This would provide the necessary protection as well as avoid confusion as to exactly what group of animals are being listed as endangered.

The Hawaiian Archipelago green turtle should be of major concern to the Department of the Interior because it represents the last remaining intact colony within the United States. It is also the only colony of its type that can be assured protection under the jurisdiction of one government at both the feeding and breeding grounds. In summarizing the status of the Hawaiian green turtle one would first emphasize that no state regulations presently exist, or have existed, to conserve this animal and ensure its future viability. This non-management or mis-management approach has led to uncontrolled and increasing exploitation for both commercial and private purposes. "Harvesting" has been known to take place with powerhead and rifle, however, an understaffed State Division of Fish and Game has experienced difficulty in stopping even this illegal activity. Nesting habitat and associated populations have been all but eliminated except for several small sand islets at French Frigate Shoals in the Northwestern Hawaiian Islands. Within recent times active nesting occurred in at least four locations in the major inhabited Islands, however none exist today. Investigations which have been conducted indicate that the French Frigate Shoals nesting population is at such a low level that continued survival may be questionable.

For two years concerned residents have urged that some form of meaningful protection for marine turtles be enacted. The State Division of Fish and Game now apparently sees the necessity of such protection, however there

Director
Bureau of Sport Fisheries and Wildlife
February 6, 1974

Page 3

is little sense of urgency even though all available evidence indicates a need for immediate protection. The State Board of Land and Natural Resources has refused to act on a proposed protective regulation on two separate occasions. Turtles are apparently a political issue and I now seriously question whether any real form of conservation measure will ever be enacted. If the present proposed regulation were enacted as written, there would still be doubt as to whether viability could be retained. Provisions would allow for the taking of turtles 36 inches and larger for home consumption. Together with difficulties in enforcement and probable poaching for backyard selling, a significant drain would continue.

Initially a complete moratorium was believed to be the best approach to the plight of the Hawaiian green turtle. Careful long term studies could then have been conducted to establish whether or not future harvesting could be permitted and at what intensity. Unfortunately, little support for a moratorium was received from State officials or legislators, therefore the proposed regulation was given backing as it represented the best protection possible under the circumstances. Clearly, some form of protection at the Federal level is essential if the green turtle is to be assured survival in the Hawaiian Archipelago.

Efforts will undoubtedly be made by special interest groups to exempt "farmed" green turtles and their products from importation restrictions should the animal be listed as an endangered species. For the past two years I have conducted studies on the growth and nutrition of captive green turtles. I have only recently returned from the Fifth Annual Meeting of the World Mariculture Society in Charleston, South Carolina, as well as a four day visit to the only commercial green turtle farm presently in existence. During the course of this trip I conferred with numerous researchers and businessmen who are also involved with or have knowledge of green turtle culture. Based on my own information and experiences, as well as that obtained from other marine turtle biologists concerned with the survival of Chelonia, I must conclude that given the expertise as it exists today commercial turtle farming represents an adverse factor to the survival of the species. I believe this to be true from both a biological and an economic point of view.

Hatchling turtles can not as yet be produced from captive reared breeding stock, therefore large numbers of eggs must be removed from natural nesting beaches for commercial farming. Arguments have been put forth in promotional brochures to rationalize this removal of eggs, however, based on the scientific information available, this activity must be considered to constitute predation to the naturally occurring populations. The small number of older animals subsequently released to

Director
Bureau of Sport Fisheries and Wildlife
February 6, 1974

Page 4

"replace" the eggs taken can not be considered as acceptable substitutes. Some hatchlings were recently obtained from captive nestings on a commercial farm, however, all gravid animals involved in this occurrence (19 out of 60 total) had been captured as adults and held for various lengths of times ranging up to three years. The life cycle of the green turtle has therefore not been completed in captivity and there is no reason to believe that any commercial enterprise will have the capability of producing its own young within the near future. Mature adults and/or eggs will still have to be removed from the wild. Unfortunately, statements made in promotional literature on commercial green turtle farming have not presented a clear and factual picture of the situation. This misinformation, which has been widely distributed throughout the world, has, in my opinion, been responsible for creating an overconfident attitude toward the survival outlook of the green turtle. In addition, such literature has stimulated interest in the formation of similar farms in other parts of the world. In all such cases eggs from natural nesting beaches will have to be used. It would appear that sound biological reasoning is rapidly fading away in light of promising economic advantages. To compound matters, promotional advertising campaigns are underway which will glamorize turtle products and create demands where none previously existed. Such demands are apparently necessary if green turtle is to provide the profit margin required for corporate success. Unfortunately, this demand and popularization of turtle products can do nothing but further increase exploitative pressures on natural populations. There is no reason to believe that farmed turtle will even be priced within the foreseeable future to undersell the animal captured from the wild.

It is possible that one day green turtle culture will be an acceptable proposition, however, basic biological problems inherent to the species must first be solved. Premature commercial ventures will only add to already existing problems and further hasten Chelonia down the road to extinction.

Throughout this discussion I have referred only to the green turtle as this animal has been central to my work. I have, however, reviewed the status of the loggerhead as my interests are in marine turtles as a group and many similarities exist between each genus. I was fortunate enough to recently visit with Bureau personnel at the Cape Romain National Wildlife Refuge and tour Cape Island, a major loggerhead nesting site. It would seem apparent that the loggerhead's survival is also seriously threatened and Federal protection should be granted.

Director
Bureau of Sport Fisheries and Wildlife
February 6, 1974

Page 5

I hope that the information I have presented will prove useful in your evaluation of the proposal. Thank you very much for allowing me the opportunity to comment on this important matter.

Sincerely,

George H. Balass
Jr. Marine Biologist

GHB:md

February 8, 1974

Mr. John F. Waters
Author - Juvenile Books
c/o Thomas Y. Crowell Company, Inc.
666 Fifth Avenue
New York, New York 10019

Dear Mr. Waters:

Copies of the enclosed correspondence will provide you with background information concerning my request for the limited reproduction of your excellent book GREEN TURTLE MYSTERIES.

I feel that the denial was indeed unfortunate and I would greatly appreciate any assistance you can offer on this matter. I might point out that no loss of capital would result in distributing the 50 copies as purchases by the public schools themselves will not occur. They have no specific interest in sea turtles, however, I am attempting to stimulate awareness and interest with the very limited resources at my disposal. There are no University or Institute funds available for this project but rather, as I indicated to Mrs. Siegel, only small donations that have been made. I have sent a similar letter to Mr. Mamoru Funai, illustrator, in an attempt to also enlist his assistance.

I would be most happy to answer any specific questions concerning our work on the conservation of sea turtles.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosure

February 8, 1974

Mr. Mamoru Funai
Illustrator - Juvenile Books
c/o Thomas Y. Crowell Company, Inc.
666 Fifth Avenue
New York, New York 10019

Dear Mr. Funai:

Copies of the enclosed correspondence will provide you with background information concerning my request for the limited reproduction of your excellent book GREEN TURTLE MYSTERIES.

I feel that the denial was indeed unfortunate and I would greatly appreciate any assistance you can offer on this matter. I might point out that no loss of capital would result in distributing the 50 copies as purchases by the public schools themselves will not occur. They have no specific interest in sea turtles, however, I am attempting to stimulate awareness and interest with the very limited resources at my disposal. There are no University or Institute funds available for this project but rather, as I indicated to Mrs. Siegel, only small donations that have been made. I have sent a similar letter to Mr. John Waters, author, in an attempt to also enlist his assistance.

I would be most happy to answer any specific questions concerning our work on the conservation of sea turtles.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosure

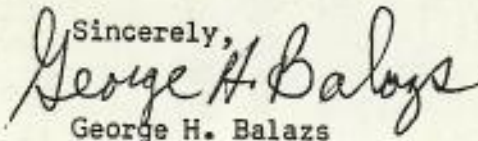
January 16, 1974
P.O. Box 8195
Honolulu, HI-96815

Mr. Fredrick Erskine, Chairman
Board of Agriculture
P.O. Box 5425
Honolulu, HI-96814

Dear Mr. Erskine,

According to an article which appeared in the November 5th issue of the Honolulu Advertiser, the State's Kohala Task Force has funded the System Culture proposal submitted by Mr. Taylor Pryor. To my knowledge, no further information to date has been released on this subject. The Lieutenant Governor's office has suggested that I contact you in reference to several questions concerning this project which they were unable to answer for me. In particular, I would like to know what amount of money has thus far been committed for this work and what future support the Task Force will provide. As I am greatly interested in all aquaculture projects in Hawaii, I would appreciate receiving a list of those persons that serve on the Task Force as well as those persons who have served in a scientific advisory capacity.

Thank you very much for your assistance in this matter.

Sincerely,

George H. Balazs

JOHN A. BURNS
GOVERNOR



FREDERICK C. ERSKINE
CHAIRMAN, BOARD OF AGRICULTURE

WILLIAM E. FERNANDES
DEPUTY TO THE CHAIRMAN

STATE OF HAWAII
DEPARTMENT OF AGRICULTURE
1428 SO. KING STREET
HONOLULU, HAWAII 96814

February 1, 1974

Mr. George H. Balazs
P. O. Box 8195
Honolulu, Hawaii 96815

Dear Mr. Balazs:

Thank you for your letter of January 16, 1974, expressing interest in the System Culture Group aquaculture project that was funded by the Kohala Task Force. The Task Force has provided \$50,000 for a feasibility study based on the project as proposed by the System Culture Group.

Availability of additional funds for this project would have to be based on a possible loan from the Kohala Task Force. However, this would be dependent on the feasibility study showing that the project could be successful, and that there is a market for the products.

Enclosed is a copy of the 1973 Kohala Task Force Report to the Legislature. In it is a listing of the members of the Task Force.

If there are any other questions, please feel free to contact me at any time.

Sincerely,

Frederick C. Erskine
Frederick C. Erskine
Chairman, Board of Agriculture

Enclosure

January 17, 1974

Mr. Keith M. Schreiner, Chief
Office of Endangered Species
and International Activities
U. S. Department of the Interior
Bureau of Sport Fisheries and Wildlife
Washington, D. C. 20240

Dear Mr. Schreiner:

As previously requested, I am forwarding a copy of my report on green turtle research at French Frigate for 1973. Hopefully this information will aid you in your review of the present status of Hawaii sea turtles.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GRB:ah

cc: Mr. Palmer Sekora, USBFSW Kailua

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U.S. House of Representatives
Committee on
Merchant Marine and Fisheries
 Room 1334, Longworth House Office Building
 Washington, D.C. 20515

December 21, 1973

Mr. George H. Balazs
 Junior Marine Biologist
 Hawaii Institute of Marine Biology
 University of Hawaii at Manoa
 Post Office Box 1346 Coconut Island
 Kaneohe, Hawaii 96744

Dear Mr. Balazs:

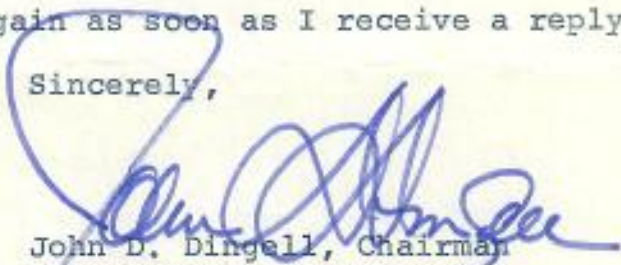
This will acknowledge and thank you for your recent letter concerning the green turtle.

As to whether the green turtle falls within the definition of fish as defined in the Dingell-Johnson Act, I am taking this matter up with the Secretary of the Interior.

I am also requesting that he make a study of other Acts that may authorize funds for green turtle research, either on a Federal grant basis or a Federal-State matching fund basis.

I will write you again as soon as I receive a reply.

Sincerely,



John D. Dingell, Chairman
 Subcommittee on Fisheries
 and Wildlife Conservation
 and the Environment

November 9, 1973

The Honorable John D. Dingell
Chairman, Subcommittee on Fisheries and
Wildlife Conservation and the Environment
Congress of the United States
House of Representatives
Washington, D. C. 20515

Dear Representative Dingell:

A portion of my research presently deals with population ecology studies of the green turtle (Chelonia sp.) in the Hawaiian Archipelago as well as nutrition work on this species reared in captivity. As you are probably aware, this animal has been depleted over much of its range throughout the world due to overfishing and habitat destruction. The last remaining intact breeding and feeding colony of this unique salt water reptile to be found in the United States is located in Hawaiian waters.

The non-availability of funds in previous years has prevented comprehensive studies from being carried out on this animal within the State. Due to a lack of data, the local Fish and Game Division has been reluctant to enact protective regulations around the major Hawaiian Islands. Any number of turtles may now be taken at any size throughout the year. Increases in tourism have brought a greater demand for turtle steak because of its "exotic" food appeal. Although turtle breeding grounds in the Northwestern Hawaiian Islands (500 miles from Honolulu) are totally protected by the Department of Interior because they fall within a wildlife refuge system, the turtle's migratory habits remove them from this protection during most of their life. It is now widely recognized that a marine turtle colony cannot be safeguarded against overexploitation by merely protecting the breeding grounds.

During June and July of this year I was able to conduct the first in-depth study on members of our breeding population. To say the least, funding for this project was on a "shoe string and bailing wire" basis. Nevertheless, valuable data was obtained. Protective regulations, based in part on my

The Honorable John D. Dingell

Page Two

November 9, 1973

findings, are now being prepared by the State Division of Fish and Game. More intensive research of this nature will need to be carried out in coming years if a sound long range management program is to be devised.

One of the explanations given by the State Fish and Game Division as to why more turtle research is not conducted is that marine turtles do not fall within the definition of "fish" or "wildlife" that is presented in the Dingell-Johnson Act. It has therefore been concluded that Federal money available through this Act may not be utilized for marine turtle studies. If this is in fact the case, it would seem to be very unfortunate that such unique animals should be excluded.

I would greatly appreciate hearing your views on this matter and would be pleased to send you further information on marine turtles in the Hawaiian Islands.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

HAWAII VISITORS BUREAU

WAIKIKI BUSINESS PLAZA, HONOLULU, HAWAII 96815

CHAIRMAN OF THE BOARD

January 7, 1974

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

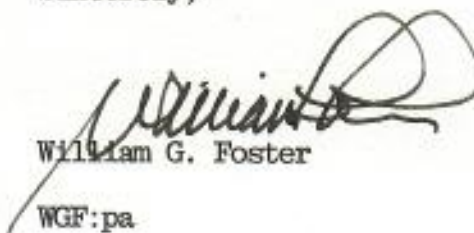
Dear Mr. Balazs:

My apologies for this retarded response to your letter of December 2.

I think the concern you have raised here is a valid one and I do want to assure you that this concern will be brought before the appropriate Bureau committee for action.

Thanking you for calling this matter to our attention, I remain

Sincerely,



William G. Foster

WGF:pa

January 3, 1974
P.O. Box 1346
Kaneohe, Hawaii 96744

Mr. William G. Foster, Chairman
Hawaii Visitors Bureau
2270 Kalakaua Avenue
Honolulu, Hawaii 96815

Dear Mr. Foster,

In my letter of December 2 I outlined some of the survival difficulties now being encountered by populations of green sea turtles, particularly those here in Hawaii, because of increasing consumer demand and exploitation. I also enclosed background literature to help better acquaint you with the widely recognized plight of sea turtles throughout the world.

I feel certain that your work day must be full of what may seem to be more pressing issues, however, the protection and perpetuation of Hawaii's unique environment is a subject which none of us can afford to neglect. This would be particularly true for those in the tourist industry as our natural biota must surely be the major attraction to visitors. It is by belief that the Hawaii Visitors Bureau can do a great deal towards protecting our green sea turtles. This animal should be considered as a non-consumable aesthetic resource to the tourist industry because if the present trends continue the outcome will surely be total depletion. I hope that in the very near future you will have the opportunity to take a stand on this very important issue.

Sincerely,

George H. Balazs

December 22, 1973

Mr. Palmer Sekora
U. S. Bureau of Sport Fisheries and Wildlife
337 Uluniu Street
Kailua, Hawaii 96734

Dear Palmer,

Perhaps it would be wise if I were to keep you informed on my progress. I am currently in the midst of preparing a proposal for green turtle research for 1974-75, as well as a summary report on the significant results of the 1973 investigation. I anticipate delivering a draft to your office during the first part of January, at which time we can discuss the various aspects.

I will be in South Carolina for the World Mariculture Society Conference during the week of January 21st and will visit with marine turtle researchers in Florida and the Caribbean during the last part of January and the first week of February.

Sincerely,

George H. Balazs

GHB:nd

December 7, 1973

Mr. Dougal Robertson
Author of "Survive the Savage Sea"
c/o Reader's Digest
Pleasantville, New York 10570

Dear Mr. Robertson:

I have read with great interest your article which appeared in the October, 1973 issue of Reader's Digest. I was particularly interested in the sections which described the capture of sea turtles as these animals are one of my areas of research interest. Your account certainly is testimony to the value of these creatures and sufficient reason for all of us to try and slow the declines which are occurring due to overexploitation. I would imagine that you have already attempted to make an identification as to what kind of turtle you encountered. I have speculated that they were all Pacific Ridges (Lepidochelys olivacea). You are probably aware that a large nesting area exists at Santa Rosa in Costa Rica. An excellent article in the September, 1973 issue of Audubon Magazine describes this colony and a similar article was also presented in a recent National Geographic Magazine.

I would greatly appreciate any additional information you can give me on your experiences with sea turtles while in the Pacific.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

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

January 15, 1973

Dear Miss Jones:

I would like to take this opportunity to thank you for the funds your organization has provided for marine turtle conservation. As you are aware, I am going to use the money to make copies of Dr. Archie Carr's article "Great Reptiles, Great Enigmas." I have received permission from the Audubon Society to reprint this very informative piece of literature.

A portion of the donation will also be used for envelopes and postage to send the material to persons who can be of assistance. Copies will carry the note - "Reprinted with permission of the Audubon Society with funds provided by the Conservation Council for Hawaii and the Hawaii Audubon Society."

Mahalo,

George H. Balazs

mk

Miss Christine Jones
Hawaii Audubon Society
P. O. Box 5032
Honolulu, Hawaii 96814

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

January 15, 1973

Dear Miss Hansen:

I would like to take this opportunity to thank you for the funds your organization has provided for marine turtle conservation. As you are aware, I am going to use the money to make copies of Dr. Archie Carr's article "Great Reptiles, Great Enigmas." I have received permission from the Audubon Society to reprint this very informative piece of literature.

A portion of the donation will also be used for envelopes and postage to send the material to persons who can be of assistance. Copies will carry the note - "Reprinted with permission of the Audubon Society with funds provided by the Conservation Council for Hawaii and the Hawaii Audubon Society."

Mahalo,

George H. Balazs

mk

Miss Shirley Hansen
Conservation Council for Hawaii
161 Polihale Place
Honolulu, Hawaii 96825

Balazs

May 31, 1973

Mr. Peter J. Connally, President
Conservation Council of Hawaii
P. O. Box 481
Haiku, Hawaii 96708

Dear Mr. Connally:

Your letter relating to the green turtle has been forwarded to my office. I am enclosing literature on this subject which you may find informative.

You may be interested to know that Representative Anson Chong presently has a bill (HB 1635) before the legislature which provides for a three-year research management study of these reptiles. Unfortunately efforts to obtain a moratorium on the taking of sea turtles while this study is conducted have not been successful. The State Division of Fish and Game has been considering regulations on the capture of turtles, which myself and Dr. Frank Radovsky of the Bishop Museum proposed to the Animal Species Advisory Commission. However, no action has yet been taken on this matter. This entire subject should be of concern to your members on Maui since my review of State Fish and Game catch records shows that a large percentage is taken on that Island.

I will be conducting a turtle tagging project at French Frigate Shoals for the next six weeks, but would be most happy to speak with you further on this subject when I return. My number is 247-6631.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosure

Balazs

May 31, 1973

Mr. Bruce Benson
The Honolulu Advertiser
P. O. Box 3110
Honolulu, Hawaii 96802

Dear Mr. Benson:

I am enclosing background literature on sea turtles which you may find interesting and informative. As you are probably aware, Representative Anson Chong presently has a bill before the legislature which provides for a research management study of these reptiles in our waters. If a special session is called, it would be most advantageous to our efforts if an article relating to sea turtles were to appear at such a time. It is my opinion that the general public is not concerned about the plight of sea turtles because of their lack of knowledge on the subject. If a special session of the legislature is called, it is my understanding that it will be at the end of July. If you find yourself interested in the "sea turtle" subject after reading this material, I would be most happy to talk with you at a later date.

In order to obtain comprehensive data on our turtle colony, I will be conducting an intensive tagging program for six weeks (June 1 - July 12) at French Frigate Shoals. This is being carried out with the approval and assistance of the Bureau of Sport Fisheries and Wildlife.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

Enclosure

October 23, 1973

Dear Admiral William Morrison
Commander
Fourteenth Coast Guard District
677 Ala Moana
Honolulu, Hawaii 96813

Dear Admiral Morrison:

I would like to take this opportunity to once again thank the United States Coast Guard for their fine assistance to the marine turtle research project at French Frigate Shoals. The most recent investigation which took place between October 11-17th proved to be highly successful in that valuable data was collected on mortality and fertility in natural nests as well as census information on basking and feeding populations. The use of your support facilities for this essential work continues to be greatly appreciated.

Sincerely,

George E. Balass
Jr. Marine Biologist

GEB:ah

cc: Mr. Eugene Kridler-NSFW, Kailua
Mr. John Findlay-NSFW, Portland
Lt. (jg) R. Trainer-COLORADO STA 775
Dr. John Bardach-Director, NIMS

December 8, 1973

Mr. Palmer Sekora
U. S. Bureau of Sport Fisheries and Wildlife
337 Uluniu Street
Hailua, Hawaii 96734

Dear Palmer,

I found our meeting on Friday both interesting and enjoyable and look forward to the future joint efforts in marine turtle studies. As time passed so quickly, several of the topics that were mentioned only briefly should have been discussed in greater detail.

The problem of BSW tags being confusing as to where they should be sent can be corrected the next time a supply is ordered. A special request for small lettering can be made to National Band and Tag Co., Newport, Ky. 41072. The University of Hawaii tags which I had printed contain our complete address, therefore the finder knows exactly where the tag should be sent. Whether he will do it or not is another question. The lettering on these tags is 2 mm high and can be clearly distinguished.

You indicated that it would be advantageous if marine turtle studies were conducted at other locations in the Archipelago. I am in strong agreement. A preliminary proposal which I prepared for the State Fish and Game Division last year called, in part, for field investigations around our eight major Islands. Funding for the proposed study will come from Representative Anson Chong's HB 1635 if and when it passes. Realizing that legislative support can not be depended upon, I have proceeded to do as much as possible within the limits of my time and resources. During May of this year I chartered a 50' vessel which has been available to the University and spent 3 days tagging, measuring and releasing green turtles along the South Kohala coast of the Island of Hawaii. A used seal net from Alaska was converted into a turtle net for this work. A total of 16 animals were caught and all measured less than 26 inches (100 lbs). Two subsequently ended up in our net the very following day after being released. On September 11 one of the tags used in this study was sent to me by a fisherman who had taken the animal at the same location where it was originally marked. It would seem likely that as long as abundant food exists there is little incentive for juveniles to travel. Very little work of this nature has ever been conducted on feeding populations of marine turtles due to the

Mr. Palmer Sekora
December 8, 1973

Page 2

difficulties involved in netting them. The amount of data obtained for the effort expended makes this type of work less desirable than breeding site studies. Undoubtedly this is the reason that most reports on marine turtle research deal with breeding populations and hatchlings.

On January 29, 1973 16 small turtles from the Waikiki Aquarium were measured, weighed, tagged and released off the beach adjacent to the facility. On November 28 a tag from one of these animals was returned to me from Molokai. Capture had been made off the south coast near Kaunakakai.

During March, 1973 BSW personnel helped in the release of a number of adult turtles from the Waikiki Aquarium. These animals were transported to the waters off Lehua Rock via Coast Guard cutter. I believe one of the animals was subsequently recaptured, but am unaware of the details.

On Thursday of last week 9 turtles were released from Sea Life Park. Dr. Ed Schallenberger, the Director, is very much interested in marine turtles and plans will be formulated for cooperative captive research with those animals retained at the Park for display. All of the releases I have described were made because of excessive numbers present in tanks. I was pleased to see these animals returned to the natural population.

As you are already aware, a considerable amount of time has been spent compiling available turtle catch statistics at the Fish and Game Division. I hope to put out a report on this work in the near future, however it must be remembered that only a portion of the take is actually reported. These data represent 25 years of records on turtles around our major Islands.

On my own time and at my own expense I have surveyed former nesting sites on the Island of Lanai. I believe that at one time a very large colony utilized beach areas along the north coast. A short publication will be coming out on this work in the near future. I also hope to visit several other former nesting sites throughout the State.

I would very much like to have you visit our facility here on Coconut Island and see the work underway on the nutrition of marine turtles. You may also be interested in some of the other aspects of our Aquaculture program. Call me at 247-6631 at your convenience and we will include lunch.

Sincerely,

George H. Balass
Jr. Marine Biologist

GHB:md
cc: J. Bardach

December 10, 1973

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

Dear Mr. Takata:

The enclosed article entitled "Divided viewpoints on marine turtle controls" which appeared in the Honolulu Star-Bulletin on December 6 contains numerous points which must be commented upon. The accuracy of the reporters (H. Ching and R. McCabe) who wrote this article has been substantiated by other persons. As an individual who has devoted much time and energy to studying the status of marine turtles in Hawaii over the past two years, I feel obligated to discuss in detail some of the points mentioned.

Several residents of Kauai have charged at the recent public hearing that our current turtle population situation is not as precarious as has been indicated. However, no information has yet been presented which even begins to support this statement. To the contrary, considerable scientific evidence as well as personal observations of many individuals, including former turtle fishermen, have been presented which clearly illustrates that our population is seriously declining in both numbers and distribution. Those who testified on Kauai that they had taken hundreds of turtles in recent years undoubtedly felt that they were illustrating how abundant the animals still are. The fallacy of this argument is, of course, that we have no idea how much effort went into capturing the turtles and the range that was covered compared to previous years. We also have no idea what sizes were taken as they may have been smaller than those formerly caught. In short, professing to have taken hundreds of turtles does nothing more than show us that the situation is much worse than originally thought. In my testimony presented at the September 21 Oahu hearing I stated on page 8 that:

"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 given for Kauai. One wonders just how much of the true catch these values represent since more than several restaurants on Kauai serve turtle steak."

Testimony at the Kauai hearing has proven my suspicions to be correct. Neither of the persons who admitted taking hundreds of turtles in recent years have ever filed a turtle catch report. This takes into consideration all the records which

Mr. Michio Takata
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December 10, 1973

you have allowed us to evaluate between 1948 and July, 1973. It would be extremely naive to think that these animals were taken for home consumption only. We therefore now know with certainty that the large "reported" catch which has given cause for concern represents only a small portion of the "actual" catch. During this period of public exposure to the proposed regulation I have been quite surprised that not one restaurant, to my knowledge, has taken a position on the matter. It seems likely that the non-reported turtle in many cases may be sold on a "back door cash basis" where no records are maintained for reasons beneficial to both parties. Perhaps further investigations into this matter are warranted. I have also heard from reliable sources that in some cases turtle meat from Kauai is shipped to Honolulu buyers.

The statement was made that turtles no longer come close to shore and that plenty are found "at sea." Because green sea turtles are herbivorous and feed on algae, it is unlikely they would be found at sea unless migrating from one island to another. As you are aware, algae is not normally found in water deeper than 100 feet and is mostly found in shallow water where sunlight can penetrate. It is well known that turtle feeding areas are along coastlines close to shore where food is abundant.

Several times it has been stated that 'more studies should be conducted before making regulations.' Although it is recognized that I have spent two years investigating the matter, many people tend to forget that personnel of the U. S. Fish and Wildlife Service, Bureau of Sport Fisheries and Wildlife have studied turtles in the Hawaiian Archipelago since 1966. Their data have shown in no uncertain terms that members of the breeding population in the Northwestern Hawaiian Islands (Hawaiian Islands National Wildlife Refuge) are the very same animals that are unprotected and overexploited around our major inhabited islands. Testimony has already been submitted by U. S. Fish and Wildlife personnel in favor of the proposed regulation. I tend to believe that no matter how much research is conducted or how much evidence is offered, there will still be special interest groups calling for more studies and no regulations so that they can continue to overexploit for their own personal gain a resource that belongs in common to all the people of the State.

Again we hear the suggestion that the proposed size restriction be lower than 36 inches. Sound scientific data was used in your decision to propose a 36 inch limit, as most reproduction first takes place when animals are a minimum of 33 to 36 inches. It is obviously critical to the green turtle's survival that juveniles and sub-adults be allowed the privilege of maturing, laying eggs and contributing offspring so that our Hawaiian population can be perpetuated. This is good management and I fail to understand why this is not readily clear to any person who has taken the time to review the matter. The results of marine turtle mismanagement in numerous areas of the world should serve as an example to the residents of Hawaii where, hopefully, the benefits from wise management can still be realized.

Mr. Michio Takata
Page Three
December 10, 1973

When proposals were first made to protect marine turtles in Hawaii I was in favor of a complete moratorium for several years during which time studies would continue. Because compromises must sometimes be made in order to accommodate differing points of view, I made the decision to support a sound regulation which would permit the taking, for home consumption only, of sexually mature turtles that had the opportunity to reproduce at least once. In this way, those persons that depend on turtle for a portion of their protein would still have the opportunity to obtain it. I still fully support the proposed regulation rather than a complete moratorium, even though the evidence and overwhelming public support surely justifies the enactment of a moratorium.

I have appreciated the opportunity of being able to consult with you from time to time over the past year on this issue. I hope that the State will see fit to adopt the proposed marine turtle regulation intact so that our residents, as well as the rest of the world, may know that Hawaii intends to retain her unique environment by keeping a close watch on her natural resources.

Sincerely,

George H. Balass
Jr. Marine Biologist

mk

Enclosure

cc: K. Ego, Division of Fish & Game
S. Kido, Bd. of Land & Nat. Resources, Oahu Member
N. Miyagi " "
N. Kealoha " "
L. Mehan " Hawaii Member
N. Koniz " Maui Member
H. Munachika " Kauai Member

12/6/73 HONO. STAR-BULLETIN 213

Divided Viewpoints on Marine Turtle Controls

By Harold Ching and Robert McCabe
Star-Bulletin Writers

Officials of the State Department of Land and Natural Resources heard divergent views last night on its proposals to protect marine turtles in Hawaiian waters.

At its Maui public hearing, they heard several speakers advocate the controls: Some said they favored even stronger restrictions.

But on Kauai, they also heard charges that the current turtle population situation is not as precarious as the State and conservationists indicate.

THE PROPOSED regulations are aimed at protecting the leatherback and hawksbill turtles, which are on the U.S. list of endangered species, and the Hawaiian green sea turtle.

Kauai fisherman William Fleming, who said he had caught 200 green sea turtles the past year, said the reason less turtles are seen is that they "get smarter. They do not come where the people are."

Don Moses, who said he took 100 turtles last year and had seen 200 which were taken, echoed the same opinion.

"Are there no turtles, or are they not coming where the people are?" Moses said.

"Commercial fishermen find plenty of turtles at sea. They do not come close to shore.

"YOU SAY THE TURTLES ARE DEPLETED? But you do not know. You should make more study before turning to legislation."

Others favored some controls.

Hans W. Hansen recalled that 30 years or more ago he saw dozens of turtles laying eggs in the sand along the

Na Pali coast "and turtles by the hundreds at Polihale. "But you do not see them any more," he said.

Philip Yamagata presented a statement for his Kauai County Fish and Game Advisory Committee. The five members advocated the rules be changed to allow taking of green sea turtles with an upper back length of 30 inches or more.

The proposed regulation specified a minimum of 36 inches.

THE COMMITTEE SUGGESTED a bag limit of one turtle a week.

On Maui, six of 14 persons who attended the hearing spoke on the regulation and each advocated that controls covered by the proposed regulation be given more muscle.

Ronald Lau, a Kahului teacher, asked that a minimum, instead of maximum, fine be imposed to "prevent too low fines."

He asked also that a two-year moratorium be considered first before the regulation goes into effect.

Peter J. Connally, testifying on behalf of the Conservation Council of Hawaii's Maui chapter, strongly supported the proposed regulation which he said would "serve to halt the much publicized demise of our marine turtles."

BUT HE ALSO URGED that permits for taking turtles for home consumption be administered under stronger guidelines that would guarantee population growth of the turtles.

"Consideration should be given to a moratorium on the taking of turtles until such guidelines are established," he said.

October 23, 1973

Mr. Edwin H. Bryan, Jr.
Manager, Pacific Scientific Information
Center
Bernice P. Bishop Museum
P. O. Box 6037
Honolulu, Hawaii 96818

Dear Mr. Bryan:

Thank you very much for your letter of October 11th describing your work on the history of colonists on Jarvis, Howland and Baker and the reports given on marine turtles. I would be very much interested in any observations made in this area. I would be most happy to cover any xeroxing costs involved in communicating this information to me.

As you may be aware, the taxonomy of marine turtles is in a very rudimentary state. I personally consider our mid-Pacific green turtles as being Chelonia agassizi or Chelonia mydas agassizi in view of their striking differences from the Caribbean stocks. Mrs. Altonn's account of my finding something "new" was her way of saying that the existence of this colony was not previously widely recognized.

I have enclosed a manuscript dealing with my efforts to obtain protection for marine turtles around the major Hawaiian Islands. I would greatly appreciate a copy of your article on Jarvis, Howland and Baker when it is completed.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:ah

enc

October 23, 1973

Dr. Gerald D. Schmidt
Professor of Zoology-Parasitology
University of Northern Colorado
Department of Biological Sciences
Greeley, Colorado 80631

Dear Dr. Schmidt:

Thank you very much for your letter of September 20th listing the identification for the cestodes taken from the Hawaiian monk seal.

I have taken the liberty of sending you a vial containing small crustacea which were collected from lesions in the neck region of a 10 Kg green sea turtle (Chelonia mydas). This animal was captured alive and subsequently released after measuring and tagging. The specimens were gathered by scraping the skin gently with a knife. Again, it is not necessary to return this material. If you are not personally interested in making the identification, perhaps the specimens can be passed along to one of your colleagues.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:ah

Balazs

July 27, 1973

Dr. C. J. Weinmann
Division of Entomology and Parasitology
University of California
Berkeley, California 94720

Dear Dr. Weinmann:

Frank Radonsky of the Bishop Museum has given me your name as a researcher that might be interested in working on tape worms which I recently collected. These specimens were obtained at French Frigate Shoals (480 miles NW of Honolulu) from fresh fecal material of the Hawaiian Monk seal (Monachus schauinslandi). Some of the worms appear to be complete with head. They were alive at the time of collection and were put directly into isopropyl alcohol as the area is very remote and this was the only agent available.

My main area of study is marine turtles however I have reviewed the literature concerning Monk seals and feel certain that no reports have been made concerning tape worms. As you may be aware, this species is only found in the Leeward Islands with numbers estimated to be somewhat below 1,000 individuals.

If you would be interested in cooperatively examining and identifying these beasts, contact me at your earliest convenience.

Sincerely,

George H. Balazs
Jr. Marine Biologist

mk

October 23, 1973

Mr. Issac I. Ikehara
Chief, Division of Fish and Wildlife
Department of Agriculture
Agaña, Guam 96910

Dear Mr. Ikehara,

In your letter of February 1, 1973 you indicated that you would be interested in obtaining information on marine turtle regulations and reports from other areas in the Pacific Basin. For the past 2 years I have directed efforts at obtaining protection for marine turtles around the major Hawaiian Islands. The State Fish and Game Division has proposed a sound regulation which I feel is necessary. The enclosed papers will be informative on this matter. If I can be of further assistance, please feel free to call upon me.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:ah

enc

Turtle farming letter/packet sent 5/16/74

Al. Os. Hi, George Chairman
Frederick Erskine, Vice Chairman
State Dept. Ag.

1428 S. King 96814

Bellinger

First Hawaiian Bank

161 S. King 96813

Cushing

HSPA

1527 Keaumoku 96822

Councilman Farias

Hawaii County, Hilo

Kemura

Hawaii County

Kido

SD LNR

465 S. King 96813

Shelley Mark

SD PED

250 S. King 96813

McElrath | TAGEN
I L W U 451 Atkinson Dr | ILWU

McPeck
N K C D Ass

YIM - Oceanic Properties INC.

W. R. Wood, Editor
HAWAII BUSINESS
Box 913 HONO 96808



University of Hawaii at Manoa

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

March 12, 1974

Editorial Staff,
American Scientist
345 Whitney Avenue
New Haven, Connecticut 06511

Dear Sirs:

Dr. Ehrenfeld has presented some very pertinent facts concerning the interrelationship of commercial green turtle culture and conservation of the species. Promotional brochures which have been widely distributed by the proponents of commercial farming (including security brokers offering stock) have imparted a dangerous false sense of security in the general public as to the safety of Chelonia. Commercial turtle farming as it exists today is not founded on a sound biological basis. No control over the life cycle exists, mortality from stress and disease is significant and an understanding of the nutritional requirements is lacking. The one major advantage to turtle farming has been the availability of eggs from certain natural nesting beaches, a point which advocates have seen fit to exploit by removing large numbers for their own personal gain.

Since the writing of Dr. Ehrenfeld's article, 19 captive females have nested on an artificial beach at the Grand Cayman farm. This event has been hailed as the salvation of the green turtle and offered as sufficient reason for allowing "farmed" products to be extensively marketed. Seldom mentioned concerning this success in captive egg production is the fact that all 19 of the animals involved had been captured from the wild as mature adults. No reproductive successes have been experienced with animals reared at the facility.

Commercial culture which is dependent upon endangered natural populations and at the same time seeks to expand markets and popularize products can only act to hasten a species down the road to extinction.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

March 8, 1974

Mr. Peter T. Wilson
Chief, Marine Resources
Trust Territory of the Pacific Islands
Saipan, Mariana Islands 96950

Dear Mr. Wilson:

I have enclosed several articles dealing with the interrelationships of marine turtle conservation and commercial culture which I feel sure you will find interesting. Unfortunately, the promotional literature that has been distributed by the turtle farm on Grand Cayman Island (Mariculture, Ltd.) has presented a highly distorted view of the "successes" they have experienced and the resultant effects on natural populations where most all of the eggs are obtained. I personally visited this farm during January in order to better understand the true status of turtle culture. The misinformation that has been circulated has acted to prematurely stimulate interest in the initiation of turtle "farms" in other areas of the world when, in fact, no biological basis presently exists to warrant such commercialization.

As you may be aware, I have conducted growth, nutrition and behavioral studies on captive hatching and juvenile green and hawksbill turtles over the past two years. Research of this nature in the fields of nutrition, reproduction and disease is an essential requisite to large scale or commercial ventures if natural populations are not to undergo further degradation. Equally important are the economics factors which will have to be carefully assessed, as indicated in David Ehrenfeld's article.

If I can be of further assistance in this matter please feel free to contact me.

Sincerely,

George H. Balazs
Jr. Marine Biologist

GHB:md

cc: J. Bardach
P. Helfrich

Encls.

March 22, 1974
P. O. Box 1346
Kaneohe, Hawaii 96744

Mr. Arthur Au
Meat Products Purchasing Agent
Holiday Mart Supermarket
801 Kaheka Street
Honolulu, Hawaii 96814

Dear Mr. Au:

As a marine biologist with the Hawaii Institute of Marine Biology who has been actively involved in sea turtle research and conservation, I feel that it is indeed unfortunate that your firm is now attempting to advertise and market imported turtle steak. The exact description of this product at your Honolulu outlet reads:

New Item
Fresh frozen mariculture farmed
prime turtle steak from the
Cayman Islands - 100% top quality
lean meat - no bone or surplus fat
8 ounces - \$3.39

It is my understanding that the importer and distributor of this item is Tropical Seas Enterprise, an individually owned concern which is new to our state. It is also my understanding that promotional brochures prepared by backers of the Grand Cayman farm are being presented to prospective buyers here in Hawaii (such as yourself) in an effort to demonstrate how the farm's commercialization of sea turtle products is acting to "save" the species. I have in my possession a complete set of these pamphlets which I have carefully examined. In addition, I have only recently visited Grand Cayman Island in order to more fully understand the relationships between the conservation of sea turtles and the "farming" that is now in progress. I have also had the opportunity to correspond with numerous sea turtle biologists, both in the United States and in other countries, who are extremely concerned about the adverse effects that will result from the popularization of turtle products. To say the least, statements made in the promotional brochures do not present a clear and factual picture of the true status of turtle farming. Unfortunately, this misinformation has been responsible for creating a confident attitude in the general public concerning the survival outlook of sea turtles. In this respect I have enclosed copies of literature by Dr. Archie Carr and Dr. David Ehrenfeld which give a detailed and factual account of the situation. I sincerely hope that you will have the time to examine this material.

Mr. Arthur Au
March 22, 1974

Page 2

In essence, the "farmed" turtle as we know it today is nothing more than eggs, hatchlings and/or potentially gravid adult females that have been removed from their natural environment and utilized for commercial purposes. Because of the complex life history of sea turtles, you can well imagine the effect that this practice could have on wild populations, particularly when egg removals number in the hundreds of thousands per year. Various rationalizations have been offered as justification for this activity, however, you will find that each has been thoroughly refuted in the literature I have enclosed.

An awareness of the world-wide plight of all sea turtles has surfaced in recent years. It is my belief that this concern will ultimately result in full protection from commercial exploitation, whether it be for premature farming ventures or direct marketing purposes. You are probably already aware of the protective measures for Hawaii's turtles that are now under consideration by the State Fish and Game Division and the Legislature. You may not realize that both California and Illinois now prohibit the sale of sea turtle products. Recent lobbying in California to obtain an exemption for Grand Cayman's products resulted in failure. The progressive legislation enacted by these two states is an example we must all follow if the world's ocean going turtles are not to be reduced below a level necessary for viability.

The U. S. Department of the Interior is also presently directing efforts at slowing the decline. Of the five major types of sea turtles which exist, three are officially listed as endangered species (all commerce being prohibited) and two (one of which is the Green Turtle now in your market) are under consideration for inclusion to the list. A decision will be made in the next few months and I feel confident that, based on facts as we know them, maximum protection will be forthcoming.

In the meantime, each of us can aid sea turtle survival by refusing to purchase any of the derived products. As a business man, you have the opportunity to play a unique part by not offering these products to your customers. Such action will most definitely receive the conservation-oriented community's support as well as clarify Holiday Mart's position as a conscientious enterprise that is concerned about its effect on the environment.

I have appreciated the opportunity to discuss this matter with

Mr. Arthur Au
March 22, 1974

Page 3

you and would be most happy to answer any questions that may arise.
Please feel free to contact me at 247-6631.

Sincerely,

George H. Balazs

GHB:md

cc: Mr. W. Reed - Holiday Mart
Dr. W. Gagne - Hawaii Audubon Society
Mr. D. Raney - Sierra Club
Dr. A. Ziegler - Bishop Museum
Dr. F. Radovsky - Bishop Museum
Dr. R. Howle - Food and Drug Administration
Dr. B. Baird - Dept. of Agriculture
Mr. P. Sekora - Bureau of Sport Fisheries and Wildlife, Kailua
Mr. D. Olsen - Bureau of Sport Fisheries and Wildlife, Washington
Dr. F. King - New York Zoological Society
Dr. D. Ehrenfeld - Barnard College, N. Y.
Dr. A. Carr - University of Florida