

Intent to submit a research proposal to the Sea Grant College Program

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Title - An assessment of marine turtle stocks and their native usage in American Samoa

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(vitae attached)

Duration - Sea Grant Year 16 (1983-84)

Motivation - There is a need to investigate the marine turtle stocks of American Samoa from an interdisciplinary perspective that includes both a biological assessment and an ethnological appraisal. Very little information currently exists for the Pacific islands of Polynesia on either of these important aspects.

Both green turtles (*Chelonia mydas*) and hawksbills (*Eretmochelys imbricata*) are known to occur in American Samoa. Green turtles breed at the small outlier of Rose Atoll situated at the eastern-most end of the Samoan Islands (Figure 1). This uninhabited site has been considered a major breeding grounds for green turtles of the Central Pacific Ocean. Turtles hatched at Rose Atoll undoubtedly serve to populate coastal waters throughout American Samoa as well as the independent nation of Western Samoa, and possibly even as far away as Tonga. On the other hand, much of the breeding by hawksbill turtles in the Central Pacific is thought to occur on three islets off Upolu Island in Western Samoa. The distance from these islets to Tutuila Island in American Samoa is only about 40 miles. Marine turtles in the Samoa region are therefore an internationally shared resource.

Special attention to these stocks is warranted in order to establish the biological data base necessary to make sound management decisions.

At many of the islands throughout Polynesia (and elsewhere in the Pacific), the biological status of marine turtles is interwoven with the traditional subsistence life styles that are followed by the native inhabitants (see accompanying report on Tokelau - Balazs, 1982). The usage and cultural role of turtles in American Samoa should therefore be assessed concomitant with a biological investigation. The ethnological portion of this proposed study is expected to yield results applicable to a broad spectrum of Pacific communities, since American Samoa itself contains a gradient of Polynesian life styles. For instance, relatively modern life styles are led on Tutuila Island, while rural village communities occur in the Manua Islands, and isolated atoll living takes place at Swain's Island. The two main components of this proposed study are clearly complementary and, in some respects, actually dependent upon each other. For instance, the initial identification of key turtle foraging areas will result from interviews with native elders and knowledgeable fishermen who know best what has influenced the present state of these localized stocks and what traditional conservation systems are still in effect.

It is anticipated that the Government of American Samoa (Office of Marine Resources), the National Marine Fisheries Service, and the U. S. Fish and Wildlife Service will vigorously endorse this intended proposal. All three agencies have interests and responsibilities in the management of marine turtles in American Samoa. However,



limitations of funds and personnel are likely to prevent this work from being undertaken within the foreseeable future. Sea Grant appears to be an appropriate and logical avenue for accomplishing this task.

Goal - To assemble a treatise on the marine turtle stocks of American Samoa that includes essential biological data as well as ethnological information necessary for effective management.

Methods - The information that I propose to assemble would be obtained through a combination of on-site surveys of beaches and nearshore waters, extensive interviews with native inhabitants, and tagging at Rose Atoll. The most efficient and cost-effective manner of accomplishing this work would be to establish continuous residency in American Samoa for approximately eight months of the Sea Grant Year. Major budget items would therefore include round trip airfare between Honolulu and American Samoa, travel to the outer islands from my place of residence on Tutuila, salary or consultant fees for part-time assistants fluent in Samoan and English, and the Principal Investigator's salary at the R-3 level.

