



U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Fisheries Center
Honolulu Laboratory
P. O. Box 3830
Honolulu, Hawaii 96812

February 2, 1981

F/SWC2:GB

TO: William G. Gilmartin
Richard S. Shomura

FROM: George Balazs

SUBJECT: Summary Status Report for Program Activities involving Marine Turtles

Eight of the 12 months of my present IPA contract have now passed and it seems appropriate at this time to set forth an overview of our principal program accomplishments and aspirations relating to marine turtles. The listing that follows should help to establish priorities for future research and management needs, given the constraints of available funding.

1. Radio Tracking of Green Turtles at French Frigate Shoals - Phase I was accomplished during June 1980 when adults nesting and basking at Trig and Whale-Skate Island were successfully monitored for three weeks. Two publications from this work are now in preparation, one covering movements (senior authored by A. Dizon), and one dealing with surfacing-diving frequencies (senior authored by G. Balazs). Phase II will involve the similar monitoring of turtles that nest and bask at East Island, the most important breeding site at French Frigate Shoals. Current plans call for this work to be conducted during June of either 1981 or 1982.
2. Determination of 1980 Breeding Parameters at French Frigate Shoals - Comprehensive tagging and monitoring of green turtles were carried out at East Island in June 1980 for the eighth consecutive breeding season. This continuing study is the "foundation" of all marine turtle research in the Hawaiian Islands. Similar yearly assessments must continue.
3. Habitat Enhancement at French Frigate Shoals - Concrete foundations, along with iron and wood debris, have been consolidated and partially removed from East Island to improve nesting habitat. Phase II of this project is envisioned to involve a multiagency effort to remove all remaining litter.
4. Synopsis Report - The contract report "Synopsis of Biological Data on the Green Turtle in the Hawaiian Islands" has been transposed into a lab report and is now receiving widespread distribution.
5. Preparation of a Pacific Marine Turtle Newsletter - Letters of inquiry concerning this suggestion were sent to appropriate parties in all SPC member nations. Most of the responses were positive, however, very little information suitable for use in a newsletter has thus far been received. In order to help stimulate interest, a map of known marine turtle movements in the Pacific is being compiled for publication in the SPC Fisheries Newsletter.

6. Development of a Regional Marine Turtle Tagging Project for the Pacific Islands - Following considerable discussions with other workers as to the possible approaches that could be taken, I have arrived at the following conclusion. The initiation of such a project should consist of one or two individuals, well versed in applied marine turtle research and "state-of-the-art" management, visiting each Pacific location for 4-6 days to conduct seminars and distribute tags to key individuals. It would be unrealistic to expect programs to rapidly develop from this effort, however, significant advances in knowledge would nevertheless result on a long-term basis. Even a few tags applied intermittently can yield important information. Consider, for example, the brief tagging effort previously conducted at Scilly Atoll in French Polynesia.

We must also remember that locally funded marine turtle research (tagging) projects already exist in the Solomon Island, in Papua New Guinea, and on the Great Barrier Reef of Australia. Work may also soon commence in Indonesia.

7. Contract to the University of Hawaii for Marine Turtle Data Acquisition (Dr. G. C. Whittow, PI) - The basic purpose of this contract is to provide me with a research technician for sampling and tagging turtles at select foraging pastures around the main Hawaiian Islands. A number of field expeditions have now been successfully accomplished. Six months of this 12-month contract still remain.
8. Contracts to J. R. Hendrickson and Sea Life Park for Hatchling Marking Experimentation and Rearing in Captivity - My recommendations for the release of most these turtles in October 1981 will be set forth in a separate memorandum. After 4 months of captive growth, many of the grafts have taken and are readily discernible by white-black contrast. Redistribution of carapace pigments that occurs with normal growth is just now starting to occur. If a significant proportion of the marks remain clear at one year of age, a marking effort of hatchlings should be undertaken in conjunction with one or two selected existing hatchery projects.
9. Aerial Surveys of Marine Turtles and Habitat in New Caledonia - Charts for this overdue report are currently being prepared. Much of my enthusiasm to complete this report evaporated when I learned some months ago that Peter Pritchard had retroactively included the results in his own paper for the World Conference on Sea Turtle Conservation (November 1979), currently in press.
10. Evaluation of Hawkbill Hatchery in Western Samoa - This 14-day study visit will start on February 4. William Pedro of the Office of Marine Resources, American Samoa, will accompany and assist me for a one-week period.
11. Tagging Study at Rose Atoll, American Samoa - A three-day preliminary survey was conducted during November 1980 in conjunction with the Fish and Wildlife Service and the Office of Marine Resources. Although the apparent peak of the breeding season had passed, sufficient information

was obtained to indicate that this would be a highly desirable site to intensively tag green turtles during August or September. Preliminary plans for a 3-4 week project have now been made with the Office of Marine Resources. A high funding priority for this work should be established at the earliest opportunity.