

HIMB.

BALAZS, G.

1978

OUTGOING CORRESPONDENCE

December 27, 1978

Colonel Peter D. Stearns
Honolulu District Engineer
Army Corps of Engineers
Prince Kuhio Federal Building
Honolulu, Hawaii 96813

Dear Colonel Stearns:

I would appreciate receiving information concerning the beach park construction project proposed for Ninole Cove, Kau District, Island of Hawaii.

Thank you in advance for your assistance in this matter.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

December 27, 1978

Dr. George R. Pisani
Co-editor, HERPETOLOGICAL REVIEW
Division of Biological Sciences
University of Kansas
Lawrence, Kansas 66045

Dear Dr. Pisani:

Enclosed is an unusual photograph of a basking Hawaiian green turtle and monk seal together on the beach at French Frigate Shoals, Northwestern Hawaiian Islands. I would like to have you consider publishing this photograph in HERPETOLOGICAL REVIEW along with the attached caption.

Best regards for the New Year.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk
Enclosures

December 26, 1978

Dr. Wilmot B. Boone
P. O. Box 66
Wake Island 96798

Dear Dr. Boone:

Thank you for your letter of 21 December concerning the recent fish poisoning incident at Wake Island. While I am certainly interested in such occurrences at locations inhabited by turtles, I nevertheless have only a very general knowledge of ciguatera. One of the leading authorities on the subject, Dr. Albert H. Banner, is a staff member here at our institute. I am therefore taking the liberty of passing your letter on to Dr. Banner for possible action on your proposal.

I was pleased to learn that my turtle identification posters are still on display. You didn't mention the sighting report forms, so I have enclosed a number of these which I would appreciate being placed at central locations. At one time I had planned to visit Wake for one or two weeks of surveys. Unfortunately this did not materialize due to commitments in the Hawaiian chain.

Best regards for the New Year.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

cc: Dr. A. H. Banner

December 26, 1978

Ms. Phoebe Wray
Executive Director
The Center for Action on Endangered Species
175 West Main
Ayer, MA 01432

Dear Ms. Wray:

Thank you for your letter of December 13th concerning the subjects of mariculture and my research of Hawaiian green turtles.

As you may be aware, sea turtle mariculture is a highly complex and controversial issue that has attracted considerable international attention in recent years. Based on the biological results and marketing practices that I have seen thus far, I am certainly not in favor of commercial "farms" at the present time. I am assuming that you have no resource material on this subject and, therefore, have enclosed several pertinent articles by Dr. David Ehrenfeld. Dr. Ehrenfeld has closely examined several different aspects of this subject and, perhaps, would be interested in any detailed information you may have gathered on the proposed farming of manatees. Incidentally, the most far-fetched farming scheme that I have come across yet suggested the use of Blue Whales held in coral atolls (see SCIENTIFIC AMERICAN, December 1970).

For your file, I am also sending several articles on Hawaiian green turtles. If you ever have the need for photographic material of turtles, I will do my best to be of assistance.

Sincerely,

George H. Balass
Assistant Marine Biologist

mk

December 21, 1978

LCDR T. C. Kelley
Special Assistant for Ecology
Pacific Division
Naval Facilities Engineering Command
(Makalaea, HI)
Pearl Harbor, Hawaii 96860

Dear LCDR Kelley:

I am interested in learning if any of your personnel have made sightings of sea turtles during the course of visits to Kaula Island. In conjunction with bibliographies I am assembling on each of the Northwestern Hawaiian Islands, I recently had the opportunity to review the available literature on Kaula. There has apparently been only two documentations of turtles occurring in the shallow waters adjacent to this small island. However, this could possibly be due to the fact that visitors have either not specifically looked for turtles or perhaps simply failed to record their presence in writing. Nevertheless, for your information and records, I am sending you a draft copy of the bibliography which resulted from my literature search. Your assistance would be appreciated in calling to my attention any information or written reports relating to turtles that I may have overlooked.

Best regards for the New Year.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Enclosure

UNIVERSITY OF HAWAII AT MANOA
HAWAII INSTITUTE OF MARINE BIOLOGY
P. O. BOX 1346
KANEHOHE, HAWAII 96744

December 18, 1978

Mr. M. R. Chatenay
Scientific & Survey Representative
Brian Bell & Company Pty. Limited
P. O. Box 1228
Soroko, Papua New Guinea

Dear Mr. Chatenay:

Your letter of 3 December 1978 concerning large calipers for turtles has been passed on to me as I am presently conducting a life history study of the Hawaiian green turtle. Earlier in my program I made numerous inquiries to American and overseas companies about the purchase of such a measuring device. None of these resulted in success. I subsequently had several manufactured to order by our support staff here at the Institute. I would therefore recommend that you obtain the services of a machine shop in your own area.

I am sorry that I cannot be of greater assistance in this matter.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

December 18, 1978

Mr. Mel Zahn
Assistant Special Agent in Charge
Alaska Region
National Marine Fisheries Service
P. O. Box 1668
Juneau, Alaska 99802

Dear Mr. Zahn:

The enclosed newspaper article was recently sent to me by a friend living in Ponape. I am presently conducting a life history study of the Hawaiian green turtle and therefore have considerable interest in all aspects of sea turtles. I would like to obtain additional information on the recovery of the leatherback in your area. If available, it would be greatly appreciated if you would send me copies of any written reports on this case, or any recent newspaper articles that may have appeared. Was an analysis conducted of the turtle's stomach contents?

Thank you in advance for any assistance that you are able to provide to this request.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GH3:md

Enclosures

December 18, 1978

Mr. Jerry Cegelske
Enforcement Division
U. S. Fish and Wildlife Service
P. O. Box 3202
Ketchikan, Alaska 99901

Dear Mr. Cegelske:

The enclosed newspaper article was recently sent to me by a friend living in Ponspe. I am presently conducting a life history study of the Hawaiian green turtle and therefore have considerable interest in all aspects of sea turtles. I would like to obtain additional information on the recovery of the leatherback in your area. If available, it would be greatly appreciated if you would send me copies of any written reports on this case, or any recent newspaper articles that may have appeared. Was an analysis conducted of the turtle's stomach contents?

Thank you in advance for any assistance that you are able to provide to this request.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GRB:md

Enclosures

December 18, 1978

Dr. Elliott Jacobson
Department of Zoology
University of Florida
Gainesville, Florida 32601

Dear Dr. Elliott:

I would greatly appreciate receiving
abstracts of the following papers which you
presented at the SSAR 21st Annual Meeting.

1. Viral diseases of reptiles
2. Mycotic diseases of reptiles
3. Neoplastic diseases of reptiles

Sincerely,

George H. Balazs
Asst. Marine Biologist

GH3:md

December 18, 1978

Mr. Bobby Amaral
P. O. Box 26
Lanai City, Hawaii 96763

Dear Bobby:

I want to take this opportunity to thank you for giving the large turtle stomach and intestines to Lanai game wardens, Pete Connally and Albert Morita. This material was recently sent to my laboratory for analysis of the dietary components. In addition to finding several different kinds of limu, it was very interesting to note the presence of numerous bunched-up plastic bags throughout the digestive tract. Apparently the turtle ate these items at the surface thinking they were jellyfish or other edible marine animals.

It would be very helpful if you would provide me with some further details on this turtle.

1. Where was the turtle captured? A chart has been enclosed for marking and return.
2. What was the turtle doing when first seen (sleeping, feeding, etc.)?
3. Did the turtle appear healthy and strong?
4. Were any abnormalities present (tumors, injured, missing limbs, etc.)?
5. Were any tags present?
6. Did you take any pictures of the turtle?

Any information that you can provide on these matters will be greatly appreciated.

Best regards for the holidays to you and the family.

Sincerely,

George H. Balazs
Assistant Marine Biologist

December 18, 1978

Dr. Robert D. Ohmart
Colorado State University
Fort Collins, Colorado 80521

Dear Dr. Ohmart:

I would greatly appreciate receiving an abstract of your presentation to the SSAR 21st Annual Meeting entitled "A physiological model to control cyclic reproductive events in the green sea turtle."

Sincerely,

George H. Balazs
Assistant Marine Biologist

nk

December 18, 1978

Dr. William C. Kleese
University of Arizona
Tucson, Arizona 85700

Dear Dr. Kleese:

I would greatly appreciate receiving an abstract of your presentation to the SSAR 21st Annual Meeting entitled "Environmental effects upon herpesvirus infections in sea turtles."

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

December 13, 1978

Ms. Karen Bjorndal
Department of Zoology
223 Bartram Hall
University of Florida
Gainesville, Florida 32611

Dear Karen:

Thank you for your letter of 4 December which helped to clarify my earlier questions about copulation/fertilization. This is very much appreciated.

I was surprised to learn that you will be leaving the country for an extended period in April. Hopefully this is in relation to your work with turtles. Please keep me informed as to your current mailing address.

Best regards for the New Year.

Sincerely,

GEORGE H. BALAZS
Associate Marine Biologist

GHB:ec

December 13, 1978

Mr. Mike A. McCoy
District Fisheries Officer
Trust Territory of the Pacific Islands
Marine Resources Division
P. O. Box B, Kolonia
Ponape, Eastern Caroline Islands 96941

Dear Mike:

Many thanks for the very interesting newspaper article concerning the Alaskan leatherback episode. This is certainly appreciated, as I was not previously aware of the case. I will make an attempt to obtain more detailed information, which I will pass back to you.

Last month I was visited by a Phillip Light who expressed interest in establishing a head-starting/tagging turtle project in Yap. He provided me with a research proposal almost identical to the one that you prepared a few years ago. I wonder if you are aware of this and, if so, if you support his efforts. Your views on such matters should be given considerable attention.

Were any recoveries ever made of the hatchlings which you matched?

Best regards for the New Year.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

December 12, 1978

Dr. Joseph R. Sylvester
SE Turtle Program Manager
National Marine Fisheries Service
Duval Building
9450 Koger Blvd.
St. Petersburg, Florida 33702

Dear Joe::

Thank you for your recent note and the memorandum from Larry Ogren dated 7 December 1978 concerning my earlier inquiry about the positioning of turtles for resuscitation. It would certainly appear that a need exists for some basic research on this important management question. As I may have mentioned to you, Dr. G. Causey Whittow (U. H. Physiology Dept.) and I are currently conducting investigations of the thermal ecology of land basking Hawaiian green turtles. This work encompasses the collection of data on respiration frequencies and other parameter for prone turtles in a natural setting. In addition, we have access to 30 captive green turtles of various sizes for related laboratory and controlled environment studies. Considering our existing involvement in this area (particularly Dr. Whittow's widely recognized expertise in physiological matters), we are wondering if the Southeast Region would be interested in receiving a small proposal for research to help answer the resuscitation question. We estimate that approximately \$5-6,000 would be required for such an undertaking. This would seem to be an appropriate way in which we can be of assistance to one of the problems confronting turtles in the Southeast Region and other areas where heavy trawling takes place.

We look forward to receiving word of what interest you and your colleagues may have in such a research proposal.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

cc: L. Ogren
R. Roe
R. Shomura

December 11, 1978

Mr. Bill Puleloa
Fisheries Officer
Trust Territory of the Pacific Islands
Marine Resources Division
Majuro, Marshall Islands 96960

Dear Mr. Puleloa:

Dr. Alison Kay has sent me a copy of your letter to her dated 14 September 1978 concerning your trip to the Northern Marshalls. As a researcher of Hawaiian sea turtles, I was especially interested in your mention of watching nesting turtles at Bikar and Taongi. You are indeed fortunate to have seen these two remote atolls. I wonder if you would be able to provide me with any additional information on the turtles that were observed, either nesting or present in the inshore waters? It would be important to know approximately how many turtles per night were ashore, and the extent to which nesting excavations covered the available beaches. Were tags noted on any of the turtles? Presumably all of the turtles seen nesting were the green turtles, Chelonia mydas. I would also be interested to learn if you saw evidence of illegal taking of turtles, particularly by foreign fishing vessels.

I have enclosed two of my publications dealing with sea turtles which hopefully you will find interesting. Please feel free to contact me if there is any way I can be of assistance.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk
Enclosures

November 17, 1978

Ms. Jeanne A. Mortimer
Department of Zoology
223 Bartram Hall
University of Florida
Gainesville, Florida 32611

Dear Jeanne:

Thank you very much for the copy of your excellent letter to Peter Scott concerning the potentially serious Ascension situation. This is certainly the kind of action that needs to be taken by each one of us when we become aware of such problems. If there is anything that you feel I can do to be of assistance in this matter, please contact me.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

November 17, 1978

To: Dr. John Craven
Mr. Howard Pennington
Office of the Marine Affairs Coordinator

From: George H. Balazs
Assistant Marine Biologist

Subject: REVIEW OF THE NMFS DISCUSSION PAPER DEALING WITH
PROPOSALS TO DESIGNATE CRITICAL HABITAT FOR THE HAWAIIAN
MONK SEAL

As requested during the meeting of 2 November 1978, I have reviewed the NMFS Discussion Paper which was recently made available through your office. In your forthcoming letter to the NMFS which will delineate the State's position on this matter, I would like you to consider the following comments and points:

1. The food and feeding habits of the monk seal are undoubtedly the two most important factors in determining what portion of the marine habitat in the Leeward Islands is "critical" to animal's healthy existence. Unfortunately, there is presently a serious lack of suitable information on these subjects. Properly designed experiments therefore need to be integrated into the ongoing research program in order to establish the necessary data base. To my knowledge, there are no such plans at the present time.
2. The maximum depth regularly frequented by monk seals in search of food is a key component in the Discussion Paper. Although sonic and other types of telemetry work could eventually yield valuable information on the subject, in the research program of green turtles conducted in collaboration with Dr. Causey Whittow we are proceeding along a less complex line of methodology. Pending federal approval under the Endangered Species Act, we intend to attach small, inexpensive depth gauges (commonly used by Scuba divers) to nesting and/or basking turtles. These gauges are equipped with a stop mechanism that can record the maximum depth obtained. These measurements can therefore be easily read when the turtle returns to shore. Both green turtles, as well as monk seals, are known to regularly come ashore at the same general location in the Leeward Islands. I see no reason why this technique could not also be adapted for use on seals.

Memo: Dr. John Craven
Mr. Howard Pennington

Page Two
November 17, 1978

3. The Discussion Paper has a serious deficiency in that the areas of Nihoa, Gardner Pinnacles and Maro Reef are not included, indeed barely mentioned, with respect to monk seal life history and potential areas of critical habitat. At Nihoa and Gardner Pinnacles, monk seals habitually haul out on land, therefore certainly must feed to some extent in the surrounding inshore and/or offshore waters. Monk seals are also regularly seen at Maro Reef, but to a lesser extent.

4. A key reference used in the Discussion Paper is the report by Sergeant et al. presented at the May 1978 Mediterranean monk seal conference. In a check with colleagues, I have been unable to locate a copy of this paper in Hawaii. In view of its importance to the discussion, a copy should have been made available for evaluation. For instance, the paper is supposed to describe the case of a monk seal being caught on a baited hook at 75 meters. However, without reading the paper, I am not able to determine if sufficient evidence was given to show that the seal was not hooked at a shallower depth as the line was being pulled in.

I appreciate having the opportunity to comment on these important matters. If there are any additional questions, please contact me by telephone at 247-6631.

mk

November 16, 1978

Ms. Jenny Williams
Chelonia Institute
P. O. Box 9174
Arlington, Virginia 22209

Dear Ms. Williams:

I want to offer my sincere apologies for not answering your letter of 25 July concerning possible photographs for use in your organization's stationery letterhead. I fully intended to give you a timely response. Unfortunately, I departed for several weeks of field work in our remote northwestern islands shortly after your letter arrived. During my absence, the letter was inadvertently placed in a "completed" file and, therefore, did not come to my attention upon return. Only yesterday it was uncovered while reviewing some past correspondence.

Probably by this time you have found a suitable photograph or drawing for your stationery. If not, please let me know and I will try to fulfill your needs. Most of my photography of Chelonia is of nesting and basking behavior.

Again, I am very sorry.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

December 12, 1978

Dr. Itaru Uchida, Director
Himeji City Aquarium
Nobusue, Tegarayama
670, Himeji City
JAPAN

Dear Itaru:

Thank you for your letter of 30 November 1978. I am very sorry but I have not been in contact with the National Band and Tag Company in Kentucky for some time now. In my last correspondence with Mr. Haas, it was indicated that they would not be able to manufacture any more Inconel turtle tags unless they had an extremely large order, perhaps 20,000 tags or more. By copy of this letter, I will ask Mr. Haas if this situation has changed and smaller orders may now be possible. As I mentioned earlier, absolutely no corrosion has thus far been detected on my Inconel size 681 tags.

Concerning the statistics for tortoise shell imported into Japan for 1977, I do not understand why there are no data for the months of June through December. This is very important information, therefore I hope you will be able to locate it.

I hope to be in Trengganu for the 1979 meeting, if indeed all of the arrangements for this gathering are finalized. It will be good to see you at that time.

Best regards and good fortune for the New Year.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

cc: Mr. Haas

Dr. Dennis J. Russell
Page Two
December 8, 1978

Dennis, I do hope you will write up the Codign findings. It certainly shouldn't take you very long. Send a draft to me and I will include all details of collection.

Best regards for the Holidays.

Sincerely,
December 8, 1978

George H. Salas
Assistant Marine Biologist

Dr. Dennis J. Russell
Miller Science Learning Center
Seattle Pacific University
Seattle, Washington 98119

Dear Dennis:

Many thanks for your good letter of 28 November 1978. I was pleased to learn that all is going for you, and that you are willing to undertake further algae identification for me. Under separate cover in a well-wrapped package, I am sending you 30 vials and one dried specimen. These are numbered GB-301-GB331 and GB-143. Several of the samples consist of reef flat collections and skin/shell scrapping. I have indicated these general collection categories on the appropriate labels. Where feasible, I would like to again receive a rough percentage breakdown for all samples, except those of reef flat origin.

Sample GB-143 may look familiar to you due to the fact that it was in one of the earlier groups. You had listed this solely as "strap-like fibrous material (animal ?)". Is this correct, or was there perhaps a typing deletion in the I. D. sheet you forwarded to me?

I have filed a purchase order with RCUH for \$60.00 plus \$10.00 for return postage. Postage may not be that much, however any left over funds should be retained by you as additional payment for the fine work you always do.

Dr. Dennis J. Russell
Page Two
December 6, 1978

Dennis, I do hope you will write up the Codium findings. It certainly shouldn't take you very long. Send a draft to me and I will include all details of collection.

Best regards for the Holidays.

December 5, 1978

Sincerely,

Dr. Dennis J. Russell
Miller Science Learning Center
Seattle Pacific University
Seattle, Washington 98118

George H. Balazs
Assistant Marine Biologist

mk
Dear Dennis:

Many thanks for your good letter of 25 November 1978. I was pleased to learn that all is going for you, and that you are willing to undertake further identification for me. Under separate cover in a well-packed package, I am sending you 30 vials and one dried specimen. These are numbered GB-301-GB331 and GB-143. Several of the samples consist of reef flat collections and skin scrapings. I have indicated these general collection categories on the appropriate labels. Where feasible, I would like to again receive a rough percentage breakdown for all samples, except those of reef flat origin.

Sample GB-143 may look familiar to you due to the fact that it was in one of the earlier groups. You had listed this solely as "strap-like fibrous material (animal ?)". Is this correct, or was there perhaps a typing deletion in the I. D. sheet you forwarded to me?

I have filed a purchase order with BCUH for \$60.00 plus \$10.00 for return postage. Postage may not be that much, however any left over funds should be retained by you as additional payment for the fine work you always do.

December 6, 1978

Dr. Clayton E. Ray
Research Curator
Department of Paleobiology
National Museum of Natural History
Smithsonian Institution
Washington, D. C. 20560

Dear Dr. Ray:

Many thanks for your interesting and informative letter of 27 November 1978. As suggested, I have written to Diana Thatcher requesting a copy of her thesis on fossil sea turtles.

The reprints relating to monk seals which you forwarded were also very much appreciated. We are sorry to have missed these in our bibliography, however, they will certainly be included in a supplemental up-date planned for later next year. Causey Whittow and I have two short articles on monk seals which will be published shortly in our local Audubon Society journal ('ELEPAIO). I will be sure to send you copies when they are out. Also, I have asked Causey to send you a reprint of his recently published article in PACIFIC SCIENCE on thermoregulation in the monk seal.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GEB:ec

December 5, 1978

Dr. Linda Jones
Special Assistant to the
Scientific Program Director
Marine Mammal Commission
1625 Eye Street, N. W.
Washington, D. C. 20006

Dear Dr. Jones:

Thank you for your letter of 1 December and the Taylor-Naftel shark report. As requested, I am sending you a copy of the Balazs-Whittow article on the tiger shark observed feeding on a monk seal. This is a prepublication copy, therefore we would appreciate it if you would not make additional copies for distribution at the present time. The article has been submitted to 'Elepaio, Journal of the Hawaii Audubon Society for publication.

I wonder if Dr. Twiss ever received my letter of 11 September 1978?

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

December 5, 1978

Ms. Diana Thatcher
Department of Zoology
San Diego State University
San Diego, California 92182

Dear Ms. Thatcher:

Dr. Clayton Ray of the Smithsonian Institution has informed me that you have recently completed a thesis on fossil sea turtles of the Miocene of California. I would be interested in obtaining a copy of this thesis or any publications which may have resulted. If necessary, I can reimburse you for any duplicating cost that may be involved.

Thank you in advance for your consideration of this request.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

November 29, 1978

TO: Robert H. Prahler
Assoc. Director, Personnel

FROM: George H. Balazs
Assistant Marine Biologist

This is to request your permission for the expenditure of \$798.00 in salary (Sea Grant 21-F-79-238-F-582-B-267) through purchase order to my RCUH Sea Grant account 1984. The funds would be used to pay my employee, Alan K. H. Kam, who is presently an employee under RCUH 1984.

Dr. Davidson has granted approval for this transfer of funds.

GHB:ec

November 27, 1978

TO: Karen Tanoue
Sea Grant Publications Office

FROM: George H. Balass
Assistant Marine Biologist

As requested in your note of 22 November, I am forwarding copies of reports and publications which you designated on the list of references. All of these items were submitted at various times to Dr. Davidson's office as part of my continuing effort to keep the Sea Grant office fully up to date on my research program.

Your request for 25 copies of each item will not be possible in that there is no budgeting in my Sea Grant project for reproduction costs. Perhaps you can have them copied under your own funding provisions.

GHB:ec

Enclosures

November 27, 1978

Mr. Richard B. Roe, Acting Director
Office of Marine Mammals and Endangered Species
National Marine Fisheries Service
Washington, D. C. - 20235

Dear Dick:

I acknowledge with many thanks your letter of October 2, 1978 concerning the recent listing of sea turtles, the problems relating to Cayman Turtle Farm, and the question of subsistence turtle fishing in Hawaii.

I have not seen a copy of the official comments submitted by the State of Hawaii on the listing, if indeed such comments were ever formalized and communicated to your office. On August 21, 1978 an informal meeting was held in Honolulu concerning this subject. Certain State officials in attendance voiced strong opposition to the Threatened listing for Hawaiian Chelonia. The principal reason for taking this position seemed to be a matter of pre-emption of State's rights by the federal government. The biology and conservation status of the turtle appeared to be a secondary consideration.

I have been troubled for some time now over the issue of subsistence turtle fishing in Hawaii. I interpret "subsistence" to be "the use of endangered or threatened wildlife for food, clothing, shelter, heating, transportation and other uses necessary (my emphasis) to maintain the life of the taker of the wildlife, or those who depend upon the taker to provide them with such subsistence" (FEDERAL REGISTER, 44416, 26 September 1975). There is reason to believe that several of Hawaii's residents (not necessarily all native Hawaiians) utilize green turtles in a true subsistence manner. The problem of any legal exception, however, would, of course, be the enforcement officers' and courts' ability to distinguish true subsistence from food preferences, sport and trophy hunting. In my opinion, there would be no practical solution to the problem. The question is then: do we make several of Hawaii's residents law-breakers in the eyes of the federal government, or do we make a legal exception for subsistence that in practice destroys the law's effectiveness? I do not know the answer. However, I do know that enforcement is the key to any law relating to turtle protection. It is my understanding that our Division of Fish and Game may not enforce the federal regulations now in effect. Furthermore, there are presently only two NMFS enforcement officers in Hawaii, both of which are based in Honolulu.

Mr. Richard B. Roe
Acting Director

November 27, 1978
Page -2-

I appreciate your kind words of acknowledgement concerning my involvement in the NSTL, Mississippi meeting. Since six months have now passed, I am, of course, wondering what results may have been achieved with respect to sea turtle research, management and recovery in the Pacific. Has any action been taken to incorporate the 14 areas under U.S. jurisdiction in the Pacific into the NMFS national turtle program? Have sea turtle funds now been budgeted for the NMFS Southwest Region? These are important questions to my own efforts in planning a Hawaiian sea turtle research program with a stable funding base and some degree of continuity.

Under separate cover I am sending you a recently published article on Hawaiian wildlife which you may find interesting. I look forward to hearing from you when your busy schedule permits.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

November 27, 1978

National Sea Grant Depository
Pell Library Building
URI Narragansett Bay Campus
Narragansett, Rhode Island 02882

Dear Sirs:

I would like to request a literature search of your collection for the following subjects:

105 Physiology
Thermoregulation

127 Vertebrate
Turtle

138 Tagging
Branding
Laser Marking
Marking

201 Disease
Tumors

Thank you for your assistance in this matter.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 27, 1978

Mr. Richard Parsons, Chief
Federal Wildlife Permit Office
U. S. Fish and Wildlife Service
Washington, D. C. 20240

Dear Mr. Parsons:

In accordance with Subpart E of the 28 July 1978 Federal Register Listing of the green turtle (Chelonia mydas) as a threatened species, I am submitting the enclosed application for a permit to conduct scientific research of this species in the Hawaiian Archipelago. My ongoing research program encompasses life history aspects both on land and in the water, therefore it is my understanding that your office will forward a copy of the application to the National Marine Fisheries Service for concurrent evaluation.

Thank you for your assistance in this matter.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 27, 1978

To: Mr. H. A. Hansen
Area Administrator
U. S. Fish and Wildlife Service

From: George H. Balazs
Assistant Marine Biologist

Subject: DRAFT FWS DOCUMENT CONCERNING TERRESTRIAL CRITICAL HABITAT
FOR SEA TURTLES IN THE PACIFIC

It is my understanding that a document relating to proposed terrestrial critical habitat for sea turtles is currently being circulated within your agency for review and comment. As the principal researcher of sea turtles in Hawaii, I would greatly appreciate receiving a copy of this document for information purposes. You may recall that I prepared an overview paper on this same subject several months ago (copy enclosed).

Thank you in advance for your assistance with this request.

mk

November 22, 1978

Dr. Stewart Springer
440 Coral Creek Drive
Placida, Florida 33946

Dear Dr. Springer:

Thank you for your note of 15 November. The reprint which I requested:

Springer Stewart. The Ecology of the Top Predators of the Littoral Zone. Abstract of a paper given at "Sharks and Man - A Perspective." Sea Grant Conference, Orlando, Florida, November 28, 1975,

is listed as reference number 216 in the book:

Ellis, Richard (1976) The Book of Sharks. Grosset & Dunlap, N. Y. 320 pp (\$25.00)

Perhaps Richard Ellis made notes during your talk and listed this as the reference.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 23, 1978

Mr. Dennis Cornejo
Box 73
Cheney, Washington 99004

Dear Mr. Cornejo:

In response to your recent request for information on turtles at French Frigate Shoals, I am sending you a reprint of my 1976 paper from Biological Conservation.

In your letter to the Refuge Manager, you mentioned "study RMS #9." Would you please inform me of your source for this listing.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 22, 1978

Mr. Dave L. Olsen
9417 Athens Road
Fairfax, Virginia 22040

Dear Dave:

The grapevine has informed me that you were in Hawaii during recent months. If this was in fact the case, I would certainly have enjoyed visiting with you to talk "sea turtles." A lot of interesting and important results have been obtained since you first introduced me to the turtles of French Frigate Shoals in June of 1973. However, along with this there have been and continue to be problems of stable funding and logistics. Nevertheless, the research goes on as best possible, at least for the next year or so.

My main purpose in writing to you at this time is to hopefully obtain some information on an incident that I vaguely recall you and one of the Coast Guard's fellows mentioning. This involved the case of a monk seal caught on a baited hook at French Frigate Shoals. If my memory is correct, you indicated that the seal survived after the hook was cut off. I think this is a significant incident that should be properly recorded. The important points are:

1. month and year
2. location (Tern Island?)
3. approximate size of hook
4. type of bait on hook (fresh?) and depth set
5. size and sex of seal
6. damage inflicted/future outlook of the animal's survival, I.D. number of tag put on seal

Ideally this should be written up for a short publication, perhaps in our local "Elepaio, Hawaii Audubon Society Journal. Even if you would rather not enter into this, I would still like to have whatever details you recall for use, as the circumstances may warrant.

Mr. Dave L. Olsen
November 22, 1978
Page 2

Looking forward to hearing from you when your time permits. The 1989 Dillingham Tide Calendar will feature my seabird photography, so I'll send you a copy when it's out.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

November 22, 1978

U. S. Fish and Wildlife Service (OBS)
Lloyd 500 Building, Suite 1692
500 N.E. Multnomah Street
Portland, OR 97232

Dear Sir:

I would greatly appreciate receiving
access information on the "FWS Information
System on Pacific Islands."

Sincerely,

George H. Balazs
Assistant Marine Biologist

BHB:MD

November 22, 1978

Mr. Doyle Gates
Area Administrator
Western Pacific Program Office
National Marine Fisheries Service
P. O. Box 3830
Honolulu, Hawaii 96812

Dear Doyle:

For your information, I am forwarding you a letter authored by Dr. Peter Sand, Secretary General of IUCN, which refers in part to the taking of sea turtles by Japanese tuna vessels in the Maldives. As you are probably aware, a considerable market exists in Japan for whole, stuffed sea turtles. Given the opportunity, I think it is entirely possible that such poaching by foreign fishing vessels could also take place in our Hawaiian leeward and other U. S. Pacific Islands. I know that you have given thought to this potential threat, nevertheless, I want to make you aware that the problem is very real in some areas.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Enclosure

November 22, 1978

Dr. Linda Jones
U. S. Marine Mammal Commission
1625 Eye Street, N.W.
Washington, D. C. 20006

Dear Dr. Jones:

I would greatly appreciate receiving a copy of the recently issued report authored by Taylor and Naftel entitled "Preliminary investigations of shark predation on the Hawaiian monk seal at Pearl and Hermes Reef and French Frigate Shoals."

Sincerely,

G. H. Balazs
Asst. Marine Biologist

GHB:md

November 22, 1978

Mr. Mark J. Rauzon
National Fish and Wildlife Laboratory
Anchorage Field Station
4454 Business Park Blvd.
Anchorage, Alaska 99503

Dear Mark:

Thank you for your recent letter of inquiry about the eagle sightings. In collaboration with C. J. Ralph, an article based on these data will be published shortly in our local Audubon Society newsletter. I will send you a copy when it is out.

Sincerely,

George H. Balans
Asst. Marine Biologist

CHB:md

November 22, 1978

Ms. Margery Oldfield
Principal Investigator
Project on Use and Conservation
of Genetic Resources
Texas System of Natural Laboratories Inc.
305 Littlefield Blvd.
Austin, Texas 78701

Dear Ms. Oldfield:

Thank you for your letter of inquiry dated 16 November 1978. The Japanese Tortoise Shell Association which we translated is the only publication which I have that may be useful to your research. The cost of reproducing this paper is \$8.00. I will be glad to send it to you should you so desire.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 21, 1978

Captain Jiron:
22TASS/IN
Wheeler Air Force Base
Hawaii 96515

Dear Captain Jiron:

Several weeks have now passed since I last talked to you on the telephone, so I thought I would send a short "reminder" letter concerning the article from the base newspaper that you had promised to send me. Undoubtedly a demanding schedule resulting from Harry's departure has kept you well occupied with Air Force duties. Nevertheless, when your time permits, I hope you will send it over for inclusion in my annual written report to the State government.

After the first of the year I hope you will have me out to your facility to give the men a short slide presentation on turtle spotting.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 21, 1978

Dr. Joseph Sylvester
Turtle Program Manager
National Marine Fisheries Service
Duval Building
9450 Koger Blvd.
St. Petersburg, Florida 33702

Dear Joe:

In recent weeks, Dr. Causey Whittow (UH Physiology Department) and I have been discussing the requirements in the recently enacted sea turtle rules and regulations which state: "...any sea turtle so taken must be handled with due care to prevent injury to live sea turtles and must be returned to the water immediately whether it is dead or alive; if it is alive and unconscious, before returning it to the water, resuscitation must be attempted by turning the turtle on its back and pumping its plastron by hand or foot."

I wonder if you can inform us of the data base that was used for requiring that the turtles to be placed on their backs, rather than on their plastrons during resuscitation efforts? Based in part on recent experiences, we have some reason to believe that resuscitation on the plastron could be the more appropriate position. However, experimentation elsewhere may have been conducted on this aspect which has not yet been brought to our attention. If you are aware of such work, would you please send us the details. Any information on the subject would be greatly appreciated.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

cc: G. C. Whittow
R. Shomura
R. Roe

November 21, 1978

Dr. Dennis Russell
Miller Science Learning Center
Seattle Pacific University
Seattle, Washington 98119

Dear Dennis:

Hopefully all is going well in your new position and you are enjoying life in your new home on the mainland.

Once again a point has been reached where I have an assortment of algae samples that are in need of identification by an acknowledged professional. I hope you will again consent to do this work as paid consultant. Of course, I will have to put the samples in small vials and mail them to you, as my project is not quite at a stage where I can afford to fly you back to Hawaii. As soon as your time permits, would you please write me a brief note indicating if you are agreeable. If so, I will include in your payment sufficient funds to cover the return postage for the samples. As usual there will be no great rush for the results of the identification.

Best regards to you and your family.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

November 21, 1978

Mr. Charlie Knight
300 Richards Avenue
Paxton, Massachusetts 01612

Dear Charlie:

Hopefully by this time you are settled in your new home and all is going well for you. I thought I'd take this opportunity to thank you for the very interesting and dramatic photographs of the shark bite on the young monk seal at French Frigate Shoals. Causey showed them to me the other day and really makes one want to stay out of the water! We were wondering if you personally observed the seal dead at a later date, as we cannot imagine that it survived for long.

As I mentioned to you over the telephone, I will very much appreciate receiving the negatives, on loan, of Carretti and the turtle that was rescued by the fuel tanks.

Again, many thanks for all the help you gave us during our research visits to French Frigate Shoals.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

November 20, 1978

Dr. Douglas Emlong
Division of Paleontology
Smithsonian Institution
Washington, D. C. 20560

Dear Dr. Emlong:

Enclosed is a copy of a Los Angeles newspaper article describing the sea turtle fossil which you found near Bakersfield last year. As a researcher of contemporary sea turtles, I would like to learn more about your interesting discovery. If you have authored publications or reports dealing with fossil sea turtles, I would greatly appreciate receiving copies. Thank you in advance for any assistance that you are able to provide to this request.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Enclosures

November 20, 1978

Mr. Vernon Byrd
U. S. Fish and Wildlife Service
Division of Wildlife Refuges
P. O. Box 87
Kilauea, Hawaii 96754

Dear Vernon:

I have finally been able to obtain a sketch map of Kilauea Point for use in the project we discussed. Hopefully it will serve the purpose. The kinds of data that could be gathered are listed as follows:

1. date, time, stage of tide, general weather/sea surface conditions (presence of foam)
2. length of time spent by observer engaged in seaward observations (by designated stations, if appropriate)
3. locations of turtles sighted (indicated on chart)
4. estimated size (upper shell length)
5. length of time at the surface, number of inhalations, activity at surface (feeding), length of time submerged (if individuals can be distinguished)

The number of observation periods conducted would probably have to be determined by the interest and energies of the person or persons you select for the work. Naturally, the more observations, the more reliable the data become. This sort of project has potential for generating some very useful information on the daily activities of green turtles.

I look forward to hearing from you as the work progresses. Like all research, refinements and modifications in technique will undoubtedly have to be made.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

November 13, 1978

Dr. Llewellyn M. Ehrhart
Florida Technological University
P. O. Box 25000
Orlando, Florida 32816

Dear Dr. Ehrhart:

Several weeks ago I received from your office copies of your reports dealing with research of sea turtles. This material was very much appreciated.

Unfortunately, a letter that was enclosed from one of your lady assistants (name unknown) has become misplaced, therefore making it impossible for me to respond to her questions. Would you please ask this person to write briefly to me again so I might do her the courtesy of answering the correspondence.

Thank you very much for your assistance in this matter.

Sincerely,

George H. Balazs
Assistant Marine Biology

mk

November 13, 1978

Dr. George A. Young
Naval Ordnance Laboratory
White Oak
Silver Spring, Maryland 20900

Dear Dr. Young:

I would greatly appreciate receiving reprints of any reports or publications you may have authored dealing with the effects of underwater explosions on marine mammals or turtles. Thank you in advance for whatever assistance you are able to provide to this request.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 13, 1978

LCDR T. C. Kelley
Special Assistant for Ecology
Department of the Navy
Pacific Division
Naval Facilities Engineering
Command (Makalapa)
Pearl Harbor, Hawaii 96860

Dear LCDR Kelley:

Enclosed is a copy of the report which resulted from my field studies of sea turtles at Kahoolawe. Please feel free to contact me by telephone (247-6631) in the event that any points need additional clarification.

I would greatly appreciate a short letter from your office acknowledging receipt of the report for inclusion in my files.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

November 3, 1978

Dr. Yoshihiko Sinoto
Bernice P. Bishop Museum
P. O. Box 6037
Honolulu, Hawaii 96818

Dear Dr. Sinoto:

I would greatly appreciate receiving a reprint of any publication or report that resulted from your archaeological excavations at Nualolo Kai on the Island of Kauai.

Thank you very much for your assistance in this matter.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 3, 1978

Dr. Stewart Springer
Research Associate
Mote Marine Laboratory
Sarasota, Florida 33577

Dear Dr. Springer:

I would greatly appreciate receiving a reprint of your paper (or abstract) entitled "The ecology of the top predators of the littoral zone," which was presented at the Sea Grant Conference in Orlando in November 1975.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

November 1, 1978

Lt. Commander C. C. Gage
Commanding Officer
Explosive Ordnance Disposal
Mobil Unit 1
Barber's Point, Hawaii 96862

Dear Lt. Commander Gage:

This is a follow-up to my telephone call of 23 October requesting a copy of the section of your recent report which mentions sea turtles and other marine life observed at Kahoolawe. I would like to reference this section in the report I am now preparing for the Navy on the sea turtles of Kahoolawe. Also, may I ask you to indicate on the enclosed chart the areas of coastline that were surveyed by your men in September.

Thank you very much for your continuing assistance. The 13 turtle sighting report forms that I received from your unit have proved to be extremely valuable.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

October 27, 1978

Mr. Steven F. Dice
Chief, Environmental Resources Section
Department of the Army
Seattle District, Corps of Engineers
P. O. Box C-3755
Seattle, Washington 98124

Dear Mr. Dice:

Thank you for your letter of 20 October 1978 requesting information for use in a recommendation of critical habitat for the Pacific leatherback. As you may be aware, the leatherback is the least understood of the sea turtle species, therefore I may not be able to provide you with the required data. Nevertheless, before I can make such a determination I will have to know what geographical areas (terrestrial and marine) are under the jurisdiction of your Seattle District. I will be glad to help you to whatever extent possible when I am informed of this information.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

October 30, 1978

Dr. John R. Twiss, Jr.
Executive Director
Marine Mammal Commission
1625 I Street, N.W.
Washington, D. C. 20006

Dear Dr. Twiss:

I would greatly appreciate receiving a copy of the report recently issued by the Commission entitled "The Hawaiian Monk Seal on Laysan Island: 1977" (by Johnson and Johnson).

Thank you in advance for your assistance in this matter.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

October 30, 1978

Dr. Joseph R. Sylvester
SE Turtle Program Manager
National Marine Fisheries Service
Duval Building
9450 Koger Boulevard
St. Petersburg, Florida 33702

Dear Joe:

In response to Regional Director Stevenson's letter of 20 October 1978, please be advised that I enthusiastically accept the offer to serve as an official consultant for the NMFS Southeast Region Sea Turtle Recovery Team. However, in order to serve efficiently, it would almost be essential that travel and per diem costs be provided in that there are no funds available to me for such purposes at the present time. You may want to discuss this point further with Director Stevenson before formally adding my name to the list. Also, at your earliest convenience, I would gratefully appreciate receiving a list of the persons who have been appointed as full members of your recovery team.

I was sorry to have missed you during your recent visit to Honolulu. I understand that your talk with Richard was productive.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist
and Member, IUCN Turtle Group

GHB:ec

cc: Richard Showura
William H. Stevenson

October 24, 1978

Dr. Sylvia A. Braddon
Research Chemist
National Marine Fisheries Service
Southeast Fisheries Center
Charleston Laboratory
P. O. Box 12607
Charleston, South Carolina 29412

Dear Dr. Braddon:

Thank you for your informative letter of 19 October 1978 concerning your need for samples of fresh sea turtle meat. At the present time I have a whole frozen 15 kg Chelonia at my facility. I would certainly be agreeable to supplying you with a sample from this specimen at my earliest opportunity. As additional information, however, I will need to know:

1. Your preferred location for sampling the muscle tissue, i.e., pelvic or pectoral region; and
2. The approximate size of the sample required.

I look forward to hearing from you in the near future.

Sincerely,

George H. Balazs
Assistant Marine Biologist
and Member IUCN Marine
Turtle Group

mk

October 24, 1978

Dr. Itaru Uchida, Director
Himeji City Aquarium
Nobusue, Tegarayama
Himeji City 670, Japan

Dear Itaru:

Thank you very much for your good letter of October 14, 1978. The information on tortoiseshell imports, covering 1977 and 1978 was greatly appreciated.

The company that manufactured my Inconel 625 alloy tags in size 681 (approximately 3.5 grams each) is:

National Band and Tag Company
721 York Street
Newport, Kentucky, U.S.A. 41072

I do not know if they will produce any additional orders in Inconel at this time. However, the tag is regularly made in Monel alloy, which you may find suitable for your rearing experiments.

Hopefully your research and aquarium working are going well. I send my best regards to you and your family.

Sincerely,

George H. Balazs
Asst. Marine Biologist

mk
Enclosures

October 23, 1978

Dr. Milton Friend, Director
National Fish and Wildlife Health Laboratory
1655 Linden Drive
Madison, Wisconsin 53706

Dear Dr. Friend:

As requested in your letter of 27 April 1978, I would like to inform you of a viral pox lesion which I observed earlier this month on a fledgling Red-tailed Tropic bird at Sand Island, Midway. I do not know if this is of any great importance, however, I felt it best be reported for your records. During several field trips to other Leeward Islands in recent months I have not seen any sign of these lesions.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

cc: J. Brent Gixentanner, Refuge Manager
C. Harrison, Seabird Biologist

October 23, 1978

Dr. Burney LeBoeuf
Professor of Biology
Center for Coastal Marine Studies
Division of Natural Sciences
Applied Sciences Building
University of California
Santa Cruz, California 95064

Dear Dr. LeBoeuf:

I wonder if you would be kind enough to send me an assortment of your publications dealing with elephant seals. This would be very helpful in my long overdue preparation of a note on the elephant seal occurrences at Midway.

Several months ago, I was fortunate enough to have interviewed a competent and respected Navy man stationed at Midway who observed an adult male elephant seal while driving. The man was so positive of his sighting that I think this would also be a worthwhile addition to the note.

Hopefully your work is going well. I enjoyed the article that appeared in the June-July issue of National Wildlife.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

October 23, 1978

Mr. William Coops
RCUH
Varsity Building

Dear Bill:

I want to take this opportunity to offer my personal thanks for the excellent leadership that you provided to our Institute while serving for many months as interim director. The efficient but relaxed atmosphere that you created was in my opinion certainly conducive to carrying out our various research programs. It is of considerable credit to your administrative abilities to have successfully accomplished this job while working on a part-time basis.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

cc: Dean Howard P. McKaughan

October 11, 1978

TO: Gilbert K. Oshima
Comptroller, RCUH

FROM: George H. Balazs
Assistant Marine Biologist

This is to request your assistance in the following matters:

- 1) Please transfer the payment of salary for my employee, Alan K. H. Kan, from RCUH Project 4029 to the newly established RCUH 1984;
- 2) Please increase Alan's salary from the present \$3.50 per hour to \$4.00 per hour. This is justified in view of the increased quality of his work over the past year;
- 3) Please continue to have 50% of my salary derived from project 4053 and 50% from project 1984.

GHB:ec

October 10, 1978

Ms. Mary Helfrich
c/o 101 Waikaha
Hilo, Hawaii 96720

Dear Ms. Helfrich:

Just a brief note to thank you for the turtle sighting report form that you recently sent me. I am interested in turtles of the Puako area, but unfortunately have only limited information at the present time. Any further sightings that you or your friends can supply during the coming months would therefore be greatly appreciated.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

October 10, 1978

TO: Mr. J. Brent Giesentanner
Refuge Manager

FROM: George H. Balazs
Assistant Marine Biologist

SUBJECT: Overview of green turtle research in the Hawaiian Islands National
Wildlife Refuge, 23 September - 7 October 1978.

On 23 September 1978 I departed from Honolulu aboard the R/V Easy Rider to conduct field investigations of basking and foraging green turtles at Lisianski Island. On 27 September we arrived at Maro Reef where four days were spent in adjacent waters sampling sharks and carangids as a part of studies being conducted by Dr. Leighton Taylor. On the afternoon of 30 September, I had the opportunity to conduct a brief underwater survey with SCUBA at the northwest end of the reef near the only emergent land. Although no turtles were sighted, it was possible to make an algal collection which will provide further insight into potential food sources available for turtles at this location.

On 1 October we arrived at Laysan. While the campsite of Brian and Patricia Johnson was being disassembled, I surveyed the outer perimeter of the island to assess nesting activity that had taken place during this season. Three nests were located in which hatchling emergence had occurred within the previous 5-10 day period. Excavation of these sites suggested a significantly lower production of hatchlings than has been found to occur in nests at French Frigate Shoals. This appears to be partly due to the larger population of ghost crabs present on Laysan.

My work on Lisianski was conducted during the period 2-4 October. Six of the 17 young turtles that had been previously tagged at this location were recaptured. Rates of growth during the interim were found to be similar to those which I reported for French Frigate Shoals and Kure/Midway in the prepublication IUCN Marine Turtle Newsletter article which was supplied to you during our last meeting. Of special interest at Lisianski was the radical change that had occurred in the dominant species of alga of the nearshore feeding pastures. Previously Caularpa racemosa was found to be the most abundant species, as well as the one most heavily utilized by foraging turtles. During this recent visit C. racemosa was greatly reduced, either due to seasonal changes or heavy grazing. Retrieval of stomach contents and observations of feeding behavior indicated that the alga Turbinaria ornata was instead being consumed in large quantities as this plant material drifted in from the outer reef. A total of eight adult basking turtles was observed during the visit; one of these was found to be present ashore during the nighttime hours.

Enroute from Lisianski to Midway, suitable weather conditions and several extra hours of charter time made it possible for me to make a brief visit to Southeast Island at Pearl and Hermes Reef. Two of the 52 nest pits which I observed in July were found to have had hatchling emergence within the previous 5-10 day period. Excavation of these two sites revealed a high level of hatchling production, with no sign of ghost crab disturbance. I estimated that approximately 14 of the 52 pits represented sites where eggs had actually been deposited.

Unfortunately, I must also report that between 4-6 sets of human footprints were clearly visible along the south shore of the island. In addition, several piles of small glass balls were found at different locations. I do not know if other authorized researchers have visited this area in the recent past, however, I am sure you will take the necessary steps to investigate this potentially damaging finding.

GHB:ec

October 10, 1978

Mr. Don Reeser
National Park Service
Hawaii Volcanoes National Park
Hawaii 96718

Dear Don:

I only returned today from a two week trip up the Leeward chain and had the opportunity to read your note and transcripts from the Halape log. This is certainly good information to hear. Hopefully, the sand beach will remain stable during the coming years and continue to be attractive to nesting turtles. No one knows what makes a particular beach desirable, however, certainly a reduced level of disturbance (i.e. bright lights, harassment by people and dogs) should be an important criterion.

Known nestings of hawksbills in other areas along the Puna and Kau coastlines lead me to believe that this is the species active at Halape. It will, however, be valuable to document this point. Also, we should obtain an estimate of just how many animals have been involved this season. A short survey of the number of excavations would provide some insight into this matter. When circumstances again make it possible for me to get down your way, I would like to take advantage of your kind offer to provide assistance in visiting the area for firsthand inspection.

I have enclosed three of my publications dealing with Hawaiian sea turtles which you may find interesting.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosures

October 10, 1978

Dr. Steven L. Cumbaa
Zooarchaeological Identification Center
491 Bank Street
National Museum of Natural Sciences
Ottawa K1A 0M8 Canada

Dear Steve:

It was a pleasant surprise to receive your letter of 23 September. I most certainly do remember meeting you at David and Suong's. Actually, I was in Gainesville on two separate occasions, however I believe that you and your wife and child were away during one of those visits. You did indeed send me xeroxed material on observations of turtles during the 1500's; this was a valuable addition to my library. Hopefully you received the turtle bones that I sent in return.

As requested, I have enclosed a copy of our monk seal bibliography. In addition, I am sending a copy of my commercially produced color booklet on Hawaiian seabirds, turtles and monk seals. Please feel free to call upon me if you need original photographs of monk seals for your forthcoming article.

We have maintained regular correspondence with David and Suong. I am hoping that one day he may have the opportunity for employment in Hawaii.

Let us continue to stay in contact with one another on matters of common interest.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosures

October 10, 1978

Mr. Curt Haney
711 E. Leicester Ave., Apt. B-12
Norfolk, Virginia 23503

Dear Curt:

Many thanks for your letter of 23 September. I was sorry to hear about your dive school problems, but hopefully your new job will provide some challenge and be rewarding.

Your article for Skin Diver sounds real good and I will keep a look-out for it on the magazine stands. Did you collaborate with Gary in the preparation? I only recently got a note from him with his new address in Okinawa. As you know, I wrote to Mac some months ago asking for a brief outline of the founding and history of Koral Kings. Unfortunately, I never got an answer. This was to be part of an article on KK cooperation in green turtle research which the club members encouraged me to prepare for a magazine like Skin Diver. I understand that Mr. Siu was also one of the original members, therefore when time permits I intend to make contact with him. Your Maui News suggestions sounds like a good idea for an interim article. I'm looking forward to receiving the copy you sent. Also, please send me a copy of the issue that contains your article on the advanced diving class/anchor salvage.

I've been to Midway twice in the past three months, both times in conjunction with chartered trips on the Easy Rider. We visited Maro Reef, Lisianski Island and Pearl and Hermes Reef. The diving at Maro was exciting, anywhere from 9-15 gray reef sharks (3-6') around us at any one time. At Lisianski I tagged over 25 turtles.

As soon as I get a chance to dig through my files, I'll send you a copy of the large turtle Chris caught in the Inner Harbor. Do you want a slide or a print?

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

CHB:ec

September 26, 1978

Dr. R. Grandperrin
Fisheries Advisor
South Pacific Commission
Post Box D5
Noumea Cedax, New Caledonia

Dear Rene:

Thank you for your letter of 8 September concerning my previous comments on the potential importance of the turtle tagging work in Tahiti. In answer to your question, no, I do not think there is any great urgency in requesting these data. It would be excellent and appropriate if the program's results were presented at the planned workshop on marine turtles.

If there is any way during the coming months that I assist you in preparing for the workshop, please feel free to call upon me. At the May 1978 IUCN turtle meeting in Toronto one of the projects I suggested (in writing) for the WWF "Action Plan" was partial funding support for a Pacific Islands' Conference on Marine Turtles. Perhaps SPC should contact WWF/IUCN with the aim of obtaining such funds for the workshop.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

September 19, 1978

Lt. Commander C. C. Gage
Commanding Officer
Explosive Ordnance Disposal
Mobil Unit 1
Barbers Point, Hawaii 96862

Dear Lt. Commander Gage:

I would like to take this opportunity to compliment a member of your staff, HTI Steve Jones, for providing outstanding guidance and assistance during my survey of sea turtles along the southwest coast of Kahoolawe from 23-25 August 1978. Steve's constant alertness for ordnance hazards was recognized and certainly greatly appreciated. In addition to being a professional in his field, Steve also turned out to be a personable companion for such field work.

Sincerely,

George H. Balazs
Assistant Marine Biologist and
Principal Investigator
Hawaiian Marine Turtle
Management Study

GHB:md

September 15, 1978

To: Gilbert K. Oshima
Comptroller, RCUH

From: George H. Balazs
Assistant Marine Biologist

This is to request the transfer of funds from my new green turtle project 4053 in order to make up the deficit incurred in the old project 4029. All of the outstanding purchase orders for 4029 should now be accounted for after the enclosed forms are processed.

Thank you for your attention to this matter.

mk

September 19, 1978

To: Jack R. Davidson
Director, Sea Grant College Program

From: George H. Balazs
Assistant Marine Biologist (R3-52)

Subject: SURVEY AND ASSESSMENT OF THE GREEN SEA TURTLE RESOURCE OF THE
NORTHWESTERN HAWAIIAN ISLANDS - PREPROPOSAL FOR CONTINUING
SUPPORT THROUGH YEAR 12

The attached preproposal information is in response to your memo of September 14, and further to my memo of September 11 concerning the same subject (copy attached).

Should any questions arise, I will be in my office through Friday, September 22. Between September 23-October 6 I will be conducting field work in the Leeward Islands from the vessel Easy Rider.

Thank you in advance for your continuing assistance in these matters.

mk
Attachment

September 12, 1978

Mr. Clifford H. Fiscus
Marine Mammal Division
Northwest and Alaska Fisheries Center
National Marine Fisheries Service
7600 Sand Point Way
Seattle, Washington 98115

Dear Cliff:

I would greatly appreciate receiving copies of the following reports that were issued by your laboratory.

Fiscus and Kozloff (1972) Fur seals and fish netting, p. 122-132.

Kajimura, H. (1976) Interrelationships of northern fur seals and actively fished fishing gear, 7 p.

Roppel, Kozloff and Lander (1978) Population assessment, Pribilof Islands, p. 1-15.

Many thanks for sending me the copy of your August 1978 report.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

September 12, 1978

Mr. Robert L. DeLong
Marine Mammal Division
Northwest and Alaska Fisheries Center
National Marine Fisheries Service
7600 Sand Point Way
Seattle, Washington 98115

Dear Bob:

I would greatly appreciate receiving copies of the following two reports that were cited in the recent Fiscus, Johnson and Kenyon 1978 monk seal report.

1976 Current information on Hawaiian monk seals. Food and Agric. Organ. U.N., Comm. Mar. Resour. Res., FAO, 4 p.

1978 Investigation of Hawaiian monk seal mortality at Laysan, Lisianski, French Frigate Shoals, and Necker Island, May 1978. Interim Rep. 5 July 1978, 22 p.

Hopefully you received the copied transparency of the elephant seal that I sent you some time ago.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

September 11, 1978

To: Dr. Jack R. Davidson, Director
Sea Grant College Program

From: George H. Balass
Assistant Marine Biologist

Subject: SURVEY AND ASSESSMENT OF THE GREEN SEA TURTLE RESOURCE OF THE NORTH-
WESTERN HAWAIIAN ISLANDS (MR/R-5)

This is to inform your office of my intent to request continued funding for my current project MR/R-5 through Sea Grant Year 12 (1979-80). The reasons for this request are as follows:

1. My original proposal and budget covered a two year period (Sea Grant Years 10 and 11), however Year 11 has been shortened to only nine months. This will impose serious constraints, particularly on the amount of field work that can be accomplished during the green turtle breeding season of the summer of 1979.
2. The green turtle has recently been listed under provisions of the U. S. Endangered Species Act of 1973. This joint action by the National Marine Fisheries Service and the Fish and Wildlife Service focuses attention on the need to gather basic biological and ecological information that can be used for management purposes. While there is no doubt that I will have gathered considerable life history data by the end of Year 11, a continuing year of intensive field work would yield important tag recoveries needed to further delineate growth rates, movements of juveniles, and habitat utilization (marine critical habitat).
3. My project represents a valuable component to the Triparty Agreement covering surveys and assessments of the resources of the Northwestern Hawaiian Islands. This overall study by NMFS, FWS and the State of Hawaii is now in its second year of the five-year program. In this respect, Mr. Richard Shomura has indicated his support for a continuing project on the green turtles, and encouraged me to request an additional year of Sea Grant funding.

mk

September 11, 1978

Dr. John R. Twiss, Jr.
Executive Director
Marine Mammal Commission
1625 I Street, N.W.
Washington, D. C. 20006

Dear Dr. Twiss:

It was a pleasure to make your acquaintance during the interesting and informative meeting dealing with the Hawaiian monk seal. Hopefully, the discussions that took place resulted in a better understanding of this complex issue by all parties involved.

As several of us emphasized, there is presently an urgent need to assemble a recovery team for the Hawaiian monk seal which consists of knowledgeable individuals from both within and outside of Hawaii. Such a group could surely provide useful ideas and guidance to the formulation of research and management plans. As an individual who has stayed in close contact with matters relating to the Hawaiian monk seal, I would certainly be willing to serve as a member of this team should you feel that this would be desirable and appropriate. I would also like to take this opportunity to make you aware of other persons in Hawaii who I feel could make valuable contributions to such a team. These are:

1. Mr. Brent Giezantner, FWS
2. Mr. Eugene Kridler, FWS
3. Captain Gary Naftel, Easy Rider
4. Mr. John Naughton, NMFS
5. Dr. Edward Shallenberger, Sea Life Park, Inc.
6. Mr. Richard Shomura, NMFS
7. Dr. Leighton Taylor, University of Hawaii
8. Mr. Ronald Walker, State Division of Fish and Game
9. Dr. Causey Whittow, University of Hawaii
10. Mr. David Woodside, State Division of Fish and Game

When your travels bring you to Hawaii again, please contact me (tel. [808] 247-6631) so that I can offer you the opportunity to visit our laboratory in Kaneohe Bay and discuss matters of common interest.

Sincerely,

GHB:ec

Enclosures

GEORGE H. BALAZS
Assistant Marine Biologist and
Member, IUCN Turtle Group

UNIVERSITY OF HAWAII AT MANOA
Hawaii Institute of Marine Biology
P.O. Box 1346 - Coconut Island - Kaneohe, Hawaii 96744
Cable Address: UNIHAW

August 30, 1978

Mr. Encik K. W. Scriven
World Wildlife Fund Malaysia
P. O. Box 769
Kuala Lumpur
Malaysia

Dear Mr. Scriven:

As requested in your letter of 17 August, I am sending you under separate cover a copy of the translated report dealing with the hawksbill industry in Japan.

You may recall that we met briefly at the East-West Center in Honolulu some months ago following the showing of your excellent film on the leathery's of Trengganu. I have also recently had the pleasant experience of meeting Mr. Siow of the Fisheries Department.

Hopefully your program is going well.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

UNIVERSITY OF HAWAII AT MANOA
Hawaii Institute of Marine Biology
P.O. Box 1346 - Coconut Island - Kaneohe, Hawaii 96744
Cable Address: UNIHAW

August 30, 1978

Dr. Peter F. R. Jackson
Director of Information
World Wildlife Fund
1110 Morges
SWITZERLAND

Dear Dr. Jackson:

As requested in your letter of 17 August, I am sending you under separate cover two copies of the translated report dealing with the hawksbill industry in Japan. You may want to note that in May 1978 I provided IUCN headquarters with a copy of this report.

If I can be of further assistance, please feel free to contact me.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

August 30, 1978

Dr. Thomas E. Lovejoy
Program Director
World Wildlife Fund-U.S.
1601 Connecticut Avenue, N.W.
Washington, D. C. 20009

Dear Dr. Lovejoy:

Thank you for your letter of 21 July 1978 concerning my pending research proposal on the natural rate of growth of green turtles. I was, of course, quite surprised and disappointed to learn that no action was ever taken in this matter. Nevertheless, your continued consideration for funding would be appreciated. Life history studies of Hawaiian *Chelonia* are currently being conducted under my direction with financial support from the State of Hawaii and the National Sea Grant College Program. However, most of these funds are used to cover my base salary, with only a low level being available for supplies, travel, and research assistants. Some important progress has been made in my program with respect to ascertaining rates of growth. However, it has not been possible under existing conditions to give this component the emphasis that it truly deserves. That was my original reason for applying for supplemental funds from the World Wildlife Fund. The same situation continues to exist with perhaps even greater importance today in view of the recent listing of three more species of sea turtles as threatened and endangered.

Again, thank you for your continuing consideration. I understand the complexities and pressures of your own particular job.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

PRELIMINARY OUTLINE FOR A PACIFIC ISLANDS' WORKSHOP ON
THE MANAGEMENT AND RESEARCH OF SEA TURTLES

by

G. H. Balazs
August 1978

Pacific Island nations which comprise Polynesia, Melanesia and Micronesia still possess viable populations of sea turtles that are nutritionally and culturally important to the native people. Due mostly to inadequate knowledge and cooperation in the management of these resources, it is doubtful that such sea turtles will be in existence for traditional usage by future generations. An urgent need therefore exists to convene a working conference on the status, problems and possible solutions associated with sea turtle management and research in the Pacific Islands. The workshop could be held under the auspices of the South Pacific Commission, with financial support and scientific advice provided in part by the National Marine Fisheries (USA) and the International Union for Conservation of Nature (IUCN). Invitations for attendance could be extended to a wide array of sea turtle biologists and managers working both within and outside of the Pacific basin.

Some major topics for discussion:

1. Status of the various populations
2. Status of knowledge on the life history of the various species
3. Existing management practices and research programs
4. Methods for improving intraregional cooperation
5. Training programs in management and research practices
6. Turtle tagging and turtle tags

Nations that are either known or thought to control important aggregations of feeding or nesting sea turtles in the Pacific are as follows:

1. Australia
2. Cook Islands
3. Fiji
4. French Polynesia
5. Gilbert Islands
6. Hawaii (USA)
7. New Guinea
8. New Hebrides
9. Phoenix Islands (UK and USA)
10. Solomon Islands
11. Tonga
12. Trust Territory of the Pacific
13. Tuvalu
14. Western Samoa

At least one representative from each of these areas should be in attendance.

Possible participants who have potential for providing useful information:

- S. Spring - New Guinea
- D. Brandon - formerly Cook Islands
- U. Raj - Fiji
- R. Stone - Fiji
- W. Travis - Fiji (formerly W. Samoa)
- M. McCoy - Trust Territory of the Pacific

G. Balazs - Hawaii
C. Limpus - Australia (Torres Strait)
R. James - Solomon Islands
V. Matagi - W. Samoa
S. deSilva - Sabah/international
A. Carr - international
H. Hirth - international
N. Mrosovsky - international
R. Grandperrin - SPC

The Peacesat communications system of the University of Hawaii could serve as a vehicle for laying the groundwork for this workshop. Peacesat has already been used during 1976 for several Pacific-wide roundtable discussions on sea turtles.

August 22, 1978

Mr. Richard B. Roe
Acting Chief, Marine Mammals and
Endangered Species Division
National Marine Fisheries Service
National Oceanic and Atmospheric Administration
3300 Whitehaven Street, NW
Washington, D. C. 20235

Dear Mr. Roe:

I have had the opportunity to review the Final Rules and Final Environmental Impact Statement for the listing of sea turtles which was originally proposed in December 1973 and April 1974. Although federal action on this matter is long overdue, I believe that the NMFS and FWS should be commended for their efforts in the preparation of these final documents. The goal of protecting sea turtles without unduly restraining shrimp and other commercial fisheries can hopefully now be achieved in the near future.

There is one point concerning the subsistence use of green turtles that I would like to bring to your attention before the final rules go into effect. Under the State of Hawaii's sea turtle regulation that became effective in May of 1974, green turtles 36 inches and larger may be taken for home consumption with a free permit issued by the Division of Fish and Game. The records indicate that the following numbers of turtles have been legally taken under this provision: May - December, 1974 - 9; 1975 - 6; 1976 - 21; January - June, 1977 (my most recent data) - 16. Although not stated in the records, food preference and recreation/sport are undoubtedly the major reasons that these turtles were taken. Several of the turtles, however, may indeed have been taken for true subsistence purposes. In view of such a small number (perhaps less than 5 per year), you may want to give further consideration to allowing subsistence fishing in Hawaii in the same manner that will be permitted in the Trust Territory. The estimated five turtles per year that would be legally taken under such a provision could not be expected to have a significant adverse impact on our green turtle population. At the same time, the protein available from these animals may be nutritionally important to diets of a few residents.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

August 21, 1978

Dr. Jeremy Cherfas
Department of Psychology
University of Toronto
Toronto, Ontario M5S 1A1
Canada

Dear Jeremy:

Thanks for your note of 9 August concerning Ehrenfeld's paper and your thoughts on doing an article on the Cayman Farm issue. Actually, my principal reason for sending the paper was to expose you to David's logic on the Padre Island Kemp's ridley project that you had moderately praised in your previous New Scientist article on sea turtles. Although this project may indeed prove to have some merit, not all authorities agree that it is worthwhile given our existing knowledge of the species.

To most of us in the U. S. the Cayman Farm issue is now essentially dead and buried. Rules recently set forth under provisions of our Federal Endangered Species Act will soon eliminate all importation of turtle mariculture products. As might be expected, sales personnel for the Cayman company are trying to unload as much material (steak, jewelry, etc.) as possible into the U. S. in order to take advantage of the one year grace period that U. S. businesses will have to eliminate existing stocks.

If you haven't done so already, I am sure it will be valuable for you to ~~stay~~ stay in close contact with Nicholas on whatever articles on sea turtles you may decide to write for New Scientist.

Best regards and Aloha.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

August 16, 1978

Ms. Kathy Means
Reg. 3, Id. Fish and Game
109 44th Street
Boise, Idaho 83704

Dear Ms. Means:

Thank you for your letter of 10 August 1978 concerning possible investigations of green turtles in conjunction with an advanced degree program. Your comments on the nocturnal emergence mechanisms of hatchlings were most interesting. If a report was prepared on your brief study, I certainly would appreciate receiving a copy. Presumably your work on Heron Island was part of the program being conducted by Colin Limpus.

By copy of this letter, I am making your interests known to Dr. Nicholas Mrosovsky of the University of Toronto. Dr. Mrosovsky has conducted considerable research in this area, and he is in a far better position to advise you on such graduate work. My work in Hawaii is presently being conducted under special contract and the opportunities for student involvement are limited.

Please feel free to call upon me if I can be of further assistance.

Sincerely,

George H. Balazs
Asst. Marine Biologist

GHB:md

August 15, 1978

Mr. William H. Meinecke
Star Route 8, Waiohina
Naalehu, Hawaii 96772

Dear Mr. Meinecke:

Thank you very much for your interesting and informative letter of July 31st concerning turtle nesting at Kau. With your permission, I would like to meet with you in person to discuss turtles during my next trip to the Big Island. Hopefully this will be possible sometime during the month of September.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

August 15, 1978

Mr. Martin Naftel
1050 Koloa Street
Honolulu, Hawaii 96816

Dear Mr. Naftel:

I would like to take this opportunity to express my appreciation for the valuable assistance which you provided to my ecological studies of green turtles at Lisianski Island between 19-23 July 1978. Your conscientious work and enthusiasm during the course of this research made a significant contribution to the expedition's success. Hopefully we will have the opportunity to work together again in the near future.

Sincerely,

George H. Balazs
Assistant Marine Biologist
and Member, IUCN Marine Turtle
Group

GHB:md

August 11, 1978

TO: Dr. Richard A. Sanderson
Media Specialist

FROM: George H. Balazs
Asst. Marine Biologist

SUBJECT: Jacques Cousteau's film "The Green Sea Turtle."

With respect to our recent telephone conversation, it would be helpful to enter the following sentence in your next catalog:

"The Green Sea Turtle" portrays an erroneous view of the extent and circumstances of naturally occurring predation on hatchling turtles by frigate birds.

If deemed appropriate, you may list my name as the reference for this statement.

GHB:ec

P. O. Box 1346
Kaneohe, Hawaii 96744

August 14, 1978

Herp Osteo-Specimens
11324 Ventura Boulevard
North Hollywood, California 91604

Dear Sir:

I would like to obtain either the skull and mandible or the complete preserved head of a loggerhead sea turtle, Caretta caretta. If you have such material, please notify me of the price and other specifics.

Thank you very much for your assistance.

Sincerely,

George H. Balazs

August 9, 1978

Ms. Karen Bjorndal
Department of Zoology
223 Bartram Hall
University of Florida
Gainesville, Florida 32611

Dear Karen:

After several inquiries, I have at long last been able to track down the tagging information for turtle B26. You will recall that B26 was observed basking on Sand Island at Kure Atoll by Coast Guard personnel in November of 1976. This turtle was tagged as an adult (estimated 3 feet in carapace length) at Kure in May of 1964 by Robert R. Fleet. It took a total of 6 people to capture the turtle which was found swimming in the lagoon.

This is an interesting piece of additional information with respect to the longevity of adult green turtles. I wonder if you can tell me what the longest elapsed time is in the Caribbean/Atlantic for the recovery of a tagged adult?

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

August 8, 1978

Dr. Joseph R. Sylvester
NMFS Regional Turtle Manager
Duval Building
9450 Koger Boulevard
St. Petersburg, Florida 33702

Dear Joe:

Many thanks for sending me the summary of the Tampa meeting. I certainly would like to have attended, however the scheduling of the Coast Guard flight out of French Frigate Shoals prevented this from being possible. I have some domestic travel funds in reserve until January 1979 so if another worthwhile meeting is foreseen please let me know.

Like others that attended the meeting, I also have concern about the FWS-NMFS Padre Island ridley project. The statement (in the meeting summary) that "Dr. Carr's work has not indicated absolute success" is really somewhat of an overstatement. I don't believe that Archie ever did much in the way of "head-starting" experimentation. If the statement is meant to refer to Archie's hatchling transplantation experiments, then the answer would have to be that no success was achieved. My recommendation is that the entire project should be approached with caution and proper qualifying statements so as to not stimulate over-optimism for chances of success (see attached news article). Another serious and perhaps unconsidered aspect is the possible introduction into the wild of exotic diseases obtained during the turtles' period in captivity.

In the cover letter, you asked if the recipients would like to serve on the recovery teams which will be formed. If appropriate, I would be most willing to serve on any of the Southeast region teams where you feel I can be of value.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Attachment

August 1, 1978

To: Dr. Jack R. Davidson, Director
Sea Grant College Program

From: George H. Balass

My Sea Grant project (NR/R-2) budget for year 10 contains the sum of \$798 for the purpose of attending a conference on sea turtles. Between May 8-11 I attended such a conference convened by the National Marine Fisheries Service in Bay St. Louis, Mississippi. All expenses for this trip were paid by NMFS, therefore it was not necessary to utilize my Sea Grant allowance. If possible, I would like to have these unexpended funds carried over to year 11 for the purpose of attending a similar forthcoming meeting.

Thank you in advance for your assistance in this matter.

GHB:md

August 1, 1978

Polynesie Francaise

No. 602/Pêche

Papeete, le 10 Septembre 1975

Le Chef du Service de la Pêche

à

Monsieur F. A. Gauld

Fisheries Officer Honiara - Solomon Islands

Fisheries Division

Subject: Information on tagged marine turtle.
RVL F/10/8 of 1/9/75

Sir:

I thank you for communicating to me the information on a turtle tagged by the Fishery Service. This was a scientifically important discovery.

In effect, the French Polynesian Fishery Service has tagged the species *Chelonia mydas* since 1972 to study its migrations, and to assure a hope of survival.

Dans la meme optique, le Territoire de la Polynesie Francaise a d'autre, fait prendre des mesures reglementaires tres esmergiques dans le seul but de sauvegarder l'espece en voie de disparition. (Ci-joint, le texte en question).

The following information is provided to satisfy your curiosity about the turtle (*Chelonia mydas*), registered n 1081-TAHITI, captured by M. Ramoni. This animal originated from a clutch that was artifically raised by the Fishery Service at Avatoru, Rangiroa Atoll in the Tuamotu Archipelago. Mr. Les Tokoragi worked on this project.

- Date of birth May 4, 1972
- Raised in captivity at Avatoru (turtle was fed fish, algae, and herbaceous terrestrial plants)
- Released August 3, 1973 in the Rangiroa lagoon, Taeco section (the lagoon has two large passes and a surface area of more than 700 square miles)

Monsieur F. A. Gauld
August 1, 1978
Page 2

Morphological data

<u>at release</u>		<u>at capture</u>
weight:	6.700 kgs	?
carapace length:	36.9 cm	48 cm.
carapace width:	34.6 cm	45 cm.
head width:	6.5 cm.	?
circle of chest:	69 cm	?
plastron width:	29.9 cm	?
sex:	female	?
age:	15 months	+ 39 months

This capture demonstrates the interest of our work in marking, and permits us to contradict certain theses which claim that a turtle raised in captivity from the egg stage to seven months and further, with a diet different from natural surroundings, loses the sense of orientation for traditional migrations. This capture proves the great difficulties of adaptation in the natural ocean surroundings for nourishing and escaping the attacks of numerous predators.

I am informing you further that the turtles tagged in French Polynesia make their way in their migrations in a full west direction across the Pacific seeing that they are just today being discovered in Tonga, Samoa, Fiji, Wallis-Futuna, New Hebrides, New Caledonia, and the last, in the Solomons.

A compensation on the order of US \$4-5 is in effect allowed to all fishermen who have captured and transmitted the reports on turtles which have been tagged by the Territories of the South Pacific. The organization charged with payment is the ADPIPS of the South Pacific Commission (SPC) - Noumea.

Please accept, Mr. Chief of the Service, the assurance of my highest consideration.

(signed)

S. Stein
Fishery Service
French Polynesia

July 31, 1978

The Honorable George A. Smith
Minister of Agriculture, Fisheries
and Local Government
P. O. Box N3028
Nassau, Bahamas

Dear Minister Smith:

Thank you for your letter of May 30, 1978 concerning possible protection for hawksbill turtles in the Bahamas. As requested, I am sending you a copy of the law relating to sea turtles in the Hawaiian Islands. Please feel free to contact me if I can be of further assistance.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

bcc: K. Bjorndal
(Dept. of Zoology
Bartram Hall
University of Florida
Gainesville, Florida)

July 31, 1978

Dr. Ancel Johnson
National Fish and Wildlife Laboratory
Anchorage Field Station
4454 Business Park Blvd.
Anchorage, Alaska 99503

Dear Ancel:

I want to take this opportunity to express my appreciation for being able to accompany your research charter to the Northwestern Hawaiian Islands. My work at Lisianski proved to be particularly valuable, with a total of 17 young turtles tagged and sampled for stomach contents.

The enclosed photo was taken shortly after our departure from Lisianski.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

July 31, 1978

Dr. Bill Hammer
Micronesian Mariculture Demonstration Center
P. O. Box 359
Koror, Palau
Caroline Islands 96940

Dear Bill:

Attached is a Xeroxed section from a summary of a NMFS meeting recently held in Tampa on the research and management of sea turtles. As you may be aware, Jim McVey is now involved in some "head-starting" experiments with the Atlantic (Kemp's) ridley. I wonder if you can provide any additional information on the "...increase in the numbers of juvenile turtles in the Palau Lagoon..." which Jim mentioned was noted following head-starting work at your lab? Do any of your staff members or local residents (Bill Owens?) feel that any long term benefits were obtained from the releases? I realize that the absence of any tagging by Jim makes this a highly subjective evaluation.

Any information that you can provide on this subject will be greatly appreciated.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk
Enclosure

July 11, 1978

Dr. F. Wayne King
New York Zoological Society
185th St. and Southern Blvd.
Bronx, N. Y. 10460

Dear Wayne:

You have probably already seen the enclosed article from NMFS Marine Fisheries Review, however in case you missed it, I thought I would bring it to your attention. To me, the article presents covert endorsements of the Cayman operation.

At the Toronto meeting Nicholas mentioned that a report on captive nesting had recently been prepared by Cayman and transmitted to IUCN. However, Nicholas had not seen it. Are you aware of this report and, if so, can you send me a copy.

During our telephone conversation on July 5th, I forgot to ask you what happened to the NMFS meeting that was going to be held in Mexico.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Encl.

July 11, 1978

Dr. James B. Murphy
Department of Herpetology
Dallas Zoo
621 East Clarendon Drive
Dallas, TX 75203

Dear Dr. Murphy:

As requested, I have reviewed the manuscript by David W. Ehrenfeld entitled "Commercial breeding of captive sea turtles: Status and Prospects." Except for the minor penciled comments, I find the manuscript well reasoned and logically prepared. I fully endorse its publication in the Society's volume on the reproductive biology of captive reptiles.

Sincerely,

George H. Balazs
Assistant Marine Biologist and
Principal Investigator
Hawaiian Green Turtle Management Study

GHB:md

MEMORANDUM

July 10, 1978

TO: Dr. Andrew Kemmerer
Southeast Fisheries Center
National Fisheries Engineering Laboratory

FROM: George H. Balazs
Assistant Marine Biologist

SUBJECT: Long-Distance Tracking of Hawaiian *Chelonia* by Satellite

This is to provide additional information in response to your telephone inquiry of 26 June 1978 concerning the possibilities and potential benefits of utilizing Hawaiian green turtles for long-distance tracking by satellite.

As you are probably aware, adult sea turtles, particularly green turtles, are well-known for their periodic migrations between resident shallow-water feeding pastures and sites where colonial breeding takes place. Within the 1600 mile-long Hawaiian Archipelago, the centrally located crescent-shaped atoll of French Frigate Shoals is the breeding site for Hawaiian green turtles. Tagging studies have thus far demonstrated that round trip migrations to this location take place from feeding pastures around the major inhabited islands at the southeast end of the chain, as well as pastures to the northwest of French Frigate Shoals (i.e. Laysan, Lisianski, and Pearl and Hermes Reef). The absence of any international tag recoveries from these animals strongly suggests that their range is restricted to the Hawaiian Archipelago. Such complete jurisdiction by the United States greatly simplifies political problems related to management and research of the population. The enclosed reprint from the journal Biological Conservation provides further information on Hawaiian *Chelonia*. It is perhaps important to note at this point that I have been personally monitoring ecological characteristics of the French Frigate Shoals' breeding colony for the past six consecutive seasons. The unique land basking behavior of our green turtles has allowed this research to also encompass adult males, an aspect about which very little is known for other sea turtle populations. Also, for the past two years my work has included the use of a substantially improved turtle tag made from Inconel 625 Alloy.

Although efforts have been made by Dr. Carr in the Caribbean to track green turtles over long distances, this has not been successfully accomplished due to inadequacies of the available instrumentation. The basic reason for wanting to track these animals is to gain insight into exactly what navigation mechanisms

Dr. Andrew Kemmerer

-2-

July 10, 1978

are used to make open ocean voyages. Although an array of possible explanations has been set forth in the literature, knowledge of the actual methods employed is virtually nonexistent. Successful tracking research can supply information, the exact courses taken, the levels of nocturnal versus diurnal activity, and the speed of travel. From a management aspect, these data have potential for assessing the ability to restock populations or re-establish breeding sites through headstarting, transplanting and other manipulatory procedures.

I would welcome the opportunity to collaborate in full with you and members of your staff on a tracking project in the Hawaiian chain. I look forward to hearing from you again when you are notified as to the possibilities of implementing such a project.

GHB:ec

Encl.

cc: Richard Shomura
Stanley Swerdloff

July 10, 1978

To: Dr. Jack R. Davidson, Director
Sea Grant College Program

From: George H. Balazs
Assistant Marine Biologist

This is to inform your office that from 12 July to approximately 1 August 1978 I will be conducting field work of green turtles in the Leeward Islands aboard the vessel EASY RIDER. I have been invited to join in an expedition funded by the Marine Mammal Division, NMFS of the National Marine Fisheries Service which will visit all of the islands from Nihoa to Midway in conjunction with studies of the monk seal. The attached copied memorandum provides further information for your files.

GHB:md

Attachment

July 7, 1978

Mr. Mark Wexler
Senior Editor
National Wildlife
225 E. Michigan
Milwaukee, WIS 53202

Dear Mr. Wexler:

Thank you for your letter of 30 June 1978 which, among other things, expressed interest in publishing a note on green turtle and monk seal basking in Wildlife Omnibus. I would be pleased to permit use of this photo in your fine magazine at no charge. I do, however, request that: 1.) photo credit be provided - "Photo by G. H. Balazs, Hawaii Institute of Marine Biology/Sea Grant"; 2.) the black and white prints that are enclosed be returned after use; and 3.) 25 copies of the issue in which the note appears be provided to me for distribution at no cost to conservation/education oriented associates here in Hawaii.

Concerning your request for more information about the relationship of basking turtles and seals, you didn't mention in your letter if you located in your files my commercially produced color booklet. In this publication I have outlined some of the general ecological aspects of Hawaiian green turtles and monk seals. Perhaps the enclosed publication on migratory considerations will also give you some insight. I am unaware of any other reptile and mammal that live together under such close circumstances in a nonpredatory relationship. Perhaps other such situations do exist, but I have been unable to identify them. The thermal ecology of basking Hawaiian green turtles is presently the subject of a small research project which is being conducted in collaboration with Dr. G. Causey Whitton (also of the University of Hawaii). This project is being financially supported by the National Geographic Society. We are, however, still at a relatively early stage in this work, with only limited results to date.

Whale-Skate consists of approximately acres and is one of 10 relatively stable islets spread over the shallow waters of French Frigate Shoals.

Mr. Mark Wexler
July 7, 1978
Page 2

Should you come to Hawaii in November, I will certainly try to assist you in whatever way feasible. As you have stated, the islands in the HINWR are very difficult to reach. Full permission must also be first obtained from the Fish and Wildlife Service. When your plans for a trip to Hawaii are more positive, perhaps you could telephone me (808-274-6631) and I could offer some suggestions on potential articles. My transparency collection will of course be available for use should it be needed.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Encls.

July 6, 1978

Dr. Nicholas Mrosovsky
Department of Zoology
University of Toronto
Toronto, Ontario M5S 1A1
Canada

Dear Nicholas:

Enclosed are the six project write-ups that I was assigned at our recent meeting. Please note that I have deleted the original Project No. 9 title (S. China Sea feeding pastures including Vietnam and Cambodia) and replaced it with "Survey of the Japanese Hawksbill Industry." The events in Cambodia and Vietnam since our meeting seem to make it totally inappropriate to propose a project for the area. I hope that my replacement project will be acceptable to you and Archie.

David Ehrenfeld's paper for the SSAR symposium certainly pulled together many of the same thoughts I have had, particularly on Ross Whittam's work and the proposed project for Padre Island. Perhaps David's paper can be abstracted for use in the Newsletter (?)

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

July 3, 1978

Mr. Earl Kubo
403 Kahili Street
Hilo, Hawaii 96720

Dear Earl:

I want to take this opportunity to thank you for your role in the discovery of hatchling sea turtle at Kalapana last September. The information which you provided to Mr. Takata has been passed on to me for use in my research program of Hawaiian sea turtle. When this material is eventually published, I will be sure to give you proper credit.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

cc: Mr. Howard Takata
Marine Advisory Program

June 26, 1978

Mr. George P. Stewart
Ministry of External Affairs
P. O. Box N792
Nassau, Bahamas

Dear Mr. Stewart:

As requested in your letter dated 14 June 1978 (No. EEE/138), I am forwarding a copy of Hawaii's regulation which provides full protection to the hawksbill sea turtle.

Please feel free to contact me again if I can be of further assistance.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

June 26, 1978

MEMORANDUM

TO: Mr. Kanji Ego, Director
Division of Fish and Game

FROM: George H. Balazs
Assistant Marine Biologist

SUBJECT: Scientific permit for Hawaiian green sea turtle research.

This is to request renewal of my scientific permit which is due to expire on 30 June 1978.

Mr. Ronald McOmber, P. O. Box 104, Lanai City, 96763, occasionally has the opportunity to measure and tag turtles. I would therefore like to request that Mr. McOmber's name be included on my permit as a cooperator under my responsibility.

Thank you very much for your assistance in this matter.

GHB:ec

Enclosures

June 26, 1978

Ms. Karen Bjorndal
Department of Zoology
223 Bartram Hall
University of Florida
Gainesville, Florida 32611

Dear Karen:

I just returned from French Frigate Shoals and had the opportunity to read your letter of 8 June 1978. Yes, by all means, please feel free to cite my Necker Island report in your thesis and journal publication. Dr. Carr mentioned your findings of digestibility of the cell wall of marine plants by green turtles. This is certainly interesting and, hopefully, I can get a complete copy of your thesis when it is completed.

My technique for obtaining a food sample from the stomach of a juvenile sea turtle involves the use of a small diameter plastic tube which is commonly used for pumping a child's stomach. The tube is made semi-rigid by inserting an insulated electrical wire of the proper diameter into the tube. After the tube is inserted down the esophagus and into the stomach, the electrical wire is withdrawn. Salad oil works well for keeping everything properly lubricated. Once the tube is in the stomach it can be aspirated, either orally or with a syringe. The oral method provides more control but, of course, care has to be exercised to prevent an unpleasant taste. This technique has about a 75% success rate for obtaining a stomach sample. I have never tried it on a turtle weighing over 50 lbs. Previous to this technique, I used a specialized mechanic's tools, commonly called "fingers," which is very flexible and has the ability to take a grab sample. This worked well, however, a small piece of tissue would sometimes be obtained along with the food sample. I therefore now prefer the tube technique. If you use and write about this methodology, I would appreciate receiving referenced credit. Its obviously relatively simple, but I am unaware of anyone previously doing it.

As requested, I am sending you a copy of Schmidt's paper. As you may know, I've had a small research proposal on juvenile growth submitted to WWF for over a year. Every time I inquire about it I get the run-around.

Ms. Karen Bjorndal

-2-

June 26, 1978

I am sorry that you did not go to the Toronto meeting. It would have been nice to see you and discuss our many areas of common interest. Please continue to feel free to call upon me if you think I can aid in your work.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:Mc

Enclosures

June 26, 1978

Mr. G. Richard Stonesifer
Missions Utilization Office
Applications Directorate
National Aeronautics and Space Admin.
Goddard Space Flight Center
Greenbelt, Maryland 20771

Dear Mr. Stonesifer:

Thank you for your letter of 12 June 1978 concerning my request for Landsat 3 imagery of the Northwestern Hawaiian Islands. As requested, I am providing you with more detailed information on the sites in this area which have not been previously covered by Landsat imagery. It is perhaps important to note that most of these locations are part of the State of Hawaii.

1. Kaula Island, including shoal areas extending approximately four miles to the northwest;
2. Nihoa Island, including shoal areas extending for approximately a three mile radius around the island;
3. Necker Islands, including shoal areas extending for approximately a 20 mile radius around the island;
4. French Frigate Shoals, including all islets and lagoon areas;
5. Gardner Pinnacles and the associated shoal extending approximately 15 miles to the south.
6. Laysan Island and its associated shoal area;
7. Maro Reef, including all shoals in the 5 by 12 mile area;
8. Lisianski Island, including all of Neva Shoal which extends approximately 15 miles to the southeast;
9. Pearl and Hermes Reef, including all islets and lagoon areas;

Mr. G. Richard Stonesiæer

-2-

June 26, 1978

10. Kure Atoll.

The copied charts are also being forwarded as you requested.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosures

cc: Marine Affairs Coordinator

SUMMARY REPORT ON A MEETING CONVENED BY THE NATIONAL MARINE FISHERIES SERVICE
TO FORMULATE A NATIONAL PLAN FOR THE MANAGEMENT AND RESEARCH OF
MARINE TURTLES

submitted by

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

Dates of Meeting: 8 - 11 May 1978

Location: Southeast Fisheries Center
National Fisheries Engineering Laboratory
NSTL Station, Mississippi

Participants: Richard Roe
Acting Associate Director
Division of Marine Mammals and Endangered Species
(departed 9 May 1978)

Larry Ogren
Fishery Biologist
Southeast Region

Donald Ekberg
Program Manager for Sea Turtles
Southeast Region

Joseph Sylvester
Program Manager for Sea Turtles (as of 7/1/78)
Southeast Region

Thomas Vanselous
Southeast Fisheries Center
NSTL Station

Frank Whittman
Southeast Fisheries Center
NSTL Station

George H. Balazs
Hawaii Institute of Marine Biology

Objective: The principal objective of the meeting was to assemble information relevant to the incorporation of the Southwest Region into the sea turtle program that is sponsored by the National Marine Fisheries Service. This program has been underway since FY 1976, but has thus far been confined to the Southeast Region.

Sea Turtle Problems in the SE Region:

1. Enforcement
2. Excessive predation on nests
3. Beach and marine habitat useage by humans
4. Shrimp trawling
5. Lobster trap/loggerhead interaction
6. Ground fish trawling
7. Gill nets
8. Absence of adequate biological and ecological information for management purposes

Approximate SE Region Budget:

FY 1976	\$70,000
FY 1977	\$380,000
FY 1978	\$350,000
FY 1979	\$450,000

all reprogramed personnel to date

Existing and Potential Problems in the SW Region:

1. Enforcement
2. Excessive predation on nests
3. Beach and marine habitat useage by humans
4. Purse seine and trawl fishing
5. Gill nets
6. Absence of adequate biological, ecological and sociological information for management purposes

Results: Revisions were made in the program plan for the SE Region in order to reflect national (SE and SW) problems and needs. The resulting document for a National Plan was to be forwarded to the NMFS in Washington, D. C. for further action.

Projects Suggested for the SW Region:

1. Population Survey and Assessment of the Hawaiian Islands, Johnston, and Wake - 5 years
2. Foreign Assistance to Pacific Island Nations - 5 years
3. Population Survey of Rose Atoll - 2 years
4. Population Survey of American Samoa - 1 year
5. Population Survey of Trust Territory, Guam and Commonwealth of the Northern Marianas - 5 years

6. Population Survey and Assessment of Canton and Enderbury Islands
- 3 years
7. Population Survey of Howland, Baker, Jarvis, Palmyra and Kingman
Reef - 3 years

Reference manuscript for the SW Region distributed at meeting:

Terrestrial Critical Habitat for Sea Turtles under United States
Jurisdiction in the Pacific Region by G. H. Balazs, March, 1978,
11 pp.

June 23, 1978

Mrs. Malba R. Hutchison:

Dear Mrs. Hutchison:

I was very sorry to learn that Mr. Hutchison had passed away in December. This is a great loss to my efforts to compile information on the natural history of French Frigate Shoals. If only I had written at an earlier date.

The impressions and recollections provided in your letter are valuable and therefore very much appreciated. I want to sincerely thank you for taking the time to write to me. I would very much like to have a copy of the picture showing the nine men on the island. If you do not have the negative, a professional photographer can have one made for use in printing for a reasonable cost (usually under \$5). I will, of course, reimburse you for all expenses. I hope that this will not be too much trouble for you.

If you have not already seen it, you will be interested in an article on the Leeward Hawaiian Islands which appeared in the May 1978 issue of National Geographic Magazine. The article features several photos taken at French Frigate Shoals, as well as a general description of the area.

Again, many thanks for your assistance. I look forward to hearing from you again when your time permits.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

June 23, 1978

MEMORANDUM

TO: Gus Higuchi
Administrative Assistant, RCUH

FROM: George H. Balazs
Assistant Marine Biologist

SUBJECT: Memorandum dated June 21, 1978 concerning RCUH employee
Alan K. H. Kam (Control No: F-8-307).

As of July 1, 1978, please derive payment of Mr. Kam's salary from my RCUH project 4029 (Hawaiian Green Sea Turtle Management Study). I am assuming that by this date all funds available in the University purchase order (Sea Grant) will be exhausted.

Thank you very much for your assistance in this matter.

GHB:ec

June 5, 1978

Mr. Mark Wexler
Senior Editor
International Wildlife
225 E. Michigan
Milwaukee, Wisconsin 53202

Dear Mr. Wexler:

As a researcher of sea turtles in the Hawaiian Islands, I was quite interested to read your article "How Peru Saved Paracas" which contained a photo of leatherback and other sea turtles. I wonder if you are aware of any individuals in Peru who are studying sea turtles? If so, I would greatly appreciate hearing from you when your time permits.

Sincerely,

s/George H. Balazs (ec)
GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

June 5, 1978

Ms. Sylvia Spring
Project Supervisor, Marine Turtles
Wildlife Branch
Department of Natural Resources
P. O. Box 2585
Konedobu, Papua New Guinea

Dear Sylvia:

Thank you for your letter of 17 April which accompanied the interesting and informative collection of papers on wildlife in Papua New Guinea. This was very much appreciated. It is my understanding that in the near future Peter Pritchard will become involved in some of your sea turtle research. You are fortunate to have acquired the services of such a qualified and personable individual.

In response to your question, yes I have had the opportunity to conduct some low level (800') aerial surveys of green turtles in their nearshore feeding pastures. The best results (highest counts) have been obtained during periods of calm when the turtles prefer to float for extended periods at the surface. It seems likely that this behavior is exhibited in order to take advantage of the warmed layer of water which exists during such weather conditions.

Enclosed are three publications covering some of my work here in Hawaii. I look forward to hearing from you again as your studies progress.

Sincerely,

s/George (ec)
GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosures

May 31, 1978

Dr. Nicholas Mrosovsky
Department of Zoology
University of Toronto
Toronto, Ontario M5S 1A1
CANADA

Dear Nicholas: '

The names and addresses you asked me to locate are as follows:

Mr. Richard A. Frank
Administrator
National Oceanic and Atmospheric Administration
Department of Commerce
Washington, D. C. 20230

Mr. Terry Leitzell
Director
National Marine Fisheries Service
Department of Commerce
Washington, D. C. 20235

Both Colin and Siow had a pleasant three day visit in Hawaii. You will be interested to learn that Siow again mentioned about the apparent need to reduce the number of eggs hatched in Trengganu. He pointed out that there is a Malaysian industry centered on jellyfish whereby the animals are dried and exported to Japan. Apparently there is some concern about the leatherbacks increasing and eating excessive numbers of jellyfish.

The attached publication appears to indicate that only approximately 7.1% of the eggs laid in 1975 were reburied for hatching.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Encl.

May 30, 1978

Chief Warrant Officer Joseph E. Hutchison
USMC, (Retired)
2021 Yosemite Drive
Lodi, California 95240

Dear Mr. Hutchison:

Your name has been kindly supplied to me by the Director of Marine Corps History and Museums in response to an inquiry to locate Marine Corps personnel who served at French Frigate Shoals prior to the start of construction (August 1942) on the Tern Island air station. The fact that a small contingent of U. S. Marines was assigned guard duty at this remote location during this particular time period was brought to my attention by the book BUILDERS FOR BATTLE by David Woodbury (1946). For your information, I have enclosed copies of pages 378-381 from Mr. Woodbury's book relating to this subject.

My desire to communicate with persons who had contact with the small, uninhabited islets at French Frigate Shoals before construction began on Tern Island stems from my involvement in biological research of green sea turtles. Over the past four years I have spent many weeks at French Frigate Shoals monitoring nesting activity. Most of my work has been carried out on the centrally located Island of East, which consists of little more than 12 acres. A Coast Guard LORAN station was located at this site between 1944 and 1952, however the island is presently once again uninhabited. Since 1952, the Coast Guard LORAN station has been situated on the reconstructed island of Tern. The Navy abandoned Tern Island in 1946 and it pretty much remained unused until 1952. All of the other small islands at French Frigate Shoals continue to be unused by man, serving as nesting sites for turtles, seabirds and seals.

What I am trying to do is gather together as much historical information as possible on the occurrence and past status of green sea turtles at French Frigate Shoals. Ideally, I would like to be able to speak with you in person about your experiences at French Frigate Shoals and learn whatever memories you may have of green sea turtles and other wildlife. Hopefully, someday this may be possible as I occasionally travel to the mainland United States. In the meantime, I hope you will have the time to write to me about this subject. Any assistance that you are able to

CWO Joseph E. Hutchison, USMC (Retired)
May 30, 1978
Page 2

provide, regardless of how small, will be greatly appreciated. I am interested in any turtle general observations that you may recall, such as occurrence and location of nesting and the numbers seen. Perhaps you may even have photographs taken during your tour of duty. I would, of course, reimburse you for the cost of duplicating any such material.

I fully realize that it has now been over 34 years since you were at French Frigate Shoals. In addition, due to the isolated location and short period of time spent there, I would certainly not expect you to recall your stay in much detail. However, I again repeat that I will sincerely appreciate any and all information that you are able to provide.

I look forward to hearing from you as soon as your time permits.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Enclosure

May 30, 1978

Mr. Siow Kuan Tow
Director of Fisheries
Fisheries Department
State of Trengganu
Malaysia

Dear Siow:

I attempted to contact you on Friday afternoon, but unfortunately you had apparently already checked out of the hotel in preparation for your return trip to Malaysia. Hopefully, your flight back was pleasant. Linda and I both enjoyed your company on Wednesday evening.

Under separate cover, I am mailing you a copy of the Japanese folkstory "Urashima Taro" which you expressed interest in obtaining. Please accept this book as a small gift.

I hope to be able to see you in Trengganu next year.

Sincerely,

George H. Balazs
Asst. Marine Biologist

GHB:md

May 30, 1978

Mr. A. J. Zwijnenberg
Borneostraat 23
3131 JC VLAARDINGEN
NETHERLANDS

Dear Mr. Zwijnenberg:

Thank you for your interesting and informative letter of 11 May 1978 concerning your conservation activities with respect to sea turtles. Your efforts are certainly commendable.

In response to your request, I have enclosed three photographs which you may use in your publications. I would, however, ask that you agree to the following two conditions.

1. Each publication use should be accompanied with photo credit to read "photo by G. H. Balazs, Hawaii Institute of Marine Biology."
2. Three copies of each publication should be sent to me at your earliest convenience.

I hope that these conditions will be acceptable to you. I look forward to hearing from you at your earliest convenience.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Enclosures

May 30, 1978

Professor Victor Bertullo
Director
Institute of Fish Research
Montevideo
URUGUAY

Dear Professor Bertullo:

Enclosed is a short newspaper article which recently appeared in the Honolulu Advertiser. As a researcher of sea turtles, I was very interested to read that the creature recovered in Uruguay had a "tortoise shell two meters in diameter." I would greatly appreciate receiving further information on this matter. Perhaps the recovered creature was a very large specimen of the leatherback turtle, *Dermaohelys coriacea*.

I look forward to hearing from you when your time permits.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Enclosure

May 30, 1978

Mr. C. Fred Zeillemaker
Refuge Manager
Fish and Wildlife Service
Crescent Lake National Wildlife Refuge
Ellsworth, Nebraska 69340

Dear Fred:

Many thanks for your letter of 10 May 1978 concerning Kaula, which I only recently received upon my return from sea turtle meetings on the mainland. I appreciate the information you provided, as well as your viewpoints on the island's status as a Navy bomb target.

It is my understanding that landings on Kaula from the water are impossible nearly all the time due to steep cliffs and rough surf. If this is indeed the case, there would seem to be a natural protection from trespassers. This would greatly reduce, if not eliminate, any enforcement problems related to Kaula becoming a State or Federal seabird refuge.

With the assistance of Senator Inouye, Skip Naftal has recently received a copy of the Kaula Environmental Assessment that the Navy prepared following the 1976 visit. It is my understanding that this document refers to six biologists (unnamed) that participated in the evaluation. I wonder if you recall who the other five individuals were?

Hopefully your work is all going well, and that life in Nebraska is pleasant. Best regards to you and family.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

May 30, 1978

Mr. William R. Lowell
Biomedical Branch
Code 5131
Naval Ocean Systems Center
San Diego, California 92152

Dear Mr. Lowell:

The material from the eight Hawaiian green turtles which you shipped on 11 May 1978 arrived in excellent condition. I want to thank you for your cooperation in making these specimens available to my research program.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

cc: Homer O. Potter

May 30, 1978

Dr. James C. Cato
Economist
Route 1, Box 273
Newberry, Florida 32669

Dear Dr. Cato:

Since May of 1974 the commercial exploitation of green turtles has been legally prohibited in the Hawaiian Islands. The amount taken for this turtle in the calendar year 1973 was 19,131 lbs.

Concerning your inquiry about the Japanese trade in hawksbills, you may be interested to learn that I have recently had a 1973 report on this subject translated from Japanese into English. The report was prepared by the Japanese Tortoise Shell Association and is entitled PRELIMINARY REPORT ON THE HAWKBILL TURTLE IN INDONESIA, PHILIPPINES, MALAYSIA AND SINGAPORE. The duplication costs are \$8.00. If you so desire, I would be willing to send you a copy for this amount.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

May 30, 1978

Mr. Richard M. Parsons, Chief
Federal Wildlife Permit Office
and U. S. Management Authority
U. S. Department of the Interior
Fish and Wildlife Service
Washington, D. C. 20240

Dear Mr. Parsons:

This is in response to your letter of 10 May 1978 (FWS/WFO TRE 1-04) requesting information on the proper listing for species in appendices to the Convention on International Trade in Endangered Species. As referenced in Dr. F. Wayne King's letter of 6 April 1978, my comments will pertain to the following taxa.

Cheloniidae (Caretta caretta, Chelonia mydas, Eretmochelys imbricata, Lepidochelys kempi, and Lepidochelys olivacea)

Dermochelidae (Dermochelys coriacea)

All of these sea turtles are currently listed in Appendix I, with the recommendation (Federal Register, 43, 86: 19176-19191) that they remain in Appendix I due to their adverse biological and trade status. I am in agreement with this conclusion and fully support retention of the Appendix I listing.

Phocidae (Monachus schauinslandii)

The Hawaiian monk seal is currently listed in Appendix I, with the Federal Register recommendation that it remain in Appendix I. The biological status of this species is by no means secure, however, in my opinion it is highly unlikely that any trade will ever take place. Furthermore, the species is fully protected under State and Federal laws. You may therefore want to consider changing the present Appendix I designation to what would appear to be a more appropriate listing in Appendix II.

I appreciate having the opportunity to comment on these matters. Please feel free to contact me if I can be of further assistance.

Sincerely,

George H. Balazs,
Assistant Marine Biologist and
Member, IUCN Marine Turtle Group

mk
cc: Dr. R. L. Jachowski
bcc: F. Wayne King

May 30, 1978

The Honorable George Smith
Minister of Agriculture and Fisheries
P. O. Box N3028
Nassau, Bahamas

Dear Minister Smith:

Recently it has been brought to my attention that your government is considering regulatory measures that would give increased protection to the hawksbill sea turtle, Eretmochelys imbricata. Although I am not fully aware of the status of the hawksbill within your national boundaries, I am nevertheless familiar with the serious survival situation which confronts this species throughout most of the Caribbean. Similar problems also exist in many areas of the Pacific where hawksbills are overexploited to meet the demands of the Japanese tortoise-shell and stuffed curio trade.

It may be helpful for you to learn that in May of 1974 the State of Hawaii, Division of Fish and Game, enacted a law that provides full protection for hawksbills in waters of the Hawaiian Islands. Some hawksbills continue to be killed accidental to other fishing efforts (i.e. gillnets), however it is my belief that the conservation status has improved considerably. I respectfully encourage you to give full consideration to increased protection for your own hawksbill population.

Please feel free to contact me if there is any way I can be of assistance.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

May 26, 1978

Editor
The Drum and Croaker
New England Aquarium
Central Wharf
Boston, Massachusetts 02110

Dear Sir:

I would greatly appreciate being placed on the mailing list for "The Drum and Croaker." Thank you very much for your assistance in this matter.

Sincerely,

George H. Balazs
Asst. Marine Biologist

GHB:md

May 26, 1978

Dr. Murray D. Dailey
California State University
925 Harbor Plaza
P. O. Box 570
Long Beach, CA 90801

Dear Dr. Dailey:

Skip Naftel of the EASY RIDER has told me of your interests in the parasites of Hawaiian monk seals and green sea turtles. It is regrettable that Causey Whittow and I were not able to meet with you during your recent visit to Hawaii. Perhaps there will be opportunities for us to collaborate on matters of common interest during the coming months and years.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:MB

May 26, 1978

Mr. Stanley Freedden
Goddard Space Flight Center
Greenbelt, MD 20771

Dear Mr. Freedden:

On 11 May 1978 I had the opportunity to talk with Mr. Frank Beatty of EROS (National Space Technology Laboratories, Mississippi) concerning the existence of LANDSAT or other imagery of the northwestern Hawaiian islands and associated reefs. We were both quite surprised to learn that such material has apparently not been accumulated. The locations that I am referring to extend from
and include Nihoa, Necker, French Frigate Shoals, Gardner Pinnacles, Maro Reef, Laysan, Lisianski, Pearl and Hermes Reef, Midway, and Kure. There is presently considerable interest within the State of Hawaii in the resources and wilderness values of these relatively remote and undisturbed areas. I therefore wonder if it would be possible to obtain such photographic material using LANDSAT C. My own particular interests in these areas concern life history and migration studies of green sea turtles.

Thank you in advance for your assistance in this matter.

Sincerely,

George H. Balazs
Asst. Marine Biologist

GHB:md

May 25, 1978

Dr. L. G. Eldredge
Professor of Biology
University of Guam
Marine Laboratory
P. O. Box EK
Agana, Guam 96910

Dear Dr. Eldredge:

I would greatly appreciate receiving a copy of your publication entitled A Natural History of Maug, Northern Mariana Islands (Technical Report No. 43, Univ. Guam Marine Lab.).

Thank you for your assistance in this matter.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHE:ec

May 24, 1978

Dr. Thomas Lovejoy
World Wildlife Fund, U.S.A.
1601 Connecticut Avenue, N.W.
Suite 800
Washington, D. C. 20009

Dear Dr. Lovejoy:

The trip to Washington, D. C. which I mentioned to you in my letter of March 31 unfortunately did not take place. The trip was to have been in conjunction with a special meeting on marine turtle convened by the National Marine Fisheries Service. Instead of Washington, D. C., the meeting was held at the NASA facility near Bay St. Louis, Mississippi. Following this event, I had to proceed directly to an ad hoc IUCN meeting on turtles in Toronto.

The present lack of knowledge on the growth rates of marine turtles and their ages at maturity was discussed in some detail at our IUCN meeting. Further, the need and importance of such knowledge was unanimously agreed upon by the group. Taking this into consideration, I wonder if you could make some inquiries in order to determine the status and whereabouts of my project proposal on this subject which was submitted during May 1977.

Thank you in advance for your assistance in this matter.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

UNIVERSITY OF HAWAII AT MANOA
HAWAII INSTITUTE OF MARINE BIOLOGY
P. O. BOX 1346
KANELOHE, HAWAII 96744

May 23, 1978

Dr. Itaru Uchida
Director
Himeji City Aquarium
Tagarayama, Himeji City
670, JAPAN

Dear Itaru:

Today I returned from an ad hoc meeting in Toronto which was held to formulate an action plan for the management and conservation of sea turtles. One of the more important topics of discussion was the international trade by the Japanese in hawksbills. In order to have up-to-date information on this situation, I would be most appreciative if you would send me any importation statistics on tortoise-shell which you can obtain for the years 1977 and 1978.

Hopefully your work is going well, and you received the Loggerhead newspaper article which I mailed to you several weeks ago.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

UNIVERSITY OF HAWAII AT MANOA
HAWAII INSTITUTE OF MARINE BIOLOGY
P. O. BOX 1346
KANEOHE, HAWAII 96744

May 23, 1978

Mr. R. H. James
Principal Fishery Officer
Ministry of Natural Resources
Honiara, Solomon Islands

Dear Dick:

Today I returned from the ad hoc IUCN meeting on marine turtles which was convened in Toronto. As promised during your visit to Hawaii, I brought up the topic of the "lost" Solomon Islands turtle proposal. Unfortunately, although considerable concern was expressed by the six participants, no explanations could be given due to the fact that representatives from IUCN and WWF were unable to attend the meeting. If it is any consolation, there was apparently another proposal dealing with turtles submitted by P-NC that had a similar fate. I would suggest that you write one last diplomatic letter to IUCN Morges (copied to Hrosovsky at the IUCN Newsletter, Toronto) requesting information on the status of your proposal.

Hopefully we will meet again in the not-too-distant future.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

May 23, 1978

Dr. R. Grandperrin
Fisheries Adviser
South Pacific Commission
Noumea CEDEX
New Caledonia

Dear Rene:

Today I returned from an ad hoc meeting of the IUCN Marine Turtle Group which was convened in Toronto to formulate an action plan for sea turtle management and conservation. One of the many topics of discussion was the desirability and possibility of establishing certain uninhabited Pacific islands as turtle reserves. In this context, I have noted with considerable interest the literature reference:

Elliott, H. F. I. (1973) Pacific oceanic islands for science recommended for designation as islands for science. pp. 287-305 (part 2). In, Regional Symposium on Conservation of Nature - Reefs and Lagoons. Proceedings and Papers. South Pacific Commission, Noumea.

I would be most appreciative if you would send me a copy of this particular section of the proceedings when your time permits. Many thanks in advance for your assistance in this matter.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md