

Summary of accomplishments for the first six months of Year 10 Sea Grant project "Survey and Assessment of the Green Sea Turtle Resource of the Northwestern Hawaiian Archipelago" (MR/R-2)

by

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The following accomplishments are listed according to the goals set forth in the project proposal.

1. Field studies have resulted in the location and initial assesement of turtle aggregations at Necker, Nihoa, French Frigate Shoals, Laysan, Midway and Kure. A page preliminary report has been prepared on the ecological aspects of the Necker turtle aggregation.
2. A total of 96 immature and adult turtles has been tagged throughout the Archipelago as an initial step in the determination of long distance migratory patterns.
3. Recoveries of previously tagged immature turtles at French Frigate Shoals, Midway and Kure have indicated growth rates of less than 1/16" in straight carapace length per month.
4. Preliminary data (see No. 3) have been obtained for the eventual formulation of a growth curve that will predict age at sexual maturity.
5. Behavioral observations of feeding and basking activity have been made at Necker, French Frigate Shoals and Kure. Kure has been selected as the optimum site to conduct telemetry studies of resident immature turtles using small helium-filled balloons. This work will commence during late 1978.
6. Samplings of stomach contents have identified two genera of algae (*Codium* and *Caulerpa*) that are major components in the diets of turtles at Necker, French Frigate Shoals, Midway and Kure.
7. Investigations of the productivity of the 1978 breeding assemblage will commence at French Frigate Shoals in June with the onset of the reproductive season.
8. Analyses have been conducted and a report prepared on turtle parts recovered from the stomachs of large tiger sharks sampled at French Frigate Shoals and Pearl and Hermes Reef.

Pathology of high incidence involving limb necrosis has been discovered in immature turtles at Kure.