HIMB G.H. BALAZS

University of Hawaii at Manoa

Hawaii Institute of Marine Biology

MEMORANDUM

January 19, 1979

To: Office of the Marine Affairs Coordinator

From: George H. Balazs-

Subject: Matching MAC funds for the green sea gurtle Sea Grant proposal

(1979-80) as a compopent of the Northwestern Hawaiian Islands

Commercial Fisheries Investigation.

For the forseeable future, green sea turtles in the Northwestern Hawaiian Islands are likely to continue to be viewed as a nonconsumable wildlife resource associated closely with the protected areas of the National Wildlife Refuge. Along with the monk seals and numerous seabird species, the turtles within that portion of our island chain are not likely to provide direct and tangible economic benefits for man. Nevertheless, their existence and well being are of value and importance to a large segment of the citizenry of Hawaii and the nation. Although the form of this value certainly varies among individuals, it is usually described in terms of aesthetics, America's wildlife heritage, diversity of genetic resources, or biotic components necessary to maintain the healthy ecosystem upon which man is dependent. We are all in agreement that the orderly and rational development of any commercial fisheries by the State in the Northwestern Hawaiian Islands must take place with a minimum of adverse impact to these valued, but noneconomic, wildlife species. It is therefore within this context that the management-oriented life history study of the green turtle has been incorporated as a key component of the Sea Grant NHI Fisheries Investigation. I have attempted to make these points clear in my proposal narrative, along with other relevant and clarifying information.

There is another point concerning the research of Hawaiian sea turtles which I believe may be worthwhile to emphasize at this time. With financial support from the MAC office, it has been possible to develop within Hawaii an authoritative source of information on sea turtles that can be drawn upon internationally, but most importantly by island nations of the Pacific. This acknowledged expertise can be demonstrated in part by my honorary consultancy assignment with the South Pacific Commission (see Dr. Mahony's letter of 7-8-77 to Mr. Kono), and my appointment as a full member of the Marine Turtle Specialist Group of the International Union for the Conservation of Nature (IUCN - Switzerland). Hawaii is already recognized for providing expertise from a broad spectrum of marine

Memo to Marine Affairs Coordinator's Office January 19, 1979 Page 2

disciplines, and it is an additional credit that the biology and ecology of sea turtles can now be added to the list.

I appreciate having the opportunity to clarify and confirm some of these points relative to my work.

GHB:md



University of Hawaii at Manoa

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

February 12, 1979

Dr. Nicholas Mrosovsky
Department of Zoology
Ramsay Wright Zoological Laboratories
University of Toronto
25 Harbord Street
Toronto M5S 1A1
Ontario, Canada

Dear Nicholas:

I will deliver your letter to Sir Peter as requested, however I cannot help but feel that you are placing me in somewhat of an awkward position. It would have been more appropriate for you to send this directly to him, since the question of your title is, at this point, a matter over which I feel I have no control or influence. By having me personally deliver the letter (copied to me), there will almost certainly be some conversation along these lines that will prove uncomfortable. You are indeed correct in stating that you can take me at my word when I told you that I would be quite happy with some system involving the three of us. When the newly created position of Deputy Chairman was offered to me, I specifically asked on two occasions if some sort of three-way chairmenship might not be established. As I subsequently related to you over the telephone, the response was completely unfavorable. It was stated to me that the decisions in this matter had been made, and that the course of action would not be changed even if I decided not to accept the position. I also told you that I had extended myself on your behalf as much as possible and appropriate under the circumstances. Please understand that, in my opinion, when one is asked to fill an honorary position, such as I have been asked, one does not start off by pressuring the appointing agency as to who else to appoint and to what position. To do so would be undiplomatic and something less than good manners.

There will, in fact, be a three-way leadership of sorts to the Group, comprised of Chairman, Deputy Chairman, and Editor of the News-letter. I concur with your statement that the copy machine can be set at three almost as easily as at two, thereby providing the Editor with full information. However, some of your other comments have caused

Dr. Nicholas Mrosovsky February 12, 1979 Page 2

questions to surface. You mentioned that I may not have seen or been aware of all the sea turtle conservation work in which you have been involved as Co-chairman. This should not be the case. With the Group's present structure of only six regular members, all material and activities should have been made available to each member for input. If the copy machine can be set at three, it could have been set at six. With respect to grant proposals which you have now mentioned several times, no copies have ever been sent to me for review or internal comment. In short, it now appears to me that, as one of the six regular Group members, I have received relatively little copied information on what has been transpiring. An important example would be the arrangements, planning and decision to have an international meeting in Malaysia. Except for our very general group discussions in Toronto, there was no request for input on my part. With the exception of Siow, were any of the other regular members closely consulted on this matter? Further, were there any consultations with respect to the decision to give Siow what appears to be complete control over what papers from within Malaysia are presented at the conference?

It is not really my intention to dwell on or dredge up the past, but rather to move ahead working in whatever way possible to strengthen the survival status of sea turtles. I am certain that you have no question as to my personal commitment to this goal. I have worked effectively in the past without titles and, if need be, I will work without titles again in the future. In the meantime, as Deputy Chairman I intend to use whatever prestige and status the title affords to promote the same goal. This has, of course, been my decision, and I fully realize that values differ. If you decide to withdraw as Editor due to the absence of an additional title, I will of course be disappointed, but nevertheless capable of partially understanding your difficult situation.

Before closing, I should mention something about the growth articles in the last newsletter. I believe I am justified in saying that, as Editor, it would have been beneficial to set a deadline for receiving the articles. As near as I can determine, my article remained in limbo for at least three months waiting for Limpus to send in his. This was not right, particularly in view of the fact that during this time you were presumably corresponding with Limpus about the possibilities of holding a meeting in Australia.

I still do not know at this point if I will be able to attend the Malaysian meeting. There are several problems, one of which is travel funds. Nevertheless I do hope that in the not too distant future we will have the opportunity to discuss many of these and other matters in person. Telephone calls tend to be too expensive for extended conversations. Hopefully on the way to or return from Malaysia you will be able to visit with us for a few days.

Sincerely,

George H. Balazs

Assistant Marine Biologist

GHB:md Encl.

January 26, 1979

Sir Peter Scott The New Grounds Slimbridge Gloucester GL2 7BT United Kingdom

Dear Sir Peter:

Thank you for your cordial letter of 12 January. Your words of encouragement are certainly appreciated. As Deputy Chairman, I will devote my best effort toward furthering the conservation status of sea turtles.

At the present time, my field research schedule for February is unsettled due to problems of transportation to our Leeward Islands. It would be a great pleasure to meet you and your wife when passing through Honolulu. At that time, please try to telephone me at 247-6631 (days - Kaneohe Laboratory) or 395-6409 (evenings - home). If this is not possible due to your demanding travel schedule, I will contact you in Maui provided I am not in the field.

Best regards and Aloha,

George H. Balazs Assistant Marine Biologist February 9, 1979

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

Dear Dr. Jones:

Thank you for your telephone call on 26 January concerning our note on the tiger shark seen feeding on a monk seal. Except for some minor editorial changes, the manuscript that I sent you on 5 December 1978 will be published in either the March or April issue of 'Elspaio.

I would like to call to your attention a letter that I wrote to Dr. Twiss on 11 September 1978 (copy attached) concerning the need for the appointment of a monk seal recovery team. I wonder if your office ever received this letter, and if positive action is now being taken to appoint such a team in the immediate future? Your early response to this inquiry would be greatly appreciated.

You may be interested to learn that the March 1988 "Bibliography of the Hawaiian monk saal" which I co-authored with Dr. G. C. Whittow is now being republished by the University of Hawaii Sea Grant College Program. We have taken this opportunity to update the references through January 1979. I will send your office a copy when it is published.

Sincerely,

George H. Balazs Assistant Marine Biologist

GHB:md

Encl.

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 Hawsii, 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.

mlc.



University of Hawaii at Manoa

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

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:

- Mr. Brent Giezentanner, FWS
- Mr. Eugene Kridler, FWS
- Captain Gary Naftel, Easy Rider
- 4. Mr. John Naughton, NMFS
- Dr. Edward Shallenberger, Sea Life Park, Inc.
- 6. Mr. Richard Shomura, NMFS
- Dr. Leighton Taylor, University of Hawaii
- 8. Mr. Ronald Walker, State Division of Fish and Game
- 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

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

AN EQUAL OPPORTUNITY EMPLOYER

February 8, 1979

Mr. Mark Wexler National Wildlife 225 E. Michigan Milwaukee, Wisconsin 53202

Dear Mark:

Many thanks for your letter of 1 February. As I previously mentioned, I would be happy to cooperate with you in whatever way feasible to do a story on some aspect of Hawaiian wildlife.

With the exception of Midway, travel to the Leeward Islands is difficult, often unpredictable, and usually involves spending 2-3 weeks in the field. My schedule for this year is very unsettled for the present time. I will almost certainly be making some trips on the 85' vessel Easy Bider, but this will be in conjunction with charter funds provided by other projects. Quite simply, I am underfunded and must frequently rely on travel paid for by others. This as complicated by limited sleeping accommodations on the boat.

At this date, I would say that the only positive trip we could plan would be to Midway and Kure in a Coast Guard C-130. This might include overflights of other islands on the way out. I should mention, however, that the breeding abundance and richness of the wildlife declines rapidly after June.

Your thought on doing a story on a particular controversy has considerable potential. Two possibilities would be 1) the jurisdictional problem between the State and the Fish and Wildlife Service in the Leeward Islands; and 2) the Navy's use of the seabird island of Kaula as a bomb target. I have enclosed various items on these growing controversies that you may find interesting.

Perhaps we can discuss these matters over the takephone in the not too distant future. You wouldn't by any chance be going to the CITES convention in Costa Rica during March?

Sincerely,

George H. Balazs Assistant Marine Biologist

GHB:md

Encl.

February 8, 1979

To: Rose Pfund Karen Tanoue

Sea Grant Publications

From: George H. Balazs

Enclosed is the revised and updated Hawaiian monk seal bibliography. that you expressed an interest in republishing. As requested, I have discussed this matter with HIME Director John Caperon and he has granted approval. After the manuscript is retyped, please give Dr. Whittow and me the opportunity to proofread it before publication. Also, we would each like to receive at least 20 copies of the final product for our own distribution. If you decide that you would like to use a photograph of a monk seal on the cover, please contact me and I will supply the necessary material.

GHB : md

Encl.

February 7, 1979

Dr. Archie Carr Department of Zoology 223 Bartram Hall University of Florida Gainesville, Florida 32611

Dear Archie:

I have received a cordial letter from Sir Peter Scott indicating that my formal appointment as Deputy Chairman will be forthcoming. Sir Peter will be in Hawaii for several days later this month and we have made some tentative plans to visit with one another. Hopefully this will materialize.

I want to make you aware of several ideas/projects I have been pondering that could advance the conservation of sea turtles and possibly improve the Turtle Group. Your opinions on the following would therefore be appreciated. I hope there will be ample opportunity for us to discuss these and other topics in detail at the Costa Rica meeting.

- Restructure the Turtle Group to a single class of membership all members selected should be "regular" members.
- 2) Initiate a policy whereby each Turtle Group member will automatically distribute to other members a reprint of new publications authored. You recently did this with your American Museum article, but most members unfortunately do not take the initiative.
- 3) Appoint one or more of your very capable and active lady graduate students to the Turtle Group.
- 4) Assign someone the task of preparing, printing and distributing the conservation brochure that was mandated at our 1974 ad hoc meetings in Miami and Cayman.
- 5) Initiate contact with appropriate individuals in mainland China in order to gain information on nesting and foraging turtles in the South China Sea. You may recall that I tried this several years ago, but did not receive a response. With the newly-found national friendship, perhaps some success could now be obtained. The Chairman would be the appropriate person to make such an inquiry.

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

February 8, 1979

Mrs. Jane Selley College of Biological Science University of Guelph Guelph, Ontario Canada NLG 2W1

Dear Mrs. Selley:

I would greatly appreciate receiving copies of any printed material that has resulted from the First International Conference on the Mediterranean Monk Seal.

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

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
6 February 1979

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

Dear Dr. Pisani:

The enclosed manuscript is being submitted for consideration as an article in HERPETOLOGICAL REVIEW.

Sincerely

George H. Balazs

Assastant Marine Biologist

February 5, 1979

Ms. Jaan Caton U. S. Fish and Wildlife Service (WPO) Washington, D. C. 20240

Dear Ms. Caton:

I would greatly appreciate receiving any information that may be available at this time concerning proposed changes to the Endangered Species Treaty. I am particularly interested in the proposed changes dealing with sea turtles.

Thank you in advance for your assistance in this matter.

Sincerely,

George H. Balazs Assistant Marine Biologist

GHB: rad

February 5, 1979

Ms. Joyce L. Eden
Research Assistant
National Sea Grant Depository
Pell Libbary Building
URI, Narragansett Bay Campus
Narragansett, RI 02882

Dear Ms. Eden:

I would greatly appreciate receiving the following publications on loan.

ORESU-Z-76-009 ORESU-Z-75-073 RIU-Z-72-074

Thank you in advance for your assistance.

Sincerely,

George H. Balezs Assistant Marine Biologist

GHB:md

February 5, 1979

Ms. Nancy Bray
Department of Zoology
Biological Sciences Building
University of Rhode Island
Kingston, Rhode Island 02881

Dear Mancy:

During your visit to our laboratory on 17 April 1978, you described a report that was in preparation covering the results of your statistical analysis of nesting turtles and egg harvesting in Surinam. I recall that you indicated that the data showed a very definite decrease in the population. If your report has now been completed and is available, I would greatly appreciate receiving a copy. I realize that your work and travel in this project was privately financed by Cayman Turtle Farm, however this support should not preclude the distribution of such potentially important information. However, if you would rather not send your report out directly, perhaps you could provide me with the title and date so that a formal request can be made to the Cayman Turtle Farm.

I appreciated receiving the various other copied reports which you sent several weeks after returning to Rhode Island.

Sincerely,

GEORGE H. BALAZS Assistant Marine Biologist

GHB:ec

bcc: Archie Carr Wayne King



University of Hawaii at Manoa

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

5 February 1979

Dallas-

Enclosed is the Dillingham Tide Calendar that I promised to send you. Hope you and your family enjoy it.

I have also enclosed a supply of turtle sighting report forms for Kure, in the event that you get up there later this month. Please remember that the green turtle is now listed as "threatened" under provisions of the US Endangered Species Act of 1973. This means that you cannot capture the critters except by permit for scientific purposes. However, any observations/censuses that you may

make from a distance would be legal, and could useful information to my research project.

I had a very productive and pleasant two day visit to Kure just last week.

Best regards,

George Balaza

UNIVERSITY OF HAWAII Hawaii Institute of Marine Biology Coconut Island . P. O. Box 1346 . Kaneohe, Hawaii 9674

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 Prigate 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 fucident that should be properly recorded. The important points are:

- 1. month and year
- location (Tern Island?)
 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 1979 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

January 23, 1979 Dr. S. C. Litwin Department of Zoology University of Rhode Island Kingston, Rhode Island 02881 Dear Dr. Litwin: If copies are still available, I would greatly appreciate receiving a reprint of your article entitled "Loggerhead sea turtles of Jekyll Island, Georgia: A report on conservation." Sincerely, GEORGE H. BALAZS Assistant Marine Biologist GHB:ec

January 23, 1979

Dr. Richard D. Worthington Current Literature Department of Biological Sciences The University of Texas El Paso, Texas 79968

Dear Dr. Worthington:

Enclosed are two articles from journals of "limited distribution" which you might want to list in a forthcoming issue of <u>Herpetological Review</u>.

Sincerely,

George H. Balazs Assistant Marine Biologist

milc

January 23, 1979

Dr. C. L. Fntema Department of Anatomy Upstate Medical Center Syracuse, New York 13210

Dear Dr. Yntema:

If copies are still available, I would greatly appreciate receiving a reprint of your article entitled "Incubation times for eggs of the turtle Chelydra serpentina at various temperatures."

Sincerely,

George H. Balazs Assistant Marine Biologist

mk.

January 22, 1979

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

Dear Sylvia:

Thank you for your letter of 16 January along with the prompt refund check. I am pleased that the samples arrived in excellent condition.

Sincerely,

GEORGE H. BALAZS Assistant Marine Biologist

GHB:ec

January 22, 1979

Ms. Anne Meylan Department of Zoology 223 Bartram Hall University of Florida Gainesville, Florida 32611

Dear Anne:

Thank you for your communication of 8 December which included a complete copy of your M.S. thesis. This is very much appreciated as it will be a valuable addition to my sea turtle reference library. In response to your request for critical comments, I made several minor notes while reading through the text. These are summarized as follows:

Page 1: Do we really have data supporting a pelagic existence that only lasts for roughly one year? At least for the Hawaiian Islands, it now seems likely that this period may be considerably more than one year (see forthcoming issue of IUCN/SSC Turtle Newsletter).

Page 20: Carrying the float out into waist-deep water at night was indeed an act of bravery. At French Frigate Shoals, I have on several occasions seen three meter long tiger sharks patrolling the shoreline in water this deep.

Page 23: Have turtle parts been recovered from the stomachs of bull or any other sharks caught at Tortuguero?

Page 24: Can you give me a general idea of what percentage of the turtles (remigrants) have conspicuous tag holes?

Pages 95-96: Might it not be possible that the considerable separation between nests of a season for some turtles is actually due to an unfavorable nesting (tagging) experience (see pages 20 and 97)?

Page 110: A larger number of nonnesting emergences by remigrants could also reflect unfavorable nesting/tagging experience "remembered" from previous nesting seasons(?).

Page 115: It should be noted that high-energy surf does not necessary preclude algal plant growth. In fact, certain algae of the genera Codium, Hypnes and

Ms. Anne Meylan January 22, 1979 Pterocladium eaten by Hawaiian Chelonia (and other populations, I suspect) actually thrive in high-energy areas. The important parameter here, I believe, is suitable bottom substrate for the plants to grow on. Page 115: "Mortimer (1976) confirmed the widespread belief (my emphasis) that Thalassia . . . is by far the most important component of the diet of turtles in the Western Caribbean." Very well stated. In reviewing the literature on food sources, I was surprised at the lack of hard data. I am glad that she has confirmed this belief. Hopefully at some point I can get a copy of her thesis also. Page 118: On a number of occasions I have also found plastic in Chelonia stomachs. I do not, however, believe that ingestion was accidental. Some of our turtles frequently eat physalia and other drift invertebrates. To me it seems likely that the turtles are mistaking the floating plastic for such animals. Page 121: I have also documented lengthy migrations well against prevailing winds and currents (Balazs, 1976 Biological Conservation - Green turtle migrations in the Hawaiian Archipelago). These comments are only meant to be helpful as, overall, you have in my opinion certainly carried out excellent research that resulted in a quality thesis. Hopefully we will have the opportunity to meet in person at some future date and discuss research and conservation matters of common interest. Sincerely, GEORGE H. BALAZS Assistant Marine Biologist GHB:ec

To: Office of the Marine Affairs Coordinator

From: George H. Balazs

Subject: Matching MAC funds for the green sea turtle Sea Grant proposal (1979-80) as a component of the Northwestern Hawaiian Islands

Commercial Fisheries Investigation.

For the forseeable future, green sea turtles in the Northwestern Hawaiian Islands are likely to continue to be viewed as a nonconsumable wildlife resource associated closely with the protected areas of the National Wildlife Refuge. Along with the monk seals and numerous deabird species, the turtles within that portion of our island chain are not likely to provide direct and tangible economic benefits for man. Nevertheless, their existence and well being are of value and importance to a large segment of the citizenry of Hawaii and the nation. Although the form of this value certainly varies among individuals, it is usually described in terms of seathetics, America's wildlife heritage, diversity of genetic resources, or biotic components necessary to maintain the healthy ecosystem upon which man is dependent. We are all in agreement that the orderly and rational development of any commercial fisheries by the State in the Northwestern Hawaiian Islands must take place with a minimum of adverse impact to these valued, but noneconomic, wildlife species. It is therewore within this context that the management-oriented life history study of the green turtle has been incorporated as a key component of the Sea Grant NHI Fisheries Investigation. I have attempted to make these points clear in my proposal narrative, along with other relevant and clarifying information.

There is another point concerning the research of Hawaiian seasturtles which I believe may be worthwhile to emphasize at this time. With financial support from the MAC office, it has been possible to develop within Hawaii an authoritative source of information on sea turtles that can be drawn upon internationally, but most importantly by island nations of the Pacific. This acknowledged expertise can be demonstrated in part by my honorary consultancy assignment with the South Pacific Commission (see Dr. Mahony's letter of 7-8-77 to Mr. Kono), and my appointment as a full member of the Marine Turtle Specialist Group of the International Union for the Conservation of Nature (IUCN - Switzerland). Hawaii is already recognized for providing expertise from a broad spectrum of marine

Memo to Marine Affairs Coordinator's Office January 19, 1979 Page 2

disciplines, and it is an additional credit that the biology and ecology of sea turtles can now be added to the list.

I appreciate having the opportunity to clarify and confirm some of these points relative to my work.

GHB:md

TO: Mr. Richard Shomura, Director NMFS, Honolulu Laboratory

FROM: George H. Balaza

Based on our discussions of Tuesday, January 16th, I thought it might be useful to summarize for your reference some of the subject areas that, in my opinion, should be considered for support when NMFS sea turtle funds become available for the Pacific.

Hawaiian Islands

- 1) Travel to forthcoming meetings and workshops;
- Development of a technique to determine age of turtles from bones or laminae;
- Long distance satellite telemetry (in collaboration with NMFS-NSTL lab);
- 4) Supplemental support for life history study of Hawaiian green turtle population, Northwestern Hawaiian Islands' emphasis - research assistants, travel to study areas, and salary for Balazs (should Sea Grant funding not materialize for fiscal year starting June 1979).
- 5) Compilation of knowledge on tag durability and success.

Other Pacific areas

- 1) American Samos stock assessment/tagging (Rose Atoll emphasis);
- 2) Assistance/consultation for Western Samoa (hawksbill hatchery);
- Wake Island stock assessment/tagging;
- 4) Canton Island stock assessment/tagging (before departure of U.S. Air Force support capabilities);
- 5) Palmyra stock assessment/tagging;
- 6) Stock assessment/tagging at select areas in the Trust Territory (Helen's Island (?); Survey of native dependencies (?).

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

Dear CDR Kelley:

Thank you for your letter of 10 January concerning my request for information on the possible sightings of sea turtles at Kaula. My inquiry referred entirely to turtles foraging in the inshore waters, and you are of course correct in stating that it is highly unlikely that any nesting could take place. However, it should be noted that the presence of a steep, rocky coastline does not preclude acceptable foraging habitat. For instance, the precipitous coastlines of Necker Island (23°35'N, 164°42'W) and the Kau District (19°10'N, 155°30'W) of the Island of Hawaii both host resident concentrations of green turtles.

Incidentally, I never did hear from the environmental consulting firm which you previously mentioned would be contacting me concerning my Kahoolawe turtle report forwarded on 13 November 1978.

Sinceraly,

GEORGE H. BALAZS Assistant Marine Biologist

GHB:ec

Dr. John E. Byrne Coordinator, Pacific Island Studies Fish and Wildlife Service Lloyd 500 Building, Suite 1692 500 N. E. Multnomah Street Portland, Oregon 97232

Dear Dr. Byrne:

I would greatly appreciate receiving a copy of the report entitled "Literature review and synthesis of information on Pacific island ecosystems."

Sincerely,

George H. Balazs Assistant Marine Biologist

mk

Mr. Thomas Ritchie Chief Naturalist M.S. Lindblad EXPLORER c/o Lindblad Travel, Inc. 133 East 55th Street New York, N. Y. 19022

Dear Mr. Ritchie:

Recently Mr. Brent Giezentanner, Manager for Hawaiian and Pacific Islands National Wildlife Refuges, informed me of your observations of sea turtles while visiting Rose Atoll. Although your observations were brief, they nevertheless provide some further insight into this little known location for nesting and foraging turtles.

I would greatly appreciate learning of any additional observations of sea turtles which you may make during the course of your travels.

Best regards for the New Year.

Sincerely,

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

GHB:md

Dr. Roger Conant Wood Faculty of Natural Science and Mathematics Stockton State College Pomona, New Jersey 08240

Dear Dr. Wood:

If copies are still available, I would greatly appreciate receiving a reprint of your 1976 article entitled "Stupendemys geographicus, the world's largest turtle" which appeared in Breviora. I would also like to receive reprints of any articles you may have authored dealing with fossil sea turtles.

Thank you for your assistance in this matter.

Sincerely,

G. H. Balazs Assistant Marine Biologist

GHB:md

Dr. Eugene Gaffney
Department of Vertebrate Paleontology
The American Museum of Natural History
Central Park West at 79th Street
New York, N. Y. 10024

Dear Mr. Gaffney:

I would greatly appreciate receiving reprints of any articles you may have authored dealing with fossil sea turtles.

Thank you for your assistance.

Sincerely,

George H. Balazs Assistant Marine Biologist

GRB:md

January 15, 1979 Ms. Laura Tangley Defenders of Wildlife 1244 Mineteenth Street, NW Washington, D. C. 20036 Dear Ms. Tangley: Many thanks for your informative letter of 8 January concerning the international conference on sea turtles and the forthcoming planning meeting of the steering and scientific committees. I have been aware of these events through telephone conversations with Dr. Wayne King, but nevertheless greatly appreciate your correspondence. It is \$till very uncertain if I will be able to attend the 26 January planning meeting due to the present absence of travel funds. I will notify you if and when this situation changes. I look forward to meeting you in person in November. Sincerely, George H. Balazs Assistant Marine Baologist GHB:md

January 12, 1979

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:

The turtle flesh samples which you requested were sent by air freight on Braniff on 11 January in accordance with the schedule I described to you during our telephone conversation. Hopefully the parcel arrived in good condition with the samples still frozen solid. I look forward to learning of the outcome of your research project.

I have attached a copy of the Braniff shipping receipt, a receipt for the dry ice, and an invoice for personal travel mileage incurred transporting the percel to Honolulu International Airport. I would appreciate receiving a refund for these expenses at the earliest date possible #62.77 707AL

Best regards for the New Year.

Sincerely,

GEORGE H. BALAZS Assistant Marine Biologist

GHB:ec

Encls.

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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

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 27, 1978

Colonel Peter D. Stearns Honolulu District Engineer Army Corps of Engineers Prince Kuhio Pederal 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 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 "ferms" 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. Balazs Assistant Marine Biologist



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

December 21, 1978

LCDR T. C. Kelley Special Assistant for Ecology Pacific Division Naval Facilities Engineering Command (Makalapa, 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. Therehave 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.

2011/11

George H. Balazs // Assistant Marine Biologist

GHB:md

Enclosure

LCDR T. C. Kelley Special Assistant for Ecology Pacific Division Naval Facilities Engineering Command (Makalaga, 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 have 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 wegards for the New Year.

Sincerely,

George H. Balazs Assistant Marine Biologist

GHB:md

Enclosure

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, injuried, 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

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

mle

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

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 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

GHB:md

Enclosures

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

GHB:md

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

December 18, 1978

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

Dear Mr. Chatenay:

Your letter of 5 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. Mone 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

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

GHB:md

Enclosures

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

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

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. Bass, it was indicated that they would not be able to manufacture any more inconel turtle tags unless they had an extremaly large order, perhaps 20,000 tags or more. By copy of this letter, I will ask Mr. Hass 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

December 6, 1978

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 dolely as "strap-like fiberous 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.

1-

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

Dennis, I do hope you will write up the <u>Codium</u> 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,

George H. Balazs Assistant Marine Biologist

mk

December 6, 1978

Dr. Clayton E. Ray Research Curator Department of Paleobiology National Museum of National History Smithsnnsian 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 srticles 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 Merine Biologist

GHB:ec

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

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,

CEORGE H. BALAZS Assistant Marine Biologist

GHB:ec

Enclosure



Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW
1 December 1978

Dear Dr. Lovejoy:

Enclosed is a recent article which relates in part to my research of the Hawaiian green turtle. I thought that perhaps you might find this write-up to be interesting and informative with respect to our overall Hawaiian wildlife situation.

Sinderely,

George H. Balazs





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

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

Hawaii Institute of Marine Biology

MEMORANDUM

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:

- 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 the 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

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 "subsistance" 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

TO: Karen Tanoue Sea Grant Publications Office

FROM: George H. Balazs
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

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

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. Balazs Asst. Marine Biologist

GHBIMd

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

Dear Dr. Joses:

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

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

Mr. Doyle Gates
Area Administrator
Western Pacific Program Office
National Marine Fisheries Gervice
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

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: MG

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

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



University of Hawaii at Manoa

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

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.

George H. Balazs

Assistant Marine Biologist

GHB:md



University of Hawaii at Manoa

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

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:

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Sincerely,

George W. Balazs

Assistant Marine Biologist

GHB:md

Enclosure

D/1/1.22

PHS/ehf

The Permanent Secretary, Ministry of Fisheries, Male,

Republic of Haldives.

21 September 1978

Dear Sir,

We have recently received callable reports on the continuous capture and sloughter of marine tartles by the crews of Japanese tuna fishing fleets stationed in the territorial unters of the Maldives, and on the subsequent sale of counted specimens of these turtles in Japan. As the species concerned (mainly Marksbill and Green turtles) are listed as endangered on Appendix I of the above Convention, the matter is of great concern to us.

It is my understanding that the capture of turties and tortoises is completely probbited in Male's Atoll; that the capture of turties less than 2% feet and of tortoises less than 2 feet is probibited throughout the Maldives; and that there is also a ban on export of all marine turtles from the Maldives. The legislative terms concerned should certainly be brought to the attention of foreign fishing fleets operating in parine areas within the jurisdiction of the Republic of Maldives, in order to ensure that national legislation is respected and contraventions prosecuted.

Accession to the Convention by the Republic of Mildives would greatly strengthen international trade controls in this area. Enclosed for your information is a copy of the note regarding the forthcoming second session of the Contracting Parties to the Convention (to be held at San José, Costa Rica, from 19 to 30 March 1979) which was transmitted to your Government on 13 June 1978. Please lat us know if we can be of any further assistance.

Yours faithfully,

Peter H. Sand 5 Secretary General

E.B. Baysinger

b.c.c. Th. Hoffmann

J. Burton

J. Frazier

W. King / Chew Wee-Lek 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 our 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 Carmetti 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.

Sinceraly,

GEORGE H. BALAZS Assistant Marine Biologist

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

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

mlc



University of Hawaii at Manoa

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

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:

- date, time, stage of tide, general weather/sea surface conditions (presence of foam)
- length of time spent by observer engaged in seaward observations (by designated stations, if appropriate)
- 3. locations of turtles sighted (indicated on chart)
- estimated size (upper shell length)
- 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.

George H. Balazs Assistant Marine Biologist

GHB:md

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 GRB:md Enclosures

UNIVERSITY OF HAWAII Hawail Institute of Marine Biology Commot Island . P. O. Box 1346 . Kassohe, Hawaii 967/4

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

MONE 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 efidence 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.

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

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

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 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

November 13, 1978

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

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 Kausi.

Thank you very much for your assistance in this matter.

Sincerely,

George H. Balazs Assistant Marine Biologist

mic

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

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

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

Waikiki Aquarium

2777 Kalakaua Avenue

Honolulu, Hawaii 96815

Phone 923-9741 923-4725

April 23, 1979

To:

George Balazs

From:

Leighton Taylor

Subject: Kemp's ridley sea turtles.

Dear George:

I have reviewed your proposal to insure the survival of the Kemp's ridley sea turtle in captivity. I would like to express my strong support and offer the resources of the Waikiki Aquarium in assisting its implementation. We have had success with maintaining Hawksbills, Loggerheads, and Green Sea Turtles in a variety of sizes of specimens. I feel that our personnel and our water system are satisfactory for the maintenance of Kemp's ridleys. Our budget, although modest, can afford to maintain these animals. If you feel we can be of any help, please call upon us.

Sincerely

October 25, 1978 992-A Awaawaanoa Place Honolulu, HI 96825

Senator Jean King State Capitol

Dear Jean:

Sometime during the fall of 1972 Linda came home one day from Kapiolani Community College and told me about a guest speaker who had visited her political science class. The speaker was a new candidate for the State House who, in Linda's opinion, seemed sincere, intelligent, and dedicated to the improvement of Hawaii's environment. With this high recommendation, I thought it worthwhile to take a close look at the candidate's stand on the various issues and cast my vote accordingly. To my pleasure, I found Linda's evaluation to be correct.

Jean, a lot has happened in your political life since that time six years ago, and all of it has been good for both you and the people of our State. With your election to the second highest office almost assured, we want to wish you much success in your new position. We also want to tell you that it has been an honor and pleasure to have known and supported you.

Aloha and Mahalo

George Bayazs

October 26, 1978

Ms. Patricia Chable
Secretary to the Executive Officer
Survival Service Commission
International Union for Conservation
of Nature and Natural Resources
1110 Morges
Switzerland

Dear Ms. Chable:

Thank you for your letter of 18 October 1978 which requested four additional copies of my publication dealing with the hawksbill industry in Japan. This report is quite bulky, being 73 pages long. I am therefore sending to you under separate cover only one copy of the report with the suggestion that you undertake the reproduction of as many additional copies as you may require. If this is not satisfactory for your needs, please feel free to contact me again.

Sincerely,

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

October 26, 1978

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Assistant Marine Biologist
and Member, IUCN Turtle Group

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Sincerely,

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

CHB:ec

UNIVERSITY OF HAWAII Hawaii Institute of Marine Biology Coconut Island • P. O. Box 1346 • Kansohe, Hawaii 9674

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:

- 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

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 alley 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 Giementanner, Refuge Manager

C. Harrison, Seabird Biologist

October 23, 1978

Mr. William Coops RCUH Varsity Building

Dear Bill:

I want to take this opportunity to offer my personal thanks for the waxcellent 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 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, Cslifornia 95064

Dear Dr. LeBoouf:

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



University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW
16 October 1978

Dear Cliff:

Many thanks for the xeroxed articles which you recently sent me in response to my earlier request. This is very much appreciated. To keep you informed on some of my own work, I have enclosed two short papers which you may find interesting.

At the same time I wrote to you I also dropped at note to Bob DeLong requesting a copy of his report on the May disease trip. Unfortunatley, I have not heard from him. I understand that this report has been distributed, therefore I certainly would appreciate it if you would forward a copy when your time permits.

Hopefully all of your work is going well.

Best regards

George Balazs



University of Hawaii at Manoa

P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744 Cable Address: UNIHAW 13 October 1978

Dear Kenji-

Enclosed is an overview of some of my research results covering the growth rates of immature Hawaiian green turtles.

Recently I returned from a study visit to Maro Reef where, unfortunately, I did not observe any turtles. It is my understanding that your personnel have seen turtles at this location. I have enclosed a xeroxed map of Maro and would greatly appreciate it if the person(s) who made the sightings would mark the location, as well as provide some information of the turtles size and any other significant circumstances.

Thank you in advance for any assistance you can provide.

Sinterply

George H. Balazs

TO: Gilbert K. Oshima Comptroller, RCUH

FROM: George H. Balazs
Assistant Marine Biologist

This is to request your assistance in the following matters:

- Please transfer the payment of salary for my employee, Alan K. H. Kam, 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.

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

Dr. Steven L. Cumbaa Zooarchaeological Identification Center 491 Bank Street National Museum of Natural Sciences Ottawa KIA OM8 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 Suongs. 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 turities 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 mmployment 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

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 Naui News suggestions sounds like a good idea for an interim article. I'm looking forward to receiving the mopy 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 <u>Easy Rider</u>. 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

Hawaii Institute of Marine Biology

MEMORANDUM

October 10, 1978

TO:

Mr. J. Brent Giezentanner

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 <u>Easy Rider</u> 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 Caulerpa 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.

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

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)

Ms. Mary Helfrich c/o 101 Waikahe 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

September 26, 1978

Dr. R. Grandperrin Fisheries Advisor South Pacific Commission Post Box D5 Noumea Cedex, 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



Hawaii Institute of Marine Biology

P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744

Cable Address: UNIHAW

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, HTl 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 19, 1978

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Sincerely,

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

GHB:md



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

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:

- Mr. Brent Giezentanner, FWS
- Mr. Eugene Kridler, FWS
- Captain Gary Naftel, Easy Rider
- 4. Mr. John Naughton, NMFS
- 5. Dr. Edward Shallenberger, Sea Life Park, Inc.
- 6. Mr. Richard Shomura, NMFS
- 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

GEORGE H. BALAZS Assistant Marine Biologist and Enclosures Member, IUCN Turtle Group AN EQUAL OPPORTUNITY EMPLOYER

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

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



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

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



P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744 Cable Address: UNIHAW 7 September 1978

Dear Mr. Howard and Jeanette:
Due to an error in the original Purchase Order number, the check for your services was not issued in advance as I had expected would take place. I have had to write a new Order, therefore it will be necessary for you to send in another statement requesting that payment be made. Your statement should show the number 4029018 for the amount of \$270.00. As we terminated our work at least one day early, the payment should be considered to include the additional food expenses that were incurred.

Sincerely,

George H. Balazs

UNIVERSITY OF HAWAII AT MANOA Hawaii Institute of Marine Biology P.O. Box 1346 - Coconut Island - Kansohe, 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

UNIVERSITY OF HAWAII AT MANOA
Hawaii Institute of Marine Biology
P.O. Box 1346 - Coconut Island - Kaneche, 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

August 30, 1978

Dr. Thomas B. 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



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

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.

George H. Balazs

Assistant Marine Biologist

GHB :md



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

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 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



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

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, Waiohinu Naslehu, 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 thim 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

14 August 1978 Bill- Gerry's assignment to work in my project may now be terminated.

Mahalo

George Balazg

University of Hawaii at Manoa

Hawaii Institute of Marine Biology

MEMORANDUM

May 5, 1978

To:

William Coops

Interim Director

From:

George H. Balazs
Principal Investigator, Hawaiian Green Sea Turtle

Management Study

As discussed during yesterday's meeting, I would like to utilize the talents of Gerald Akiyama to investigate the feasibility of aging sea turtles through analyses of skeletal and laminal material. Such work can be conducted as a part-time assignment with considerable flexibility in hours.

As you are aware, I depart tomorrow for 20 days to attend meetings in Mississippi and Ontario. However, if this request is approved, some background literature work on the project can nevertheless start during my absence.

mk

Le apeis to the assignment.

Ac will be in contact with you.

Biel Corr

ce Leaeolhigan.

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, <u>Caretta caretta</u>. 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



Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW
9 August 1978

Dear Rene:

Following a recent visit to Hawaii, Dick James of the Solomon Islands sent me a copy of a letter from Tahiti concerning the recovery of a tagged turtle. I have had the letter translated roughly and found the information to be very interesting. I thought that perhaps it would be appropriate and useful to send you a copy of this letter, in the event that you have not already seen the information.

It would be very good if the authorities in Tahiti would assemble all of their data on turtle research and write it up for publication. Perhaps you could make this suggestion at the proper time.

Best regards,

George H. Balazs

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

1 August 1978 P.O. Box 1346 Kaneohe, Hawaii 96744

Mr. Robert L. Dunne Executive Editor Ranger Rick Magazine 1412 16th Street, N.W. Washington, D.C. 20036

Dear Mr. Dunne:

Thank you for your recent letter concerning my inquiry about the possible use of Hawaiian wildlife photography in your magazine.

In response to your circular of 10 July 1978, I am submitting for consideration two transparencies of a Hawaiian noddy tern roosting on a post. Hopefully you will find this material acceptable for your needs.

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

Recall Bio Science submission

UNIVERSITY OF HAWAII Hawaii Institute of Marine Biology Coconut Island • P. O. Box 1346 • Kaneohe, Hawaii 9674

Jally 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 r ted 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



Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW
30 July 1978

Dear David:

Enclosed is the data sheet for recent sea turtle taggings which I borrowed from the KK clubhouse. Many thanks. The taggings have really been going well and I offer my sincere thanks to all of those who have taken the time to do this valuable research. As I mentioned to you over the telephone, my supplier of turtle patches has not been very reliable. I am still in the midst of determining what happened to the \$50 I sent him in March. However, please be assured that everyone who tagged a turtle will receive a patch as agreed upon. You can certainly help me out by keeping a record of the forwarding addresses of those individuals who move to a new duty station.

Under separte cover I am sending you more tags. Hopefully you won't run out before these are received.

Best regards,

George H. Balazs

Hawaii Institute of Marine Biology 30 July 1978

MEMORANDUM

Dear Mr. Stark:

Nice to see you the other day during our very brief landing. It was certainly a good thing for me that I decided not to stay at Kure until the return C-130 flight:

I am now 99% certain that the turtle jaw from the tiger shark stomach is from a loggerhead sea turtle. This species has not been previously reported from any of the Leeward Hawaiian Islands. We have had two specimens recovered in recent years from Oahu, but both were extremely emaciated and undoubtedly drifted here on the ocean currents. Olive Ridley populations occur off the coast of Central America, in Southeast Asia and in Australia. Of course your tiger shark could have eaten the turtle at some location distant from Kure and then migrated to your waters. However, I think that this is unlikely. I would certainly appreciate recovering any additional stomach contents from sharks which you may catch. Such contents could be buried at a marked location for my future examination. Please bury all the contents, not just the items that you think are turtles.

While on Midway your men expressed concern to me about incidents of bird killing and seal disturbance taking place at Kure. While I am certainly not an enforcement agent of any sort, this type of activity does seem terribly unfortunate to me and I hope that some way can be prevent to stop it. The Migratory Bird Treaty Act and the Marine Mammal Protection and Endangered Species Acts all provide serious penalties for such violations. In addition, under Navy jurisdiction at Midway, such violations have been dealt with fairly severly. If there is any way that you think I could help in this matter, please feel free to call upon me.

Enclosed is a book on glass balls that I thought you and your men might enjoy.

Before leaving Midway I told Jayberg to take two of my SCUBA tanks back with him for your use at Kure. One bottle goes quite quick, and I thought you fould use the extra two for awhile until I get back up there.

Begt regards,

George/H. Balazs

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

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 NMPS 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 MMFS meeting that was going to be held in Mexico.

Sincerely,

George H. Balazs Assistant Marine Biologist

GHB:md

Encl.

May 9, 1978

Mr. Clancy Greff Na Pali Zodiac P. O. Box 456 Hanalei, Kauai 96714

Dear Mr. Greff:

I have read with considerable interest your application to the DLNR for continued use of State-owned lands in conjunction with small boat tours of the Na Pali coast. With financial support from the State and Federal governments, I am conducting management-oriented ecological studies of sea turtles throughout the Hawaiian chain. During the course of your activities, I wonder if you have made observations of turtles, either in the water or possibly nesting on the sand beaches? Any information that you can provide on this subject would certainly be most appreciated. In the not too distant future my plans call for a study-visit to Kauai. Perhaps it will be possible for me to meet with you at that time to discuss matters of common interest.

Sincerely,

George H. Balans Asst. Marine Biologist

mic

May 9, 1978

Mr. Thomas Haggarty Na Pali Coast Boat Charters P. O. Box 385 Hanalei, Kaumi 96714

Dear Mr. Haggerty:

I have read with considerable interest your application to the DLNR for use of State-owned lands in conjunction with small boat tours of the Na Pali Coast. With financial support from the State and Federal governments, I am conducting management-oriented ecological studies of sea turtles throughout the Hawaiian chain. During the course of your activities, I wonder if you have made observations of turtles, either in the water or possibly nesting on the sand beaches? Any information that you can provide on this subject would certainly be most appreciated. In the not too distant future my plans call for a study-visit to Kaumi. Perhaps it will be possible for me to meet with you at that time to discuss matters of common interest.

Sincerely,

George H. Balazs Assistant Marine Biologist

mle

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, NWAFC of the National Marine Figheries 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 Whittow (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 16.6 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 (80%-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.

cc Dr. Whittow

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 Chslonia 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 milelong 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 asken, 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 manipulation 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.



University of Hawaii at Manoa

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

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

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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 on 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.

July 6, 1978

Dr. Nicholas Mrosovsky Department of Zoology University of Toronto Toronto, Ontario M58 1Al Canada

Dear Wicholas:

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. Balaza Assistant Marine Biologist

GHB:md





University of Hawaii at Manoa

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

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

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 ase 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. 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.

-2-Ms. Karen Bjorndal 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: Ec Enclosures

UNIVERSITY OF HAWAII

Hawaii Institute of Marine Biology

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/WPO 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, Eretmochalys imbricata, Lepidochelys kampii, and Lepidochelys olivacea)

Dermochelidae (Dermochelys coriaces)

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 Marina Biologist and Member, IUCN Marine Turtle Group

cc: Dr. R. L. Jackowschout Island P. Ber 1965 Kansohs, Hawali 96744 /Cable Address: UNIHAW E. O. Box 1346

bcc: F. Wayne King

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. EXT/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

MEMORANDUM

TO: Mr. Kenji 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 5, 1978

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

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

Hawaii Institute of Marine Biology Coconot Island • P. O. Box 1346 • Kaneohe, Hawaii 96744

May 26, 1978

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

Dear Mr. Freeden:

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 21°40'N 160°33'W to 28°15'N 178°20'W 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

Mr. G. Richard Stonesiger
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 aprt of the State of Hawaii.

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

The copied charts are also being forwarded as you requested.

Sincerely,

GEORGE H. BALAZS Assistant Marine Biologist

GHB:ec

Enclosures

cc: Marine Affairs Coordinator



University of Hawaii at Manoa

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

March 23, 1978

To: Drs. Archie Carr and Nicholas Mrosovsky

Co-Chairmen, IUCN Marine Turtle Group

From: George H. Balazs

Assistant Marine Biologist

Subject: Cookbooks that encourage the killing and eating of sea turtles.

The enclosed copied pages from the book BOTTOMS UP COOKERY are a disgusting example of how the unnecessary killing and eating of sea turtles is perpetuated. It can be assumed that the authors: 1) are not aware of the survival problems of turtles; or 2) are aware of the situation, but simply don't care. In either case, I believe it is our job to straighten the matter out. I suggest that action be taken in the form of a direct, but tactful, letter jointly written from your desks (as co-chairmen) to the authors of this book with copies to the publisher. If a reasonable response is not received, copies should then be sent to several of the more widely distributed conservation magazines (e.g. AUDUBON), as well as diving publications (e.g. SKIN DIVER).

I look forward to seeing both of you in Toronto (assuming IUCN funding arrives!).

Encls.