

337
R-86-2

MAY 9 1986



National Marine Fisheries Service

SOUTHWEST REGION

300 S. Ferry Street
Terminal Island, CA 90731

0-15363251



~~UNIV. OF HAWAII
LIBRARY
JUN 8 1986
GOV'T DOCUMENTS
COLLECTION~~

A REVIEW OF INFORMATION ON THE SUBSISTENCE USE OF GREEN AND HAWKSBILL SEA TURTLES ON ISLANDS UNDER UNITED STATES JURISDICTION IN THE WESTERN PACIFIC OCEAN



By

R. E. Johannes



JANUARY 1986

(Contributed by...)

ADMINISTRATIVE REPORT SWR-86-2



degree to which turtles are threatened by overharvesting. During a total of about 14 months in the Palau archipelago I gained the impression that while turtle meat and eggs were relished, they were nowhere an important item in the diet.

The South West Islands

The South West Islands lie within the Palau District but are inhabited by people whose culture and language is quite distinct from that of Palau. Three of these islands, Tobi, Sonsorol, and Pulo Anna are continually inhabited. Two others, Merir and Helen Reef are sporadically inhabited by a few individuals. Linguistically and culturally the inhabitants of the South West Islands are related to the people of Fais and Ulithi, two islands in the Yap district about 1500 miles to the east. The South West Islands are very small, the largest having an area of only about one quarter of a square mile.

Some nesting of green turtles occurs on Tobi, Sonsorol, and Pulo Anna but the main rookeries for green turtles in the Palau district are at Helen Reef and Merir. These have been described as the most important rookeries for green turtles anywhere in the Pacific under U.S. jurisdiction (Pritchard, 1982). The nesting season extends from April to October according to South West Island fishermen, with clutch sizes decreasing as the season progresses.

Hawksbill turtle shell was extremely important traditionally as the main source of material for the manufacture of fish hooks. Line fishing played a very important part of the acquisition of animal protein in the islands. The land area was too small to support significant terrestrial sources and the reefs too small to support much net fishing (Johannes, 1981).

Because the traditional manufacture of turtle shell hooks was very time consuming, they were treated with great care. If a grouper ran into a hole in the reef with a hook, the line was not broken off and the hook sacrificed as metal hooks are today. Instead a steady tension was kept on the line until the grouper finally emerged - sometimes as much as an hour later. If a hook got snagged on a coral, a rock was attached to a second line, hooked on the fishing line, and slid down it. A little slack was let out in the fishing line so that the rock weight would pull on the hook from below, thereby sometimes unsnagging it in situations where an upward pull was of no avail (Johannes, 1981).

According to Black (1977) there has been an "abandonment of many onerous prohibitions associated with pre-Christian fishing." He does not state whether any of these relate to the taking of turtles, but, judging by the situation in other parts of Micronesia, some of them probably do.

Although turtles have never been abundant around Tobi within living memory (see also Holden, 1836) their numbers seem to have decreased even further in recent years according to Tobians. About ten years ago it was decided at a meeting that turtle eggs (a great delicacy) would no longer be eaten, so that there would be more turtles to eat in the future. Anyone who violated the new law would be fined.

A person finding a nest reported it to the island magistrate, who immediately fenced the site to keep the hatchlings safe from cats. When the eggs hatched the hatchlings were gathered up and kept in a large bucket where they were fed finely chopped fish. When they were judged big enough to have a good chance of surviving they were ferried by canoe out to the open sea and released. (The extent to which turtles depend on their trip across the beach and reef in order to "imprint" on the birthplace and find it again at egg laying time is unknown.) If this trip is an important part of the imprinting process then these efforts at conserving turtles may be counter-productive.

Unfortunately, a new crop of teenage boys not in on the original decision began eating all the eggs they could find a few years later. The current state of egg conservation efforts on Tobi is unknown. A similar conservation measure was introduced at about the same time on Sonsorol (Johannes and Black, 1981).

Traditionally, South West Islanders sailed periodically to Helen Reef to obtain turtles and giant clams. Today this does not occur. The population of the South West Islands is an order of magnitude lower than it was eighty years ago (Eilers, 1936) because of emigration to Palau. Pressure put by these islanders on their turtle resources is thus probably reduced over earlier levels. However, Helen Reef was the subject of considerable depredation by Taiwanese trawlers in the 1970s. In addition, a small number of Palauans habitually harvested turtles illegally during visits of the government supply vessel to Helen Reef. South West Islanders resented these intrusions - illegal according to both traditional and modern laws - but could not stop them; the Palau government ignored complaints concerning these activities.