

from J.J. Parsons
The Green Turtle and Man

1962

→ The green turtle, though known throughout the Pacific Islands, does not appear to be found in major concentrations anywhere among them. In most of the islands the taking of a turtle is an event sufficiently rare to call for a community celebration. There are indications, however, of a few more favored nesting beaches and feeding grounds and there were many more in the past.

A modest turtle fishery exists in the Hawaiian Islands, especially off the islands of Oahu, Molokai, and Maui. Between 1948 and 1958 official statistics indicate a catch averaging some 10,000 pounds a year, most of which finds its way to Honolulu restaurant tables. *Chelonia mydas*, however, is not known to nest anywhere on the main islands nor are specimens smaller than ten to fifteen inches in diameter ever taken by local fishermen.* Circumstantial evidence points to French Frigate Shoal (23° 45' N.) and the other islands of the remote Leeward group as the home of most of the turtles found in Hawaiian waters. Of this string of tiny islands stretching northwest for more than 1,000 miles from Honolulu, only Midway and French Frigate Shoal are inhabited, the latter by a small Coast Guard detachment. All but Midway are in the Leeward Islands National Wildlife Refuge, so that the turtles are protected along with other wildlife. Even though there is no patrolling or supervision of these islands, they are so infrequently visited that violations must be extremely rare.

Most reports of green turtles in this area are of individuals basking on the shore during daylight hours, a behavior pattern that has been previously suggested as distinguishing the Indo-Pacific population from its Atlantic counterpart. While it is apparent that certain of the Hawaiian Leewards must be targets for nesting females during the fall of the year, the favored beaches do not seem to have been identified except in the case of French Frigate Shoal, where both nesting and basking populations have been reported. Dale Rice, who made numerous flights over the Leewards during 1957 and 1958 and spent time ashore on several of them observing the Hawaiian monk seal, reports having seen especially large concentrations of basking green turtles on Pearl and Hermes Reef, always on the same beaches, namely, on the north side of Southeast Island (usually twenty to fifty turtles) and a small bight on the south side of North Island (nor-

→ * Personal correspondence, Vernon Brock, Director of Division of Fish and Game, Territory of Hawaii, November 28, 1955; see also 160.

mally ten to twenty turtles). Smaller numbers were present on Lisianski and Laysan atolls.* On more remote Midway juvenile greens are occasionally taken in the lagoon by skin-divers from the naval base, but adult turtles do not appear to haul out there today, undoubtedly because of the considerable human activity ashore.

The extent to which the Hawaiian Leewards may have been exploited for turtles in the past is conjectural. One account, at least, suggests that it was more than a casual matter. In the spring of 1882 a Japanese-chartered vessel for which we have a record took at least 390 turtles, including an undetermined number of hawksbills, in the Hawaiian Leewards beyond French Frigate Shoal. Of these 10 were taken at Midway, 28 at Pearl and Hermes Reef, 126 at Lisianski, 17 at Marco Reef, and 191 at Laysan. Some were turned on the beaches and others harpooned at sea, but it is not clear whether those taken on land were turned during daytime hours or as they came ashore at night to make their nests. At Laysan, where 61 were turned within a few hours, a sign was found on shore that carried an appeal for passing ships not to take more turtles than needed. Their abundance at this time must have been such as to have encouraged waste. The visitors, apparently in sympathy with the recommendation, repainted the sign and placed it on a pole before leaving. At French Frigate Shoal, where they slaughtered a part of the catch and dried the meat in the sun, they must have taken more turtles. The account left to us only states that 47 gallons of turtle oil and 1,500 pounds of shell were added to their stocks there, along with bêche de mer, albatross down, and shark fins. The entire product of the voyage was eventually transhipped to Hong Kong, from where the turtle was sent on to England. (See 110; the log was kept for six months by George Mansbridge, an employee of the Mitsubishi Company of Madagascar.)

It seems generally agreed that green turtles are much rarer today than they formerly were in Hawaiian waters. It is even possible to speculate that they once congregated on the beaches of Honolulu itself. Although, according to W. A. Bryan (26:299-300), the name is generally agreed to have been derived from a Hawaiian word, *hono*, meaning harbor (Honolulu, "quiet harbor"), one cannot resist pointing out that the Hawaiians know the green turtle by the almost identical term of *honu* and that beaches such as Waikiki might

* Personal correspondence, Dale Rice, Richmond, California, August 14, 1959, and Karl Kenyon, Sand Point Naval Air Station, Seattle, August 13, 1959; see also 117.

have been attractive to nesting populations before man took over as the ecologic dominant.

There are scattered references to green turtles in the literature on the South Seas. At Pukapuka in the Tuamoto Group they are said to be not uncommonly taken on the beaches or seized in the lagoon by swimmers who throw a noose around their fore flipper and grapple them ashore with their hands. Today the taking of a turtle calls for a public feast, for by island law it is the property of all. Yet there is evidence even here of the disruption of a former more conservative relationship between man and nature in the statement of one native islander that "it is only in recent times, since people have taken eggs of turtles from the nest, that turtles have been dying out" (11:69-70, 105; 72). But it is difficult to reconcile this statement with other evidence that Pacific Islanders generally pay more attention to the eggs than to the meat of the turtle.

Ethnology
of
Pukapuka

COOKS

Mopelia, in the Society Group, is also locally renowned for its green turtles, which are said to come ashore to lay especially during the month of November (66; 129). Their numbers are apparently not large, for it is considered a good week when a dozen of them haul up on the beach. The natives here have been attempting to build up the depleted stock by protecting the young turtles and eggs against predators. Young turtles are raised in the lagoon for a year, then released. For every turtle a native raises and sets free he is allowed to send another to the Papeete market to be sold and credited to his account.

Another *Chelonia mydas* nesting center is Captain Cook's "Turtle Island," Vatoa, southernmost of the Fiji group. This may well be the home base for the greens that are reported to feed in substantial numbers off the Kermadec Islands (30° S.), midway between Fiji and New Zealand (159). The Kermadecs must be close to the southernmost limit of the species range and it is not surprising that it does not breed there. Generally the hawksbill seems to be more numerous and more important economically in Fijian waters than the green. The tiny island of Vomo, off the northwest coast of Viti Levu, was especially renowned in the last century for its tortoise shell. According to Charles Wilkes, the turtles were mostly taken between December and March, being kept in "pens" on the reef until needed (232:3:261).

Herold J. Wiens (230a:422-31) has recently reported several nineteenth-century references to localized nesting beaches in the central Pacific, some of which are not included in the front end leaf map. These include Rose Atoll (American Samoa), Palmerston Atoll, and Fanning Island. He also men-

tions the D'Entrecasteaux Reefs, at the north tip of New Caledonia, where William Billings, master of an American sailing vessel aground there in September, 1856, turned twenty-seven basking turtles in one morning without wetting his feet, and counted another eighteen asleep in only a few inches of water. One wonders whether they still haul up there today, and in what numbers.

In Micronesia the green turtle appears to be known everywhere, but it is more plentiful in the Carolines than in the Marshalls. Several atolls in the Central Carolines, east of Yap and south of Guam, have a special reputation as nesting centers, including Ulithi, Ifaluk, Gaferut, Olimarao, and Elato. "Uninhabited Olimarao is noted for its turtles and canoe loads of people from Lamotrek regularly go there to make copra and capture turtles and hunt their eggs during the laying season. Gaferut is said to be a favorite place for turtles but Faraulep islanders who own the island have not attempted to go there since 1950 when canoes started for the atoll but were caught in a storm resulting in the loss of around 12 lives including their chief" (216:5-6). On Ulithi and Ifaluk green turtles are said to be reserved for ranking clans and chiefs. On some of the islands the egg-gathering season was originally opened with elaborate and stylized rituals, but this is no longer the case. The turtles are here prized both for their meat and their eggs, being turned on the beaches and captured in the lagoons with the aid of harpoons or a noose, or even steered ashore by a powerful swimmer. During the Japanese occupation there was legislation against taking turtle eggs and nesting turtles, but enforcement was impractical. Similar restrictions have been imposed by the United States Trust Territory administration, apparently with no greater success. In several of the islands, as Palau, Ponape, Truk, Mokil, and Oroluk, natives recently have been reported to be raising young turtles in captivity until they are large enough to defend themselves against predators. In some cases this practice may have a native tradition behind it. However, it has more often been directed towards the hawksbill than the green variety.

THE WEST COAST OF MEXICO

Little is known about the geography and ecology of green turtles off the Pacific Coast of Mexico, but they are apparently relatively abundant from Acapulco northward to Bahía Vizcaíno, Baja California, and throughout the Gulf of California. They have been seen as far north as San Diego

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