



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

Southwest Region
300 South Ferry Street
Terminal Island, California 90731

August 17, 1984

F/SWR31:JHL

TO: William G. Gordon
Assistant Administrator for Fisheries, F

FROM: *[Signature]*
E.C. Fullerton
Regional Director, F/SWR

SUBJECT: Subsistence Taking of Sea Turtles in the Central and Western Pacific - DECISION MEMORANDUM

The purpose of this memo is to transmit our review of the subsistence uses of sea turtles in the central and western Pacific with respect to our regulations which provide a subsistence exception for the residents of the Territory of the Pacific Islands, and to request your concurrence with the conclusions and recommendations we present in the document. We are also requesting your assistance in publishing a Federal Register notice to announce our final determination. Both documents are attached.

Background

Currently our sea turtle regulations (50 CFR 272.72(f)) authorize a subsistence take of green sea turtles in the Trust Territory of the Pacific Islands (TTPI). In late 1981 the State of Hawaii requested the National Marine Fisheries Service (NMFS) to consider authorizing a take of green sea turtles for home consumption, and an individual Hawaiian, speaking on behalf of native Hawaiians has requested NMFS to recognize native Hawaiians' aboriginal rights to take turtles. In 1982, Guam voiced their opinion that our regulations were inconsistent and inequitable in the Mariana Archipelago. Guam and the Commonwealth of the Northern Mariana Islands (CNMI) comprise the Mariana Archipelago. The CNMI is allowed to participate in the subsistence exception because they are part of the TTPI. Guam is excluded from the subsistence exception because it is not part of the TTPI and during the listing process they did not provide sufficient information to substantiate the need for a subsistence exception.

In response to these requests we initiated a review of our regulations. During the review we examined the criteria that must be satisfied in order to authorize a subsistence take, the traditional uses of sea turtles in the central and western Pacific, and the status of the green sea turtle stocks. We established that a subsistence authorization could be allowed only if it could be demonstrated that an existing culture was dependent on the taking of sea turtles for its continued existence and that the turtle stock involved would not be jeopardized by the subsistence take.

As part of this review we conducted public hearings in Guam, the CNMI, American Samoa, and the Hawaiian Islands to collect information on the need for subsistence exceptions in those areas. We issued a contract for the



rec'd 8/24/84

review of cultural dependence on sea turtles throughout the central and western Pacific, and we requested the NOAA Office of General Counsel Southwest (GCSW), to review the various subsistence exceptions and provide us with their guidance on what criteria need to be considered in authorizing a subsistence take. Concurrent with the review on subsistence taking, we conducted a review of the status of the listed sea turtles stocks. The results of the status review were incorporated in the review of the subsistence issue.

The document on the review of the subsistence regulations has been reviewed within NMFS and by GCSW, the state resource agencies, and the Center for Environmental Education. With the exception of the CNMI, all generally agree with the conclusions and recommendations.

Conclusions

The review of cultural practices outside the TTPI revealed there were no extant native cultures that are dependent on the taking of sea turtles. The request from the State of Hawaii and the Territory of Guam were not made on behalf of any particular cultural group, so they could not be considered under a subsistence exception at this time.

A home use exception that is available to everyone does not distinguish a native subsistence take from a recreational take and is not consistent with the ESA. Home use and commercial use can be authorized only after green sea turtle stocks have recovered and are delisted.

Guam's complaint that our regulation is inequitable in the Mariana Archipelago is justified. However, the information considered in this review does not substantiate a need for a subsistence take in Guam. A review of the administrative record for the listing of sea turtles demonstrates the CNMI received its subsistence exception because of its political status as part of the TTPI and not because a need or cultural dependence had been demonstrated. This inequity will be resolved in the near future when the TTPI dissolves. At that time, the Covenant of the CNMI becomes fully effective and the CNMI will be subjected to the same regulations as Guam.

Recommendations

1. Maintain current prohibitions on the taking of sea turtles in Hawaii, Guam, and American Samoa until the green sea turtle populations can be delisted.
2. In cooperation with the FWS and appropriate island resource agencies, establish a recovery team to develop a plan for the recovery of green sea turtle populations in Hawaii, American Samoa, and the Mariana Islands. The recovery plan should be completed by September 1986 and should outline the studies that are necessary for determining the discreteness of the green sea turtle stocks in American Samoa, and the Mariana Islands, and the studies that are necessary for assessing the populations with respect to the criteria established for delisting.

3. The recovery team should define criteria for delisting. For example, attainment of a recruitment goal, a population size that can sustain a take for home consumption, attainment of a stable age distribution in the population, and/or reoccupation of a percentage of former nesting habitat.

4. If the status negotiations in the Trust Territory continue beyond the completion of the recovery plan, the NMFS should consider restricting the subsistence exception to only those low islands in the TTPI where subsistence lifestyles persist.

5. The NMFS and the FWS should provide assistance to native Hawaiian groups that may qualify for consideration under the American Indian Religious Freedoms Act in making application for such a consideration.

6. The NMFS and the FWS should offer to assist the low island communities in Micronesia to develop acceptable management practices to compensate for the decline in observation of traditional taboos that protected turtle stocks from over-exploitation.

7. The NMFS and the FWS, in cooperation with the State of Hawaii, Division of Aquatic resources, should identify scientific, educational, or zoological display projects that are likely to contribute to the recovery of the Hawaiian green sea turtle population and that can be implemented under an ESA permit while the recovery plan is being developed.

Concurrence:

X I concur.

 I do not concur.

 I wish to discuss this further.

Attachments



William G. Gordon
Assistant Administrator for Fisheries

Dec. 20, 1984
Date

APPENDIX C

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

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INTRODUCTION

The islands discussed in this review are those of Micronesia (excluding Kiribati), Hawaii, and American Samoa. For many centuries the green sea turtle, Chelonia mydas, and the hawksbill turtle, Eretmochelys imbricata, have served a wide range of important functions in the lives of the inhabitants of these islands. The eggs and flesh provided food. The shell of the hawksbill has been described as the "world's first plastic" and has served a wide variety of ornamental and practical uses. Turtle bones were used to make tools. Various parts of the turtle were used to make medicine. In addition, turtles have been (and still are on some islands) the focus of important religious or ceremonial practices.

Overharvesting has led to the apparent widespread decline of sea turtle populations in these islands. An important question, under the circumstances, is, to what extent can the the traditional use of sea turtles by the islanders continue without unacceptable damage to turtle populations? It is not the purpose of this review to address this difficult question. Rather it is to provide, as an aid to others whose responsibility it is to wrestle with it, a summary of what is known about the traditional use of sea turtles in Pacific islands under U.S. jurisdiction.

I do not intend to define rigorously the terms "traditional" or "subsistence", which I shall use interchangeably in this review. A book could be written concerning how and why these terms have been so variously defined. Subsistence and commercial activities lie along the same activity spectrum; to draw a line separating the two classes requires making an arbitrary judgement. For example, a Pacific Island turtle hunter who gives meat to his relatives is clearly engaging in a subsistence activity, while one who sells his turtles to commercial exporter is not. But what about one who sells turtle meat to his relatives? Some would say this falls within the framework of traditional subsistence activities. They would point out that traditions are not static; they evolve to fit the times. Thus the involvement of cash in a transaction in what was originally a cashless society does not automatically render that transaction non-traditional. Such an argument is not unassailable but it has merit. It could, however, be pushed to ridiculous extremes. Using it, one might claim, for example, that sophisticated modern long-liners are part of a traditional fishery insofar as one could trace their long, stepwise evolution all the way back to the primitive traditional stone age gorge.

For the sake of deciding what activities to exclude from this review I will simply consider as non-traditional, the sale of turtles or turtle products to people who are neither one's relatives nor belong to one's village or local community. Clearly there are other equally justifiable dividing lines I might have chosen.

I would, however, like to take exception to the definition of "non-commercial hunting" given in a statement on Sea Turtle Conservation Strategy emanating from the 1979 World Conference on Sea Turtle Conservation. Here, non-commercial hunting is defined as, "a traditional way of obtaining food practiced by aboriginal peoples who are not yet part of a cash economy or technological society". This definition is so restrictive as to have no practical utility. No Pacific Island society (and vanishingly few elsewhere) can be said today to be "not yet part of a cash economy or technological society." The transition from subsistence to cash economies does not occur overnight. It often takes several generations, during which both types of economies co-exist. This state of affairs is strongly in evidence today in one of the geographic foci of this review, Micronesia.

MICRONESIA

Micronesia occupies an area of land and water equal to that of the United States in the western central Pacific. It contains three large island groups under various forms of U.S. jurisdiction. These are the Caroline Islands, the largest group, lying in the south and central portion of the area, the Marianna Islands, occupying the northwest sector, and the Marshall Islands in the east. The approximately 2,200 islands in the area are all small. Only about 100 are inhabited and the total population is less than 200,000.

CAROLINE ISLANDS

For ease of discussion it is useful to subdivide the Caroline Islands into several districts - Palau, Yap, Truk, and Ponape. Each has distinctive cultural and environmental features. Each also contains small, low, sometimes remote coral islands as well as high volcanic islands on certain of which district and commercial and political centers are located. Because turtles generally prefer to nest on the beaches of the low islands, the inhabitants of such islands tend to have the most contact with them. Due to their typical remoteness from commercial centers these islanders have also tended to retain a greater fraction of their traditional subsistence culture. As will be discussed below, sea turtles continue to play a major role in the nutrition, and ritual and social life among the people of certain of these low island groups. Turtles generally assume less importance today around high islands and district population centers.

THE PALAU DISTRICT

The Palau (Belau) District, in the southwest corner of Micronesia consists of the Palau Archipelago plus the tiny, isolated and culturally distinct South West Islands.

Palau

Since western contact Palauans have held the reputation for being the best fishermen in Micronesia. Today outboard motors and imported runabouts have replaced dugout canoes, but subsistence fishing remains important, especially in the outlying villages.

Catching Turtles

Kubary (1895) and Kramer (1929) described the maramas net once used by Palauans to catch sea turtles in shallow water. The net was made of 3 mm dia. sennet line, 30-40 m long, 4-5 m deep and with meshes of 25-30 cm. It was apparently still in use in the late 1950's (Anonymous, 1961). But I did not see or hear of it, or of any other kind of net, being used for turtles in Palau in the mid-1970's. Nevertheless, I suspect that an occasional turtle was caught incidentally in nets set for mullet or other net-prone fish.

Another method of catching turtles was probably not developed until the introduction of diving goggles to Palau by the Japanese. The following description comes from Anonymous (1961). "A turtle hunter will dive in a likely looking area of the lagoon until he locates a large coral rock with an excavation or hollow under it. By examination he can tell from experience whether or not this is a place where a turtle frequently comes to "rest". If it proves to be such a place, the man will wedge a wooden stick in the middle of the entrance to the hollow and tie a rope to it. At the other end of the rope, which must be at least as long as the depth of the water at that point, he ties a stone which is set on the lagoon bottom a short distance from the hollow. The man returns to the spot by canoe several times each day. If the stick is found to be floating on the surface the hunter knows that probably a turtle has gone into the hollow to "rest" and in doing so has dislodged the stick which rose to the surface. The man then dives down to the rock and quite often the turtle will still be in the hollow and can be easily caught by spearing or by tying a rope on one of its flippers. This particular method of capturing turtles is infrequently used today."

Anonymous (1961) also states, "Sometimes several canoe loads of men will go out to the reef and line the canoes up in such a way that they can be poled along in the same direction. Large areas can be "combed" in this way and turtles are seen and speared. The animal is retrieved by one of the men who will jump into the water after the speared turtles and stick his fingers into its eyes and bring it to the surface." (I never heard of this method being used in the mid 1970's, in part, perhaps, because reef fishing was becoming increasingly an individual rather than group activity (Johannes, 1981).)

Divers sometimes swim about the lagoon until they see a turtle which they will try to spear in its neck or flipper or head in order to keep from damaging this shell. If the diver can get close enough he sometimes implants a hook in the soft parts of the turtle by using a long pole to which the hook is detachably fastened. The hook is tied to the end of a rope at the other end of which is a float. The turtle will swim about pulling the float after him until he becomes exhausted and is then easily caught. This latter method was allegedly introduced by the Okinawans during Japanese times," (Anonymous, 1961).

Also, according to Anonymous (1961), "whenever a pair of turtles are seen having sexual intercourse in the water, the observer simply waits until they have exhausted themselves at which time they are relatively easily caught." This statement is incorrect. When sea turtles are copulating they are, like many marine vertebrates, in a sort of stupor that renders them seemingly oblivious of approaching danger; fatigue has nothing to do with it. Thus fishermen do not wait when they see copulating turtles. To do so would be to invite the possibility of the turtles completing the act - after which they recover their wariness very quickly.

When Palauans go spearfishing along the outer reef slope they often attach a polypropylene rope to the butt of the speargun. The other end of the rope is tied to a combination float and fish-stringer made from a length of bamboo, or a plastic bleach bottle. When something is speared that is strong enough to pull the diver beneath the surface, the speargun is released and the prey allowed to tire by fighting against the float. This practice also occurs in Yap (Anonymous, 1961). I once saw a large green turtle captured in this manner in Palau. The turtle sounded and the gun, line and float disappeared from view into deep water. Only one hour later did the float pop to the surface signalling that the turtle had finally given up the struggle.

Turtles, according to Palauans, feed mostly during early morning and late afternoon. Often around midday they move into the lagoon and sleep on the bottom for two or three hours. The hawksbill generally sleeps in a crevice or cave in the reef; the green turtle more often chooses a sandy bottom, under an overhanging coral head. Both species sleep during part of the night, hawksbills generally sleeping longer than green turtles.

Both green and hawksbill turtles have customary sleeping places with which some Palauan fishermen are familiar. One fisherman in a village in which I lived was clearly more knowledgeable than the others about such sleeping places. When he went turtle fishing, I was told, he invariably returned with a large green. I witnessed the return from two such successful trips (involving two out of a total of only four green turtles I saw caught during 14 months of residence in Palau). Green turtles are easy to catch when sleeping because they are almost oblivious to disturbance. Palauans say a person who is hard to wake up bad el-wel - "sleeps like a turtle."

Palauans today often keep spears handy in their boats in case they happen to see a turtle in their travels. Fishermen say that hawksbills and small green turtles tend to head straight for deep water when pursued. Consequently they are approached, if possible, from deeper water so that they will have to run toward the boat. Hawksbills seem to have less stamina than greens and tend to give up quickly, making them comparatively easy targets. Larger green turtles, say Palauans, typically run only a short distance, then circle the boat, apparently trying to confuse the pursuers. Eventually they either come up for air or seek shelter, in either case becoming easy prey.

Harvesting of Eggs

A few green turtles nest on small islands near the northern and southern ends of the Palau Archipelago, but the major nesting sites for this species in the Palau district are Helen Reef and Merir, two small almost uninhabited islands in the South West Island area.

Within Palau's main lagoon hawksbills nest in the Seventy Islands area. Here for centuries their eggs have been collected and eaten. Palauans state that more turtles lay their eggs here around new and full moons than at other times of the lunar month. (Such lunar reproductive periodicity has been found at certain other sea turtle rookeries in the Indo-Pacific, but not at others). Palauans have long known that the hawksbill lays eggs at approximately 14 day intervals in their area. A well-known Palauan folk tale relates how two lovers accidentally discovered this egg laying pattern.

Palauans have taken the ability to anticipate when a turtle will return to its nesting beach two steps further. They have learned, according to fishermen I interviewed, that by examining the eggs in a nest they can deduce how long ago they were laid (see also Anonymous, 1961 and Helfman, 1968). Newly-laid eggs are rubbery and flesh colored, with a white disc at one end. But the shell begins immediately to calcify and harden. The white calcifying disc gradually enlarges and spreads over the entire shell. The experienced turtle egg hunter, it is claimed, can estimate the age of an egg, up until six days after laying, by the size of the calcified white spot. After the sixth day an egg must be peeled and the size and state of the developing embryo used to determine the age of the nest. By the fifteenth day, for example, the umbilical cord is clearly visible (Solomon Islanders apparently use similar criteria to determine when turtles will return to lay their next batch of eggs (Hocart, 1929).) Using a piece of twine the Palauan fisherman ties a number of knots equal to the calculated number of nights that will elapse before the turtle will return to lay its next batch of eggs. By removing one knot each day he knows when it is time to intercept the turtle on its return to the beach.

This technique is not perfect because the fifteen-day egg-laying cycle is only approximate; the female may return on the fourteenth day, or more rarely on the sixteenth day, according to egg hunters. In addition, according to egg hunters, the embryos do not develop at exactly the same rate, growing more slowly in shaded or overly moist nests or in rainy weather. (Too much fresh water collecting in the nest is liable to cause the eggs to rot, they say). Roots growing too densely around the eggs will hinder the escape of the hatchlings.

A second observation allows the Palauan egg hunter to distinguish between an individual turtle's first clutch of eggs for the year, its last clutch, and intermediate layings. The eggs at the bottom of the first clutch are small, elongate, have little yolk, and seldom hatch. There are few misshapen eggs in the intermediate clutches. In the last clutch the eggs on top of the clutch are small and misshapen. It is as if the reproductive machinery of the turtle is a little rusty early in the season and falters once again just before it shuts down at the end of the season, producing inferior eggs in both instances. I know of no scientific studies that have any bearing on this contention. But two bits of circumstantial evidence lend some credence to it. First, the Polynesians of the Tuamotus have made similar observations. According to Emory (1975, p. 217) "the last eggs to be laid were smaller than the others and were called teke titi. When such eggs were observed it was a sign that the turtle would not come ashore again that season." Secondly, the first and last eggs laid by certain geckoes during their reproductive lives are similarly small and misshapen (M. Falanruw, personal communication).

Utilization

According to Kramer (1929) turtle meat was very popular with chiefs. It is not possible to tell from this comment or any other early account whether or not turtle meat was actually reserved for the upper classes in Palau as it was, and sometimes still is, in some other parts of Oceania.

Kramer (1929) describes preparation of a turtle for a meal: "First the animal, which was still alive, had to be killed. Two men seized it and pressed it vertically against the stone wall of the golbed; one held back the right front limb, another bent back the head so that the throat was exposed and the third delivered seven strong blows on the underside of the neck with a stick. Hot water was poured over the dead animal and the shell was loosened with a knife. Then four posts were driven into the ground and the turtle was laid on top of them with the back up; a fifth post was set up as a support under the head so that it would not hang down. In this manner it is possible to cook the animal in the shell. A screen is set up as a protection against the fire. When the meat is done, the abdominal plate is taken off and is laid on a mat in the blai for the family to look at."

The above description applies to the green turtle. According to Kramer (1929) eating of hawksbill was taboo to all except old women. Sixty five years after Kramer's research a reliable Palauan informant told me that originally hawksbills were not eaten in Palau because the smell was considered unpleasant. Then it was discovered that by boiling the meat in water that is changed several times the disagreeable smell is removed. Now, when hawksbills are caught primarily for their shell (see below) the meat is no longer wasted. No taboo apparently exists against eating this species today. Nevertheless Palauans, like most Micronesians, prefer the taste of green turtles.

According to Anonymous (1961) "When a man killed a turtle, he would take it to his house and call the women members of his clan in the neighbourhood to come and partake of the meat. The women would gather and bring their own taro and feast on the meat. At the close of the feast the women would take some of the meat to their homes for their husbands and family. At this time the man who killed the turtle would claim some of the meat for himself and his own family."

Turtle meat was sometimes used in treating illness (Anonymous, 1961). "If a household had a sick member it could sometimes be determined by divination which spirit (Chelid) was causing the malady. A turtle would then be caught and killed and taken to the place in the forest where this particular spirit was known to dwell. At this spot (sometimes a hut was erected there) the members of the sick person's household would gather to eat the turtle meat and plead with the offending spirit to restore the sick person to good health."

In the 1920's a charismatic leader in Palau founded a new religion and persuaded Palauans to discard many of their old religious beliefs and rituals. One of the ceremonial practices of this new religious group, the Modekngei, involved the burning of turtle meat as an offering to their deity on special offering days. Some people still made such turtle meat offerings in the 1950's (Anonymous, 1961). The Modekngei religion is still strong in

some areas of Palau today and the practice may continue even now. But the investigation of their practices by outsiders is discouraged by adherents to Modekngei.

If any persons killed or captured a turtle at Ngerduais beach in Airai municipality in the old days he was obliged to take the meat to the house of the Nger Kikelang family, for they were they family of the god of Airai (Medechiibelaw). Only this god required such an offering and the practice has been abandoned for many years (Anonymous, 1961).

Kramer (1929) reported that the employment of hawksbill shell in various ways constituted "a regular industry such as can be found in no other oceanic group." Among the implements and adornments made from it were fish hooks, combs, spoons, bracelets, armbands, rings, ladles, cups, dishes, ornamental daggers and lime container stoppers (Semper, 1873; Kramer, 1929; Force, 1976). According to Force (1976), an object made of turtle shell was appreciated for its size, the beauty and thickness of the shell, the quality of the artisan's skill in producing the object and for its age. To form these objects the shell was immersed in hot water and then molded with carved wooden forms (Kubary, 1895). Early visitors to Palau remarked on the beauty of some of these objects and one even questioned whether they could really be of local manufacture (Dumont d'Urville, 1843).

Among the plates and spoons made from turtle shell were several types used as a form of exchange by women. The dishes so formed were known as toluk and were used to serve food to persons of rank and to make offerings of food to the gods (Kubary, 1895).

According to Force (1976), "today toluk are rarely made. In the 1950's only a few men continued to work in turtle shell. By 1971 only two men were acknowledged artisans and most of their work consisted of making bracelets and earrings for sale to visiting tourists. Toluk, themselves, are considered rare." Similarly, I saw little evidence of Palauans making turtle shell objects for their own use in the mid 1970's. Individual scutes were sometimes incised with drawings and sold to Japanese tourists, but my impression was that the volume sold was minor. Force (1976) attributes the reduction in turtle shell use in part to the introduction of conservation measures.

During the mid 1800's Palau turtle shell possessed a high foreign trade value owing to the activities of such dealers as Andrew Cheyne.

It has been stated that in Palau, "there never seems to have been any particular class or group of individuals to whom to catching or killing of turtles was restricted. Any man was able to hunt these animals," (Anonymous, 1961). The same writer states also that no restrictions were placed on the collection of turtle eggs. These statements are not consistent with other information. I suspect that the anonymous author's Palauan informants were simply unaware of traditional prohibitions (see below) that were apparently practiced in restricted areas of Palau or that have fallen into disuse.

Kramer's (1929) description of the taboo on eating hawksbills has already been mentioned. Kubary (1895) states that turtles were difficult to catch and expensive to purchase, and that not all Palauans were allowed to catch them. According to Palauans I interviewed, the god of the small island of Ngerur,

north of Babeldaub, owned the island's turtles. Consequently no turtle could be caught while on the island (green turtles nest there) and no turtle eggs could be dug. I do not know if this taboo is still in effect. Palauans also told me that in certain areas people were not supposed to kill a turtle until it had laid several batches of eggs. It was also reportedly the law in certain parts of Palau to leave some of the eggs to hatch when a nest was dug up.

In the mid-1970's hawksbill turtles could be seen on almost every dive in many areas of Palau Lagoon, and juvenile green turtles were not uncommon, especially along the outer reef slope. Nevertheless older Palauan fishermen seemed unanimous in their opinion that turtles were far less abundant than they had been 10-20 years before, with a decrease in the numbers of large green turtles being especially noticeable.

According to a Palauan conservation officer, taking of eggs by Palauans decreased in the 1960's after a turtle hatchery was set up and efforts made to educate Palauans concerning the need for turtle conservation (Helfman, 1968). The hatchery has since been discontinued, along with relevant education programs. Eggs are reportedly heavily exploited. Pritchard (1982) states that 80% of the eggs laid in Palau are harvested. He does not indicate the source of his data.

One old, conservation-conscious chief told me in 1974 that whereas his authority to enforce Palau's traditional laws was acknowledged by his people, his attempts to make them obey government conservation laws was not always heeded. As an example, he told me of chiding a young fisherman for bringing in an undersized turtle, only to be told that this was none of his concern. I am uncertain as to whether any traditional Palauan customs that contribute to turtle conservation are still practiced today.

A few fishermen in Palau respect government laws concerning harvesting of turtles and eggs. Many do not. Some, especially younger fishermen, are not even aware of these laws.

As with most other islands in Micronesia, it is not possible to gauge current harvest rates nor estimate the 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 them, Tobi, Sonsorol and Pula Ana 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 occur on Tobi, Sonsorol and Pulo Ana. But the main rookeries for green turtles in the Palau district are at Helens 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 fishhooks. Line fishing played a very important part in 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 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 their 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 1970's. 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.

YAP DISTRICT

The Yap District consists of the main Yap Islands plus a number of outlying islands and atolls. The latter include the islands of Satawal, Fais, and Gaferut and the atolls of West Fayu, Elato, Olimarao, Faraulep, Ifaluk, Woleai, Eauripik, Sorol, Lamotrek, Ulithi and Ngulu.

Yap

Turtles do not seem to be very abundant around Yap itself. (But, as will be discussed below, turtles nest on a number of outlying islands and play important roles in outer island cultures.) Traditional Yapese fishing rights are very complex and have never been adequately described. Traditionally in Yap certain high ranking estates (tabinaw) had the right to turtles caught on certain fishing grounds (Anonymous, 1961). Certain individuals or groups might possess exclusive rights to particular fishing methods or particular species within the boundaries of fishing grounds owned by others. Thus a fisherman finding a turtle in his fish weir would be obligated to present it to the owner of sea turtles in the area. By 1961 this requirement was no longer rigidly observed, but violations were nevertheless not openly displayed (Anonymous, 1961).

According to Muller (1917) turtles caught in Yap waters had to be taken to certain specified localities from which they were distributed by authorities. The chiefs, he says, got the breast of the turtle. "The capturer may do any kind of work; the killer must refrain from noise for three days."

In Yap it was believed that burning of the shell of the hawksbill turtle causes leprosy. The Yapese word for hawksbill turtle and leprosy is the same - darau.

Anonymous (1961) states, "There seems to be no apparent design on the part of the Yapese to conserve turtles. Instead the intent is that they should capture as many as possible and collect their eggs as well..... Most turtles are captured ashore during the breeding and laying season but the number captured each year by this method is not excessive.

Yap Outer Islands

McCoy (1974, 1982) has provided for the outer Yap Islands, especially Satawal, the best summary of information concerning traditional use of turtles that is available for any island group covered in the present review. (Nevertheless even this account falls short of being comprehensive or adequate for management purposes).

Turtle Catching and Harvesting of Eggs

For many years the people of Satawal have sailed to the uninhabited atoll of West Fayu, 47 miles away, to exploit the resources there. All fish and turtles taken there are recognized as the property of all Satawalese, but are placed at the disposal of the chiefs for distribution.

McCoy (1974) described the star calendar used by the Satawalese to determine mating and nesting seasons and thus to determine the appropriate times for trips to West Fayu. The following is his account of the catching of green turtles there.

"If the island is reached at night, as is often the case, one of the younger members of the crew immediately jumps off in shallow water and proceeds to walk around the island looking for nesting turtles or signs of nesting. If one is spotted on the beach, it is flipped over immediately. This sets the tone for the remainder of the stay, as each night various men are delegated the task of watching for nesting turtles as well as those that might be swimming in the shallows near the island.

"During the day, a close watch is kept for mating turtles within the lagoon. If mature turtles are spotted a canoe races to the position. The men affix large hooks to strong lines and then place the hook in a notch in the end of a piece of bamboo or stick approximately six feet long. The ends of the lines are then tied to a large boom carried on the canoe or, if the line is not long enough, tied to the canoe itself. Two men are given the responsibility of silently swimming up behind the mating turtles with the hooks. They then swim under the mating turtles, each man hooking one with the hook in the bamboo into the skin on the turtle's neck. A sharp watch must be kept for sharks which occasionally cruise around mating turtles and take nips off their flippers. For the most part, mating turtles are oblivious to what is taking place around them. The swimmers are usually successful in their attempts. Once hooked, the turtles immediately sound and a tug-of-war ensues, with the turtle usually losing in the end. Oftentimes the necessary hooks, lines or other paraphernalia for this type of capture are not available. This happens most often when canoes which are on fishing voyages sight mating turtles. In this case, the men still swim up to the unsuspecting turtles, grabbing them in a "full nelson" hold from the underside. The man's hands are then placed under the chin of the turtle and force its head back, minimizing the chance of being bitten. Other men then jump off the canoes with whatever ropes are available and attempt to tie the front flippers in a manner which will allow them to drag the turtle on board. This is a much more dangerous and less successful operation than the hook and bamboo pole method.

"During moonlit nights on West Fayu, it is also possible to tether a previously captured female to a tree, and allow her to swim in the shallows around the island. Men then climb into trees near the water's edge and wait for her to attract mates. This method, known as efitefit, is more successful on an island like Pikelot where there is no lagoon, but is practiced elsewhere as well.

"Although the methods described are obviously not the best ways of capturing turtles from a conservationist's point of view, it must be remembered that the people here are procuring food for themselves and their

families in a never-ending struggle against a sometimes hostile environment. It should also be noted that the people of Satawal are concerned directly with their own survival and means of procuring food are ultimately justified in their eyes by the immediate results produced."

McCoy (1974) states, "Unlike the islands of Lamotrek, Woleai, and others to the West, the people of Satawal have retained much of their canoe building and navigating skill. Much of this is due directly to the need to journey to West Fayu for turtles. In the islands to the west, where lagoons offer larger amounts of sea fauna and the opportunity to utilize motorboats, much of this traditional knowledge has been discarded. In many ways, this can be seen to have a direct effect on the harvesting of turtles.

"For example, the uses of motorboats in Lamotrek and Elato have meant that turtles are more vulnerable during all seasons in which they are present. Periodic times of calm weather prevail during the summer months which prohibit the people of Satawal from voyaging to West Fayu. During these periods, motorboats may be effectively used on Lamotrek and Elato for the purposes of hunting turtles. During one period on Lamotrek in 1972, motorboats journeyed to the various islands in the lagoon and Namoniur, capturing ten to twenty turtles on different occasions and returning them to Lamotrek. For the same number to be harvested on West Fayu by the people of Satawal would mean a major expedition by a flotilla of canoes which might be gone from the island for a week to a month."

The introduction of motorboat to the island had occurred only within the five years prior to McCoy's (1974) paper. This, he states, "has meant greatly increased pressure on the turtle populations in all of the areas visited by inhabitants of the central Carolines, with the possible exception of Gaferut."

Occasionally the Satawalese visit the islands of Olimarae and Elato and obtain turtles there. To do so permission has to be sought from the chiefs of Elato or Lamotrek.

The Satawalese are also familiar with turtle nesting on East Fayu in the Truk district. The islands with which the Satawalese are familiar stretch almost 400 miles roughly in an East-West chain. These islanders say that nesting occurs first on the islands to the east and then proceeds westward in sequence (McCoy, 1974).

McCoy (1974) describes an unusual feature of Gaferut Island and its influence on turtle-catching there: a reef extension to the northwest side of the island "contains a large, deep hole big enough to accommodate many large turtles. The turtles often stay in this natural hole during the day or days preceding their nesting. A standard method of capture on Gaferut is to silently sneak up on this depression in the reef and capture the turtles resting there."

Customs and Utilization

According to McCoy (1974) the taking of turtle eggs was not covered by taboos, and the exploitation of the resource has continued unchecked in almost all islands in the Central Carolines. Local inhabitants believe that the sea has been and always will be an adequate provider for all things. "In my

discussions with various inhabitants," states McCoy (1974), "none expressed great concern over the taking of eggs or, when concern was expressed, it was always by a bird-in-the-hand philosophy."

Hijikata (1941) stated that on Satawal Island the hawksbill turtle was treated like a god and could not be caught or eaten. If someone killed or touched one, he was completely isolated from other people for two months. He built a hut by the shore and lived there in isolation. His food was prepared for him by members of his family and brought to him on the beach. (I have been told by islanders that a similar attitude toward the hawksbill prevailed at Ifaluk Atoll.) There are no legends or myths about the hawksbill turtle nor any rites or ceremonies connected with it, just "an unreasoning fear and strict taboo," (Hijikata, 1941).

Nevertheless the shell was needed for many essential items such as fish hooks and combs according to McCoy (1974), who states, "all shell thus utilized was procured from other islands, principally Puluwat and islands to the east. Occasionally people from other islands would harvest hawksbill on Satawal for shell utilization. In such cases, they were required to build a small house on the beach away from the other houses of the island and to carry on their operations out of sight of the local inhabitants. Today on Satawal this taboo is no longer observed and the turtle is captured for utilization whenever sighted. As in the case of Ifaluk, many people on Satawal refuse to eat the meat, giving various excuses for doing so. This is another example of the "buffer" created by the Carolinians to protect their environment and the creatures within it. Hawksbills today are extremely rare throughout the area and Satawal is no exception. During the year 1972 only two were taken near the island, with only two more sighted at different periods. Those taken were consumed, with the carapace used to barter with passing ships." The "almost complete disappearance of hawksbills from the waters around Satawal since the pre-war taboos were lifted has not deterred islanders from attempting to capture those few that were sighted," (McCoy, 1974).

At the time of Hijikata's study in the late 1930's the green turtle could be caught and eaten on Satawal providing certain taboos were not infringed. Green turtles were not commonly found near the island but occasionally one was taken. If the eggs were found on the beach islanders examined them and, from their condition, determined when the turtle would next come ashore to lay again (see Palau section for details of method). They then kept watch for it, either turning it over when it came ashore or grabbing it or tying a rope to a flipper if caught in the water. A turtle that was caught in such a way could be eaten but certain taboos applied. In general only old persons, children or sick people could eat such a turtle. At the time Hijikata (1941) made his observations no hooks or other method that shed blood could be used to capture the turtle. This restriction is no longer in effect (McCoy, personal communication)

Persons who even touched green turtles which were caught at the island were confined for a specified period of time to the village and the seashore. Pots, knives, baskets and dishes which had touched the turtle were also taboo and had to be placed where people would not come in contact with them.

Green turtles caught at other islands were not subject to these taboos as long as they were brought back to Satawal alive. According to Hijikata (1941), even when turtles were caught away from Satawal, the fishermen "must not shed blood into the sea. When they sight a turtle, five or six men leave the canoes and swim after it. Two or three of the strongest and most adept go ahead and catch it with their bare hands, and the others follow towing a log about six feet long with a stout rope attached to it. They approach the turtle quietly, catch hold of it, and tie the rope to it and bring it back to the canoe. Turtles collected by this method, which may be as many as five or ten, are kept on their back alive until the day before the party is to return to Satawal." Then they were butchered and divided into large sections which are cooked on heated stones, then returned to Satawal.

The green turtle was taboo to pregnant women and those who had recently given birth. Women were not permitted to eat it until two or three years after bearing a child, and babies not until they were able to walk. Although this taboo still persisted in theory in the 1930's (Hijikata, 1941) it had by then become possible to be released individually from it by means of a ritual performed by a priest. Since most women followed this practice, the taboo was no longer really effective. If a mother had this rite performed while pregnant it automatically released her child from the taboo.

According to Hijikata (1941), "when the people go, as noted earlier, to the uninhabited islands of Pik (Pikelot) and Pugolo (West Fayu) to catch green turtle, a prayer is offered up to the god of the island. When I accompanied them to Pugolo Island, as soon as they arrived and got the mats and food ashore, the captains of the two canoes, each carrying one coconut, went off to the place of the island god to pray that there would be turtles.

The god of the island is called Waim. Formerly rang (turmeric) was brought and smeared on a large moele tree at his place. It may be that this was a sacred tree which was the master of this island. The god Waim probably dwelt in the tree. Nowadays they take only one coconut and hang it on a small tree in the vicinity or on a small pole and make their prayer. Until recently they would set up five or six poles in fronds of the moele tree and hang a small wreath made of the flowers of the moesor or lat tree on each one and then retire a short distance to sit and pray. Of course in approaching this place they would bend their bodies low from a long distance off, and as they drew near to it they would end up practically crouching." McCoy's (1974) description of turtle catching by the Satawalese on West Fayu implies that these rituals were subsequently abandoned.

All fishes and turtles at Pikelot and West Fayu are the traditional property of the Satawalese. However, although Pikelot is part of Yap District, it is exploited primarily by the people from Truk District. Whenever canoes from Truk District islands sail to the Satawal they invariably stop first at Pikelot, winds permitting, and bring turtles to Satawal.

According to McCoy (1974), "there are two Carolinian clans (of the eight represented on Satawal) which have turtles as their totems. The members of these clans, and their spouses had to observe taboos in addition to the island-wide taboos. One of these decreed that any pregnant woman or her spouse from either of these two clans (Sowen and Katamang) could not eat turtle." Catholic missionaries brought about the abandonment of these and many other traditional practices.

McCoy (1974), further states, "While on an island, the crews of the canoes usually feast on turtles if they are plentiful. In the case of captured mating turtles, the males are usually eaten on West Fayu, with the larger females saved for transport to Satawal. Turtles caught in the waters around the island are returned there alive and rested upside down on their carapace until such time as they are eaten or prepared for transport to Satawal. For the purpose of cooking, they are simply dragged to the beach and placed in a shallow pit. A small incision is made just in front of the left rear flipper and the small intestine and colon are pulled from the turtle and cleaned. The intestine is then cut into pieces and roasted on sticks over the fire. Usually the flippers are cut off before this operation to minimize the chances of injury to people preparing the turtle. Sometimes, however, a blow to the head renders the turtle unconscious and makes this operation unnecessary. The incision is then plugged with a handful of leaves and a fire is built on the plastron of the turtle. After cooking for 25 to 45 minutes, the plastron is ripped off and the turtle is then systematically butchered and the meat divided. All the meat and internal organs are eventually consumed and there is very little waste.

"If the turtles are to be transported to Satawal, they are left in the shade of the trees of West Fayu and can last ten days to two weeks without any ill effect. On the day that the canoes are being prepared for the return voyage, the turtles are dragged down to the beach and their flippers are securely tied together over the plastron. They are then hoisted onto the canoes and placed under mats or under the large seats of the canoes for the return trip to Satawal. Once on Satawal, they are placed under the authority of the chiefs, who ultimately decide how many and on what day they are to be consumed.

"During 1972, a total of 42 turtles was captured, three males and 39 females. Of these, sixteen were consumed on West Fayu, ten were partially consumed, and partially salted and returned to Satawal. The remainder were returned live to Satawal."

Turtles at Ultihi Atoll belong to some of the high lineages residing on the island of Mogmog. The chief turtle grounds are around the islands of Yorr and Gillab which are controlled by the chiefs of Falalop. Neither turtles nor their eggs may be taken from these islands without the consent of the Falalop chiefs. Turtles caught in the atoll are taken to these chiefs. They are killed and distributed with the head and intestines reserved for the atoll chief. Changes have taken place in their method of distribution to what is now believed to be more equitable although Mogmog still seemed to be getting the lion's share in the late 1950's. Turtle eggs need not be presented to the Mogmog chiefs (Anonymous, 1961).

The following incident indicates the rigor with which traditional taboos have sometimes been enforced, even in recent times. In 1974 a Mogmog chief discovered the remains of a butchered turtle on a beach frequented by the people of Falalop. The Mogmog chiefs angrily issued an edict, "No one on Falalop may touch the sea water for three weeks; do not use the sea for cooking; do not catch any fish or anything from the sea; do not use the sea for 'benjo' (toilet); do not swim into the sea; do not use, travel on or under the sea within or outside the lagoon in the vicinity of Ulithi atoll; there is nothing in the sea which you can eat."

Failure to obey the order could have resulted in the destruction of personal possessions including crops and houses. Sixty traditional lava lavas (traditional skirts woven from vegetable fibers) were demanded in atonement and subsequently presented, along with abject apologies, to the offended Mogmog chiefs. The proscription on any use of the sea applied even to U.S. government employees on the atoll, Peace Corps personnel, and a Jesuit missionary. Other government officials were warned by radio to stay away for the duration of the atonement. Never are U.S. or the Trust Territory conservation authorities accorded such obeisance!

Graduation ceremonies at the Outer Islands High School at Ulithi have involved the consumption of thirty or more turtles each year in the early 1970's according to McCoy (1974).

On Ifaluk Atoll, inhabitants until recently considered turtles as food for the chiefs only (Burrows and Spiro, 1953; McCoy, 1974). After their conversion to Christianity and renunciation of traditional taboos, many of the Ifaluk people still refused to eat turtle meat (McCoy, 1974).

Gaferut is said to be a favorite place for turtles, but Faraulep Islanders who own this uninhabited island ceased going there in 1950 when canoes travelling to Gaferut were caught in a storm and twelve lives were lost including that of the chief (Anonymous, 1961). The island is sometimes visited by the Trust Territory field trip vessel and occasionally passengers from Faraulep, Ifaluk and Woleai take turtles to be carried to their home islands. Ten to twelve turtles were taken in this manner on one evening in 1971 according to McCoy (1974). To a lesser extent Gaferut is also used by the people of Woleai and Ifaluk (McCoy, 1974).

Alkire (1965) states that turtles were roasted alive on Lamotrek Atoll after the flippers were cut off.

The people of Ngulu Atoll had to bring items of tribute, including turtle shell, when visiting Yap (Muller, 1917).

Baby turtles are occasionally kept as pets on various islands, sometimes being released, sometimes being slaughtered after reaching a certain size (e.g. Anonymous, 1961, McCoy, 1974).

Truk District

Truk District in the central Caroline Islands consists of Truk itself - a large almost-atoll with six fairly large high islands and many small ones - plus ten outlying atolls and four outlying islands.

Hawksbills nest on a number of islands in Truk Lagoon and on uninhabited islands in the lower Mortlock Islands. Green turtles, although present in Truk Lagoon, are not known to nest there (Pritchard, 1982).

The Trukese once used sennet nets, about 200 feet long and 10-20 feet wide, to catch turtles. On high nighttime tides the net would be tied to poles and suspended in the water. When a turtle was sighted the net would be drawn around it and closed (Bollig, 1927; Anonymous, 1961). According to Bollig (1927), "charms (safei) are attached at particular places on the net in order

to make the turtles go in the net there. The first turtle that is caught with a new net is the property of the one who made it." This method is no longer in use (Anonymous, 1961).

Le Bar (1964) states that inhabitants of Romonum Island, Truk, would visit the nearby islet of Fenesiic and look for tracks of nesting turtles. If some were seen, the islanders would camp and stand watch for up to a week, anticipating the return of the nesting turtles around the time of the new moon. Also during new moon periods Trukese speared turtles attracted to coconut torches at night. This technique was apparently learned from the Japanese (Le Bar, 1964). Captured turtles were killed by first cutting a hole in the outer flesh at the point between one of the rear flippers and the ventral shell. The entrails were removed through this hole (Le Bar, 1964).

An illogical method, but one found in use with minor variations here and there in Oceania, was used to predict when a turtle would return to the beach to nest. When a nest was found, the eggs were counted. The number of eggs over one hundred was believed to indicate the number of days after which the turtle could be expected to return to nest again (Anonymous, 1961). Divination and prophetic knot-tying was also used to determine the nights on which turtles would appear (Le Bar, 1964).

The Trukese made fish hooks and various ornaments, including pendants, women's belts and armbands, from turtle shell. Le Bar (1964) describes the method of making an armband: First the horny plates were removed from the carapace by applying heat from a burning coconut spathe. The shell was stored in a cloth wrapping. "In order to work the shell it was first washed thoroughly in salt water and then again wrapped in cloth, together with the leaves of Fagraea sp. (poonqas). Informants stated that these leaves, which had to be red in color, were used to bring out the mottling in the shell. A piece of about 1 1/2 inch wide and nine inches long was cut from a plate using a shark's tooth lashed to the end of a short stick. The same instrument was used to scratch a series of parallel longitudinal lines on one side of this piece. Next the piece was made pliable and soft for handling by boiling in a mixture of salt water and coconut milk. This was done in a (trochus) shell placed over a fire. Then the pliable piece was removed and bent in a circular shape with a slight overlap; a split stick was fitted across the overlap and the split ends bound together, thus holding the piece in shape until it cooled." The Puluwatese were considered the best workers in turtle shell in the area (Le Bar, 1964).

Today, in Truk Lagoon according to Pritchard (1982) a turtle can be obtained on demand within 24 hours by certain fishermen. Reportedly, hawksbills are killed for the use of their shell, which is sold in souvenir shops, although Pritchard did not see any for sale during his visit.

Turtle nesting has not been reported in the Western Islands of Truk District, all of which are inhabited (Pritchard, 1982).

Le Bar (1964) reports that the Trukese consumed turtle blood baked and eaten with breadfruit.

Fuchs (no date, but probably written in the early 1970's) states that turtle populations in Truk Lagoon were reportedly lower than in the past, and that this was probably due to overharvesting of eggs and adults. Conservation regulations regarding turtles, he states, were generally ignored. In contrast, Pritchard (1982) cites an informant as stating that the frequency of nesting in this area has not diminished in the past 50 years.

There were reportedly no special regulations or taboos restricting harvest rights to any particular individuals in Truk District (Anonymous, 1961). This assertion may be questioned in view of the dearth of information that is available on the use of turtles in the district. Hall and Pelzer (1946) stated that chiefs could place a restriction on fishing in observance of a death or, "because of depletion due to overfishing." Bollig (1927) states that copulating turtles could not be caught for fear that sudden death would ensue.

Traditionally the head of a captured turtle, certain strips from the belly, and the sexual organs were offered to one's own chief or the most important person on whose island or reef the turtle was captured. This custom is no longer observed (Anonymous, 1961).

Young turtles were often kept in wooden bowls for the amusement of children (Bollig, 1927).

The uninhabited island of Pikelot in eastern Yap District, is visited primarily by canoes from the Islands of Puluwat, Tamatam, Pulap and Pulusap in western Truk District in order to obtain turtles. The island is also visited by the Satawalese, the traditional owners (McCoy, 1982). Turtles are reported to be diminishing at Pikelot (Pritchard, 1982).

East Fayu, is a tiny island, but an important one for green turtle nesting. The traditional rights to these turtles belong to the people of nearby Nomwin Atoll (Pritchard, 1982).

Pritchard (1982) lists other minor nesting areas in Truk District.

Ponape District (including Kosrae)

Ponape District, in the eastern Caroline Islands, contains the high island of Ponape, its many satellite islands, and eight atolls. Until recently it also included the high island of Kosrae (previously known as Kusaie) the easternmost island in the Caroline Islands. Kosrae now has separate political status, but will be discussed for convenience in this section of the report. Two of the outlying atolls in the District, Nukuoro and Kapingimarangi, are inhabited by Polynesians, the only ethnically distinct groups of traditional inhabitants of the Caroline Islands.

Ponape is a volcanic dome surrounded by about 25 islands of both coral and volcanic origin in a lagoon bordered by a barrier reef containing many passes. According to Pritchard (1982) populations of sea turtles around Ponape appear to be relatively small and very little nesting, if any, occurs. (Gawel (personal communications) cites observations of some nesting activity, but the species has not been identified).

The following account of turtle harvesting on Ponape is extracted from Anonymous (1961). On outgoing tides during the windy season convergence zones create long lines of seaweed floating on the sea surface outside the reef. Turtles tend to feed on these detached macrophytes. Knowing this, Ponapans would patrol these strips in their canoes. When a turtle was sighted someone would tie a rope around his waist, jump on the turtle and transfer the rope to a hind flipper so that the turtle could be boated by one of the other men.

During the calm season turtles were also captured inside the reef by jumping on them and stunning them (the implement used is not mentioned).

Certain marked areas of reef were baited with a type of seaweed believed to be attractive to green turtles. The fisherman would wait near the bait spot in order to spear any turtle that came to feed.

Sometimes several canoes would set out and lay a large net in the water in areas frequented by turtles. When a turtle was seen the net was manoeuvred so as to block their escape. Stones were then thrown to frighten the animal into the net.

When copulating turtles were sighted the male was captured but the female was left in the water with one flipper tied by a length of rope to a floating log. Any other male that subsequently engaged in copulation with the tethered female was also taken. Probably the most common hunting technique traditionally used in Ponape was simply to catch turtles when nesting.

Gawel (personal communication) states that Ponapeans today are generally familiar with laws protecting turtles but generally ignore them.

According to Anonymous (1961) "The actual capture of certain kinds of turtles or the collection of their eggs has never been regarded as the special prerogative of certain individuals but the use of the meat was quite rigidly specified. This was a favorite food to offer to Nanmwarki (highest ranking individuals on the island). The Nanmwarki and other high-ranking individuals had the right to confiscate a turtle or its eggs from a fisherman who had failed to offer them to the Nanmwarki. The high-ranking people had certain property rights to turtle meat and eggs. Punishments were meted out to individuals who failed to offer the meat or eggs to appropriate high-ranking persons, especially the Nanmwarki. A person neglecting this traditional custom might be exiled from his land, have his house burned, be forced to make prolonged atonement feasts to the Nanmwarki or even be killed.

Anonymous (1961) states that in the old days there were several cases of raising turtles in captivity, but the meat of such turtles was not valued highly. During Japanese times, several individuals raised turtles under government sponsorship and special pens were constructed for the purpose. On Mokil Atoll such pens were still kept for this purpose in the late 1950's. I do not know if this still holds today.

Ornaments, containers and tools were made from turtle shell according to Anonymous (1961). This assertion undoubtedly refers to the shell of the hawksbill since green turtle shell is too thin to be of use in this connection.

"Apparently the only turtle rookery of importance in Ponape District is Oroluk Atoll", (Pritchard, 1982). Once uninhabited, it has been occupied by 10-20 people from Kapingamarangi since the late 1960's. The consequences, states McCoy (1982), have been startling: "The inhabitants have built a stone holding pen, and captured turtles are placed within the pens to await the government field trip ship which calls about six times per year. Until recently turtles were loaded aboard the field trip vessel for return to Ponape, where they were either sold or eaten in Polynesian villages there. The enforcement of the U.S. Endangered Species Act has put a stop to commercialization." In 1975 the inhabitants of Oroluk reported that the numbers of turtles nesting in the past two years had dropped considerably. This may have been due to human disturbances, especially the use of campfires and display of lights on the island at night (Pritchard, 1982).

According to Niering (1963) turtles had once been an important source of food on Kapingamarangi but had more recently become rare in the area.

There seems to be no published information on traditional fishing on Kosrae. According to Gawel (personal communication), any traditional marine conservations measures that may have existed there are no longer in evidence. Foko Pe Beach is the only regular nesting site today on Kosrae. Although remote from settlements it is regularly checked by turtle hunters. Turtles are also occasionally speared, harpooned or grabbed in shallow water. According to Gawel (personal communication) the present numbers of turtles in Kosrae are too low to allow any commercial harvesting, and "even permission of subsistence catches should be questioned,"

Marshall Islands District

Unlike the other districts covered in this report, where high volcanic islands are common, the Marshall Islands consist entirely of low coral islands, most of which are the constituents of atolls. Twenty nine atolls and four isolated islands are found within the area. The atolls are aligned roughly in two parallel rows, the northeastern Ratak Chain and the southwestern Ralik Chain.

Pritchard (1982) provides a useful description of the distribution of nesting beaches in the district. Nesting of green turtles is concentrated on uninhabited islands, but limited nesting is widespread on the more remote and uninhabited islets of larger inhabited atolls. Pritchard (1982) states that Bikar Atoll has the largest nesting population, probably followed by Bikini and Taongi Atolls. Ebon was reportedly the best spot for catching turtles in the water.

A number of the more northerly atolls in the Ratak Chain have been used traditionally as game reserves by the Marshallese. Periodically turtles were harvested there, with the chief "opening the season" on the first visit of the year (Anonymous, 1961).

Tobin (1952) described the elaborate ritual attending this event on the isolated island of Jemo. Divine sanction was requested before the landing party began its search for eggs. This entailed carrying a coconut leaf and walking single file behind the chief, stepping in his footprints, as the landing party walked towards a sacred tree in silence. Women had to hold mats

over their heads. Upon reaching the tree each man placed his coconut leaf on a leaf branch, sat down and waited for a breeze to blow the leaf off.

Once this condition had been satisfied, the party progressed to a special place where a small rare plant grew. Three yellow and three green leaves from the plant were pounded together and the extracted juice drunk by all. This was to prevent anal bleeding and diarrhea which might result from the unaccustomed meal of turtle and birds' eggs that was anticipated. Turtle eggs were then gathered independently.

Before eating, everyone reassembled before the sacred tree where the chief or his representative uttered a special chant. As the four cardinal directions were named in the chant, four eggs were thrown in each of these directions as an offering. The eggs were recovered and the chanter consumed all of them. The remaining eggs were then divided and eaten.

Another chant was used to obtain supernatural aid in attracting turtles ashore.

While on the reserve island sexual intercourse was forbidden, as was the use of normal Marshallese language.

After this initial trip was made by the chief or his representative, anyone could travel to these islands during the rest of the season.

Tobin (1952) states, "Rather than allow people to swarm all over the island, possibly frightening away nesting fowl and egg-laying turtles, the iroij (chiefs) and senior people led the way and the food gathering proceeded in an organized, methodical fashion."

Missionaries discouraged such customs. The sacred tree on Jemo Island was cut down for boat timber and by 1952, Tobin stated, "people gather turtle eggs and birds' eggs, etc., at any time of year and walk wherever they wish on Jemo. None of the taboos are observed as far as may be determined. This is true for the other bird islands as well. This religio-economic pattern clearly illustrates the close affinity of the aboriginal Marshallese relation to the ecology."

Tobin (1952) states that distribution of turtle flesh according to a specified traditional pattern is no longer followed.

On Enewetak Atoll green turtles are seen regularly but are not numerous (personal observations). Some nesting occurs there (Pritchard, 1982). The traditional Enewetak leaders decreed that only some of the turtles sighted were to be taken, so as not to overharvest. This custom was transferred to Ujelang Atoll when the Enewetakese were moved there by the U.S. military (Tobin, 1967).

According to Hiatt (1951) there was no regular turtle fishery on Arno Atoll. Green turtles were not common and are caught only occasionally and by chance. Hawksbill, he states, were even rarer than green turtles. Although occasional references to the use of turtle shell for ornaments in the Marshall Islands can be found (e.g. Kramer and Neverman, 1938) this reader gains the impression that hawksbill turtles were not as frequently captured here as they have been in the Caroline Islands.

Erikub is an uninhabited atoll near the inhabited atoll of Wotje. The Wotje people, when they caught a female turtle on Erikub, would tether it in shallow water so that it would attract males. The males were captured when they mounted her (Pritchard, 1982). It should be mentioned here that this technique, used in various parts of Oceania, only works during the breeding season, which commences prior to the nesting season and extends into the early part of the nesting season.

Mariana Islands

The Mariana Islands, in the northwest corner of Micronesia, traditionally constituted a single cultural sphere. But today they are divided politically into island of Guam, which constitutes a U.S. Territory, and the U.S.-affiliated Commonwealth of the Northern Mariana Islands. The latter include the inhabited islands of Saipan, Tinian, Rota, Alamagan, Pagan and Agrihan, and the uninhabited islands of Farallon de Medinilla, Anatahan, Sarigam, Guquan, Aquijan, Almagan, Asuncion, Maug and Farallon de Pajaros.

Information on the Mariana Islands that is relevant to this review is scarce. This is due at least in part, to the grim history of the islands. We know only the bare outlines of the traditional culture of the original Chamorro inhabitants because Spanish colonists reduced the population by more than 90% and shifted the remainder to Guam. They left few records of traditional Chamorro life. "Two hundred and thirty years of Spanish-Catholic rule transformed the Mariana Islanders so thoroughly that their Micronesian heritage was barely discernible," (Oliver, 1961). Saipan, now the capital of the Northern Marianas, was unoccupied for over a century after the removal of the Chamorros by the Spanish. Today no pure-blooded Chamorros remain in the Marianas Islands (Bowers, 1951).

De la Corte (1870) noted that among the valuable marine products that the Marianas did not produce, was "tortoise shell", although attempts had been made 40 years earlier to establish an export market for it. This may be the only surviving historic reference to sea turtles in the Marianas.

Both green and hawksbill turtles nest in the Marianas Islands, but apparently only sporadically and in small numbers (Pritchard, 1982). This may be due in part to the scarcity of suitable beaches in the northern Marianas (Pritchard, 1977) and to human activity along the coastline of Guam. Reports have been made of greater than usual nesting activity in Guam every third year (Molina, 1979). Large turtles were consistently seen in Guam waters during 12 areal surveys in 1975 (Anonymous, 1975). But turtles seem to play a small role in islander's diets, at least in the past decade. No mention is made of sea turtles by Jennison-Nolan (1979) in her study of seafood exploitation in Guam. During 13 years on Guam Jennison-Nolan (personal communication) recalls turtle meat being served at fiestas (very common events on Guam) only twice. Similarly Callaghan (1978) makes no mention of turtles in his study of seafood consumption on Guam. This is despite the fact that prior to 1979 there were no regulations controlling the taking of green turtles on Guam.

According to Pritchard (1977) "very few Guamanians are expert at spearing sea turtles, with the exception of a few old timers, and nets are never used nowadays for catching turtles. To the average fisherman, capture of a turtle is looked upon as a fortunate bonus that may add greatly to the value of his catch. In former times, turtle blood was looked upon as a cure for a great

variety of diseases, including asthma and tuberculosis." Hendrickson (ms, cited in Pritchard, 1982) states that turtle eggs were harvested in Guam more commonly before the second world war. His comments seem to imply that nesting was more widespread in those days.

A sizeable population of Carolinian immigrants live in the northern Marianas. Their fishing activities come closer to those of a traditional subsistence type, judging by my observations, than do those of the more commercially oriented inhabitants of local origin. A significant number of fishermen I interviewed from both groups seemed unaware of existing marine conservations laws - especially the laws relating to the taking of turtles (Johannes, 1979).

AMERICAN SAMOA

American Samoa, in the Central South Pacific, consists of the inhabited high islands of Tutuila and Olosega, the smaller uninhabited high islands of Ofu and Tau, and uninhabited Rose Atoll. Remote, low-lying, Swains Island, is inhabited by Tokelauan people but administered from American Samoa. The people of the two nearby islands of Western Samoa are of common cultural origin with American Samoans but politically separate. American Samoa is a dependency of the United States; Western Samoa is an independent nation with close ties to New Zealand.

Although traditional fishing in Samoa has been the subject of a number of valuable studies, little has been written specifically concerning turtles. Buck (1930) describes a Samoan turtle net used in the village of Ngataivai on Savai. It was employed in an area where there was no reef. Lookouts on the coastal cliffs would signal fishermen in canoes when a turtle was spotted. The net was dropped in a line parallel with the shore opposite the point indicated. The men then jumped overboard and formed lines from the ends of the net to the shore. They beat the surface of the water with sticks as they gradually pulled the ends of the net together enmeshing the turtle.

Buck (1930) states that the special monopoly exercised by the high chiefs of eastern Polynesia over turtles does not seem to have held in Samoa, although a traditional Samoan story suggests that a certain group of expert fishermen may have held such a privilege at one time.

Grattan (1948) states that the turtle was sacred in Samoa: "i'a sa, the sacred or forbidden fish, which no fisherman may retain for his own private or family use without risking the grave displeasure of the local ranking chief and of the whole community; such an offender would be punished as custom provides either by a heavy fine of foodstuffs such as pigs and taro, or even by banishment for a time from the village. Such i'a sa are the turtle (laumei), the shark (malie) and the ulua

"When the personal catch includes any of the i'a sa, these must be set aside and presented formally to the leading chief for distribution by the orators to the whole village as represented by each family. Where a title of a great chief has status in the whole of a district, any i'a sa caught in that district should be taken and presented formally to him. He and his orators will probably then direct that fish be apportioned in such a manner as to make suitable acknowledgement to the village to which the successful ranking chief belongs.

"When a ranking chief is absent from his village or district, i'a sa must still be presented to the village when caught rather than retained for personal use by the fishermen or his family. Frequently turtle or shark fishing is arranged as a village activity and the catch is divided up amongst all the families concerned.

"The major divisions in the cutting up are the head (ulu), the forequarters (sagamua), the hindquarters (sagamuli) and the rest of the carcass (sic) (tua) that remains. If it is not cooked before being presented, it will be cooked before it is divided and distributed. The important parts, the flippers ('apa'apa) from both the forequarters and the hindquarters, are presented to the chiefs. The head is allotted to the taupou and the auluma. The remaining parts of the forequarters and hindquarters together with the rest of the carcass (sic) are divided amongst the chiefs and orators. The juice (suapeau) that collects in the shell during cooking is highly prized, being dipped out and consumed by the chiefs and orators or divided amongst all the families of the village."

According to Finsch (1893), "the blue-black fat on the inner side of the upper thigh, called vivi, is considered especially tasty and has a flavor somewhat like that of veal or venison, but is much richer. It is like a part of the intestines, called medjinal, a favorite dish of the chiefs and always served to them."

A massive infusion of American funds in the past two decades has swamped the traditional culture in American Samoa. Among those things being lost, in consequence, are traditional elements of environmental control. The reefs are now heavily overfished. Only about 17% of the seafood consumed on Tutuila is locally caught; canned Japanese mackerel is a major import (Wass, 1982). Although U.S. federal law prohibits the taking of sea turtles and their eggs it is not effectively enforced (Wass, 1982). Wass (letter to George Balazs, Dec. 10, 1981) estimates that the fishermen of Tutuila and Olosega (where the bulk of the population of American Samoa resides) take about 50 turtles per year. He states that fishermen on Tutuila believed that turtles had declined considerably in numbers in the past five years.

It is not known from how wide an area turtles which are seen in the waters of American Samoa originate, but nesting activity today in the Samoan Archipelago is not great. Only hawksbills nest in Western Samoa, and only at three beaches, two of them very small. Many of the beaches which were once used for nesting in Western Samoa are no longer used, probably owing to overharvesting of eggs and adults (Witzel and Banner, 1980). (Travis (1971) attributes a large part of the apparent decline in abundance of sea turtles in the area to harvesting by visiting European sailing ships).

A hawksbill turtle hatchery was set up in 1971 in Western Samoa. By 1982 opinion was widespread among fishermen I interviewed on Upolu that the number of turtles in their waters was increasing. In 1982 the turtle hatchery was closed.

Except for scattered nesting by green turtles in the Manu'a group, the only green turtle rookery in the Samoan Archipelago is at Rose Atoll. One 19th century report suggested that "a great number of turtles" came to lay there (Graeffe, 1873). But recent observations suggest that the nesting population today may not be very large (e.g. Travis, 1979).

A series of interviews conducted by G. Balazs and W. Pedro in October 1982 suggested that there was generally little interest among Samoans on Tutuilla and Olosega Islands in catching and eating turtles. However Balazs (personal communication) believes that there may still be some legitimate subsistence demand for sea turtles among the 50 or so residents of Swains Island.

HAWAII

The Hawaiian islands stretch in an almost linear chain from 19° to 28° N. lat., a distance of 2,450 km, in the central north Pacific. The seven southernmost, large, high islands are all inhabited. From there northward stretch a series of small volcanic and low coral islands, atolls and submerged reefs and banks.

Traditionally Hawaiians were excellent, knowledgeable fishermen, and more has been probably written about traditional use of marine fauna in Hawaii than for any other area covered by this review. Surprisingly, however, comparatively little information has been recorded on traditional Hawaiian use of sea turtles. Nevertheless the available information indicates that turtles were important in precontact Hawaii. The turtle, or "honu", figures in many Hawaiian chants and stories. Captain Cook observed their use as food by Hawaiians.

The difficulty of piecing together a useful description of the traditional use of sea turtles by Hawaiians is illustrated by the following: According to an Hawaiian historian writing in 1898 (Malo, 1951) eating green turtles was traditionally forbidden to women, who would be killed for breaking this taboo. Dagget, an American minister working in Hawaii, stated in contrast, in his introduction to King Kalakaua's "The Legends and Myths of Hawaii," published in 1888, that eating green turtle was forbidden to all but priests and chiefs. Two American ichthyologists who studied the fisheries and fishing laws of Hawaii also state that "squid, turtle, and two or three species of birds could be eaten only by the priests and taboo nobility," (Jordan and Evermann, 1902). They give no source for this information; possibly they obtained it from Kalakaua's book, published 14 years earlier.

In contrast to both of the above assertions, a contemporary Hawaiian scholar, Piianaia, is quoted in a popular magazine article as believing that turtle was not limited to the upper classes, and was common food, and for both sexes (Markrich, 1983). He states that Daggett was an "outsider" writing about customs that had disappeared two generations earlier. "You will find," states Piianaia, "that there are structures like fishponds for the holding of turtles on all the islands, and that what they did was capture them and make them available when they were needed. Once a turtle was held for a chief, that was it, nobody else could eat it. But outside of that, anyone could catch turtle. I know of no edict, except perhaps for seasonal ones, that stopped people from taking turtles."

Piianaia acknowledged, however, that the biggest and best turtles were reserved for the chiefs. Waimanalo Pond, or Pahonu, which means "home of the turtle" was located about 14 miles from Honolulu and served as a source of turtles for Oahu royalty. In the late 1800's turtles from Pahonu were placed in sacks and carried on horseback at full gallop to Iolani Palace on Honolulu

to be prepared for dinner (Markrich, 1983). According to one informant, the alii (chief) in this district "was so fond of turtle meat that any one in the district was required to bring any turtles they caught to him (Handy and Handy, 1972).

Turtles were the amakua or ancestor gods of certain families in Hawaii. These families were strictly forbidden to harm or eat turtle (e.g. Pukui, 1972).

The traditional Hawaiian kapu (taboo) system, which contributed to the conservation of marine animals in the islands, gradually eroded after western contact and little of it remained by the mid-1800's (e.g. Titcomb, 1972).

Malo (1931) and Stokes (1906) state that turtles were captured in Hawaii with nets made from bark fibers. The fibers were extracted by scraping the bark with the bevelled edge of a turtle's pleural bone. Turtles were also captured by hand and with spears or harpoons. Cobb (1905) describes a device consisting of two large hooks lashed to a stone attached to a long line. It was apparently used to hook turtles both from shore and by swimmers diving on turtles resting on the bottom and thus easily approached.

Hawksbill turtle shell was used only to a minor degree in Hawaii for making fishhooks judging by archaeological evidence (Emory et al., 1968). It was also used for the disease called 'ea and for making combs and fans (Pukui and Elbert, 1971).

Recently in connection with efforts to repeal U.S. Federal laws forbidding the capture of turtles in Hawaii, the claim has been made publicly that turtles were traditionally employed to clean fishponds of unwanted algae. I have been unable to find any reference to this practice in review articles on Hawaiian fishponds (Summers, 1964; Cordover, 1970; Kikuchi, 1976) nor in articles referred to therein, nor in the literature pertaining to other island groups in Oceania.

Balazs (1980) states that judging by traditional legends and chants, Hawaiians were apparently not aware of the northwestern segment of the Hawaiian Archipelago, except for Nihoa, prior to European contact. Exploitation was therefore limited to the main, southern islands, although archaeological evidence suggests that small groups of Hawaiians (or other Polynesians) may have fished and perhaps hunted turtles around the islands of Nihoa and Necker Reef.

Today 90% of the green turtles that nest in Hawaii do so at French Frigate Shoals north of the main populated islands (Dizon and Balazs, 1982). Only occasional nesting still takes place in the main inhabited islands. This is probably a legacy of generations of intensive exploitation in the inhabited islands, since there are many apparently suitable beaches for nesting there.

CONCLUSIONS

It is not difficult to rank the different Pacific island areas under U.S. jurisdiction on a scale of departure from traditional dependence upon the sea, including sea turtles. Hawaii is clearly the most westernized and least traditional, followed closely by Guam and American Samoa (with the possible

exception of Swain Island). The Northern Mariannas are not far behind, with little evidence of significant dependence upon sea turtles.

Only in the Caroline and Marshall Islands do sea turtles still play essential roles in the lives of significant numbers of people. And even here this dependence is far from universal. Sea turtles do not appear to be essential to either cultural or nutritional well-being on most high islands or district population centers. Even in the Palau Archipelago, where an impressive reservoir of expertise concerning sea turtles suggests their former importance, only a very few handicraft makers would suffer, I suspect, if turtles became unavailable today. Here, as around many high islands, turtles are now hunted more or less like deer, for sport. A turtle for the pot is now an occasional treat, not an essential ingredient in Palauan life.

It is mainly among some of the remoter low islands of Micronesia that sea turtles remain important. McCoy (1982) and Pritchard (1982) point out that turtles contribute significantly to the cultural stability of some of the peoples of the central Caroline Islands and to their independence of the outside world. "The estimated maximum contribution to the protein (intake), perhaps 40 pounds per person per year, is not nearly as important as the cultural role described," (McCoy, 1982).

The work of McCoy and others suggests that traditional taboos and ceremonies relating to the taking and consumption of turtles have almost certainly contributed to smaller numbers being taken than would otherwise have been the case. But these traditions are fading. Moreover, island population pressures in Micronesia are increasing rapidly. On Satawal, for example, the population has doubled since the end of World War II (McCoy, 1982). These factors, coupled with the introduction of technology which makes sea travel faster and easier, all put increasing pressure on turtle stocks. The need for measures to conserve them thus also increases.

Therein lies a dilemma. The people of those islands on which turtles play a vital cultural role would suffer if turtles were denied them. But there will eventually be no turtles left if harvest rates continue to accelerate. At what point does the survival of a turtle stock dictate the implementation of conservation measures that are painful to those who depend upon turtles? No amount of study, in isolation, of subsistence use of turtles can answer this question. It requires, in addition, an understanding of sea turtle population dynamics more sophisticated than any that exists for any sea turtle stock in the world today.

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**A Review of Subsistence Uses of Sea Turtles in the
Central and Western Pacific with Respect to Federal
Regulations Authorizing a Subsistence Take of Green
Sea Turtles in the Trust Territory of the Pacific Islands**

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December 3, 1984

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Sea Turtles in the Trust Territory of the Pacific Islands

INTRODUCTION:

In 1978, the National Marine Fisheries Service (NMFS) and the Fish and Wildlife Service (FWS) added three species of sea turtles to the List of Endangered and Threatened Wildlife. The populations of green (Chelonia mydas) and olive ridley (Lepidochelys olivacea) sea turtles that nest on the Pacific coast of Mexico and the Florida population of green sea turtles were designated as endangered. Olive ridley and green sea turtles were designated as threatened in the remainder of their ranges, and the loggerhead sea turtle (Caretta caretta) was designated as threatened throughout its entire range. These species and three other listed species (leatherback, Dermochelys coriacea; hawksbill, Eretmochelys imbricata; and Kemp's ridley, Lepidochelys kemp) are managed cooperatively by the NMFS and the FWS under a Memorandum of Understanding that was formalized in July 1977. The NMFS has jurisdiction over matters affecting sea turtles seaward of the mean low tide line, and the FWS is the responsible agency for matters above the mean low tide line.

The protective measures implemented with the listing of threatened species closely paralleled the prohibitions that are mandated for endangered species. Six exceptions to the prohibitions were incorporated with the listing regulations (Title 50 Code of Federal Regulations section 227.72(a) through (f)). Threatened sea turtles may be taken for (a) scientific purposes or to enhance the propagation or survival of such species, (b) zoological exhibition or educational purposes, (c) aiding or treatment of sick, injured, or stranded specimens or disposal of dead specimens, (d) the operation of a

conservation program or research that is conducted by an employee of the NMFS, FWS, or a designee of those agencies, (e) incidental taking during fishing or research not directed toward sea turtles, and (f) subsistence uses of green sea turtles by residents of the Trust Territory of the Pacific Islands (TTPI).

The exception authorizing a subsistence take has been the subject of some controversy. In response to the requests from the State of Hawaii, an individual speaking on behalf of native Hawaiians, and the Territory of Guam, the NMFS reviewed the regulations concerning the subsistence taking of green sea turtles. During that review the NMFS examined the criteria that must be satisfied in order to authorize a subsistence take, the traditional uses of sea turtles in the central and western Pacific, and the status of green sea turtle stocks to determine if changes in the regulations were warranted.

BACKGROUND:

The subsistence exception (50 CFR 227.72(f)) allows the taking of green sea turtles in waters seaward of mean low tide for personal consumption by residents of the TTPI provided such taking is customary, traditional, and necessary for the sustenance of the individual taking the turtle and his immediate family. The sale or trade of turtles or turtle products obtained under this exception is prohibited. The NMFS and the FWS provided this exception because the inhabitants of the TTPI in outlying island areas were culturally and nutritionally dependent on green sea turtles (TTPI 1975, McCoy 1974), and the sea turtle stocks in the TTPI could sustain historical levels of subsistence taking (NMFS 1978, Pritchard 1977, McCoy 1974).

During the rulemaking process, Hawaii, Guam, and American Samoa recommended subsistence uses of green sea turtles be authorized for their citizens (NMFS administrative record). The State of Hawaii's recommendation was predicated on the fact that in 1974 they promulgated protective regulations (Department of Land and Natural Resources (DLNR), Regulation 36), which prohibited the taking of leatherback and hawksbill sea turtles for any purpose, prohibited the taking of green sea turtles for commercial purposes, and established a permit system and size limit for the taking of green sea turtles for home use. The State believed that these regulations provided adequate protection to the Hawaiian green sea turtle population and that Federal regulations should recognize the State's efforts to manage the population.

The recommendations from Guam and American Samoa were based on the history of taking sea turtles for home use in those areas and their belief that available information was insufficient to demonstrate that historical levels of take could not be sustained by the respective populations of sea turtles. The NMFS and FWS did not provide for subsistence or other domestic taking in Hawaii, Guam, or American Samoa in the final regulations because no specific information on cultural or nutritional dependence on green sea turtles was presented, and alternative food sources were available in those areas (NMFS 1978).

During a Western Pacific Fishery Management Council meeting in December 1981, several participants conducted an impromptu meeting to discuss prohibitions on the taking of green sea turtles in Hawaii. A Hawaii resident, speaking on behalf of native Hawaiians, expressed an interest in obtaining authorization for a take of green sea turtles by native Hawaiians for subsistence purposes and for use in controlling algal blooms in their fish

ponds. In a letter, dated December 22, 1981, to the Director, Southwest Region, NMFS, the State of Hawaii supported this individual's request and suggested that the NMFS review the subsistence regulation to ensure that its application throughout the Pacific Islands was equitable.

On February 2, 1982, the Governor of Guam wrote to the NMFS expressing concern that the subsistence exception for the TTPI created inconsistent and inequitable sea turtle protective measures in the Mariana Archipelago. The residents of the Commonwealth of the Northern Mariana Islands (CNMI) are included in the subsistence exception because the CNMI are part of the TTPI. The residents of Guam, the southernmost island in the Mariana Archipelago, are excluded from the subsistence fishery because Guam is a distinct territory. Guam is separated from the CNMI by a distance of only 45 miles, and historically Guam and the CNMI were part of the same culture. Discrete stocks of green sea turtles have not been defined in the western Pacific Ocean and it is reasonable to assume that the turtles throughout the Mariana Archipelago are from the same stock. The Governor concluded that there was no apparent geographical, cultural, or biological basis for the exclusion of Guam from the authorization for subsistence taking, and he requested that the NMFS review its regulation with respect to this inequity.

The NMFS was criticized in the correspondence requesting this review, for not providing an opportunity for local input to the rulemaking process that resulted in the listing of the green sea turtle. The justification for this criticism lies in the assumption that interested parties in the central and western Pacific Islands were not aware of, or chose not to participate in, the several opportunities to provide written comments and the fact that no public hearings were held in the Pacific.

CRITERIA FOR SUBSISTENCE EXCEPTIONS:

Review of the administrative record and recent correspondence regarding the subsistence issue indicated that the NMFS needed to provide a clarification of the criteria used in evaluating the need for a subsistence exception. The State of Hawaii, native Hawaiians, the Territory of Guam, and the Federal Government apparently have different perceptions of subsistence. The State of Hawaii refers to subsistence in terms of their regulation which permitted the taking of green turtles for home use (DLNR, Regulation 36). Permission to take turtles under regulation 36 was available to everyone and was not predicated on native rights or needs for sustenance. Native Hawaiians refer to subsistence take in terms of aboriginal rights, and Guam's request is based on the historic use of sea turtles by the residents of the island. The NMFS did not define subsistence in its regulations, but the regulations do require that subsistence taking be customary, traditional, and necessary for sustenance.

The Office of General Counsel, Southwest Regional Office, NOAA, conducted a legal review (Appendix A) of the definition of subsistence as it applies to native exceptions in the ESA and the Marine Mammal Protection Act, as it is defined by the International Whaling Commission, and as it is used in the regulation authorizing the subsistence take of green sea turtles. This review was prepared to provide guidance to the NMFS on establishing criteria for considering subsistence taking of green sea turtles in areas other than the TTPI.

The legal analysis of the various subsistence exceptions revealed some general elements that are consistently apparent in each of the exceptions. The two most important factors underlying a subsistence exception are the recognition that the survival of a culture depends upon its ability to

continue to exploit species of wildlife that have traditionally provided the necessities of life, and the proof that the wildlife populations could sustain traditional levels of harvest. If the survival of a culture is dependent upon the continued authorization to take from a population, then the survival of that culture is dependent on the continued existence of that population. .

Balancing cultural needs with biological requirements for survival of a stock has been the principal issue in preserving the Alaskan natives' right to hunt the endangered bowhead whale. The various subsistence exceptions are also founded on the principle that the taking is necessary for the sustenance of the taker and his immediate family. The availability of alternate food sources may be considered in determining to what extent a cultural group is dependent on a particular resource for sustenance. The availability of alternate food sources was one of the justifications for disallowing a subsistence take of green sea turtles in the Caribbean and Hawaii. Finally the use of wildlife in religious ceremonies that are important to the maintenance of a culture has been considered in providing for a subsistence exception.

The American Indian Religious Freedom Act of 1978 has some bearing on the subsistence issue in Hawaii because it recognizes and protects the rights of native Hawaiians to continue practicing their native religion. The language of this act and the legislative history indicate that the law was intended to protect ongoing religious practices, rather than to ensure the resurrection of lost or abandoned practices. The American Indian Religious Freedom Act does not mandate an exception, but does guarantee due consideration of native rights by a Federal agency in discharging its responsibilities. In the case

of the ESA, the continued existence of a listed species must be ensured before the taking of a threatened or endangered species could be authorized for traditional rites or ceremonies.

In re-evaluating the issue of subsistence taking of green sea turtles in the central and western Pacific the NMFS used three criteria:

(1) identification of a culture dependent on the taking of sea turtles for its continued existence, (2) evidence that the sea turtle population can sustain the harvest, and (3) documentation that the taking is necessary for the sustenance of the members of the cultural group in question. The availability of alternate food sources is considered in evaluating the extent to which a culture depends on a resource for sustenance. With respect to the Hawaiians, consideration is given to native religious uses.

SUBSISTENCE USES OF SEA TURTLES:

The NMFS held a series of public meetings in Hawaii, Guam, CNMI, and American Samoa and opened a public comment period to gather information on all aspects of the use of sea turtles for subsistence purposes in the central and western Pacific (48 FR 16925). The NMFS also issued a contract to review available information on subsistence uses of green sea turtles on islands under United States jurisdiction in the Pacific Ocean. The final contract report is incorporated in this document as Appendix C.

Only five comments were received that provided information on aboriginal Hawaiian uses of sea turtles or the role of sea turtles in the native Hawaiian religion. No comments were received describing subsistence uses of sea turtles in areas other than Hawaii. The comments for Hawaii included information indicating that turtles were used for food, medicinal purposes, and as a source of materials for the fabrication of tools and jewelry. One

commentator indicated that turtles were kept in fish ponds to control algal blooms. The importance of sea turtles in the native Hawaiian religion is indicated by references to sea turtles in chants, hulas, and legends. Prior to embracing Christianity, native Hawaiians practiced a pagan religion and each family had a aumakua (totem). The sea turtle was the aumakua of some families. One unpublished Ka'u chant and hula tells the story of a sea turtle leading a family to fresh water and becoming the aumakua of that family (comment from the Protect Kaho'olawe 'Ohana). One comment referred to a religious ceremonial use of sea turtles but did not describe the ceremony or indicate whether native Hawaiians continue to practice the ceremony. None of the commentators indicated whether they lived an aboriginal Hawaiian life style or whether they or other native Hawaiians relied on green sea turtles for sustenance.

The contract report submitted by Johannes (1984, Appendix C) on subsistence use of sea turtles in the central and western Pacific concludes that the harvest of sea turtles continues to be an essential cultural element only in the low islands of Micronesia. Other areas of the Pacific including Hawaii, Guam, American Samoa (with the possible exception of Swains Island), and the CNMI have departed from traditional values and there is little evidence of a significant dependence upon sea turtles.

Documentation of aboriginal Hawaiian rights is hampered by conflicting accounts in the literature. Malo (1951 cited in Johannes 1984), referencing an Hawaiian historian, stated that eating turtle meat was forbidden to women. Other accounts cited by Johannes (Dagget 1888, Jordon and Everman 1902) indicate turtles were reserved for use by priests and nobility. However, Piianaia (in Markrich 1983) suggested that these early accounts were attempts by outsiders to document customs that were no longer practiced and

therefore may not be accurate accounts. Piianaia contends that although priests and nobility reserved special rights and received special consideration, turtles were available to and utilized by all native Hawaiians.

Barnett (1960) wrote of the culture that persisted in Palau in the late 1940s. He described the use of sea turtle meat as strictly controlled by the chiefs. In Palau sea turtle flesh is a feast delicacy reserved for the grand entertainments of wealthy men. If a common man were to capture a sea turtle it would be presented to the chief who would either keep it and provide the man with a suitable reward or divide it and give a portion of it to the commoner. No common person would dare serve turtle without his chief's permission. Barnett's description cannot be extrapolated to Hawaii because Palauans are of Micronesian rather than Polynesian descent, but his description does provide an interesting compromise between strict controls described by Daggett (1888) and Jordon and Everman (1902) and the more liberal controls hypothesized by Piianaia (cited in Markrich 1983).

Johannes (1984) was unable to substantiate that aboriginal Hawaiians used sea turtles to control algal blooms in fish ponds. Turtles were kept in ponds temporarily prior to being slaughtered and probably grazed on algae while in the ponds. There are no documented accounts of an aboriginal practice anywhere in Oceania of capturing sea turtles to control algae.

Johannes (1984) gave a detailed account of traditional native use of sea turtles in American Samoa including rights of ownership and methods of distribution, but indicated that traditional culture has been swamped by a massive infusion of American funds over the past two decades. There may still be some legitimate need for sea turtles among the 50 or so residents of Swains Island for subsistence purposes.

Much of the traditional native culture in the Marianas (including Guam) was lost when the Spanish colonists reduced the Chamorro (native population inhabiting the Mariana Islands) population by more than 90 percent and moved the survivors to Guam. Two hundred and thirty years of Spanish rule had a significant affect on the Chamorros and by the early 1900s their Micronesian heritage was barely discernible (Oliver 1916 cited by Johannes 1984). Turtles seem to constitute a small portion of the diet of these islanders. Jennison-Nolan (1979) studied the use of seafood in Guam but did not mention turtles, and Callaghan (1978) makes no mention of turtles in his study of seafood consumption on Guam (Johannes 1984). The history of acculturation of the Chamorros and the limited use of the turtles in the Marianas does not indicate that there is a cultural dependence on sea turtles in the Mariana Archipelago.

STATUS OF STOCKS:

Concurrent with this review the Southwest Region, NMFS conducted a review of the status of all listed species of sea turtles in the Pacific and Indian Oceans (Lecky and Nitta MS). That review was conducted pursuant to Section 4(c)(2) of the ESA which requires the NMFS and the FWS to review the status of all listed species at least once every five years to determine if each species is listed appropriately according to its current status. The conclusion of the status review was that each species of Pacific and Indian Ocean sea turtle was listed appropriately and should be retained as listed. The information presented below is a more detailed presentation of the information accumulated on the status of green sea turtles in the central and western Pacific than could be made in the more comprehensive status review.

Hawaii. Hawaiian green sea turtles appear to be a distinct stock based on documented migrations between foraging areas and nesting areas, which are confined to the Hawaiian Archipelago (Balazs 1982). Over 90 percent of the nesting activity occurs at French Frigate Shoals. This French Frigate Shoals breeding colony has been monitored since 1973. The number of nesting females is the most reliable index of the status of a population because nesting females remigrate to the same nesting sites where they can be counted. There are some encouraging signs that the population has started to recover (Balazs 1983). The nesting population at French Frigate Shoals showed an increasing trend during the 10 year period from 1973 to 1982. However, the increase in size of the nesting population is not statistically significant (Wetherall 1983). Sources of mortality that may be affecting the recovery rate include poaching (Honolulu Star-Bulletin, October 31, 1982 p. A14, Kiser 1976, and several comments received during this review), natural predation (Balazs 1983) and entanglement in fishing gear and debris (Balazs 1982b., 1982c.).

Using population counts collected by Balazs, Wetherall (1983) estimated the annual recruitment of nesting turtles at East Island to be between 40 and 70 turtles. Extrapolation of this data results in an estimate of total annual recruitment to the Hawaiian nesting population of 80 to 140 turtles. This level of recruitment has not produced a significant increase in the Hawaiian population since 1973.

The State of Hawaii estimates that the annual take of sea turtles under a management program similar to the program conducted under DLNR's Regulation 36 would amount to about 22 turtles. This estimate is based on the number of reported takings during the four years the DLNR program was in effect and is likely to be low because it is not corrected for unreported takings and poaching which were known to have occurred (State of Hawaii comment on DEIS for

listing green sea turtles April 1, 1976, and Kiser 1976). The NMFS does not believe that the Hawaiian population of green sea turtles could sustain a harvest that exceeds 25% of its estimated replacement yield, particularly when that replacement yield has not produced a significant increase in population levels over a 10 year period.

American Samoa. Green turtles occur in the waters surrounding Tutuila and Manua islands but apparently in small numbers. Occasional nesting may occur on isolated beaches (Balazs 1982). Tutuila fishermen report that "turtles are considerably less abundant now than they were five years ago" (letter R. Wass, Office of Marine Resources, American Samoa to G. Balazs, NMFS December 10, 1981). Small numbers of turtles nest on Swains Island where they continue to be taken for consumption by the inhabitants. Rose Atoll has the largest nesting population in American Samoa, which probably consists of fewer than 100 turtles nesting per year (Balazs, pers. comm.). No information on the distinctness of this population is available.

Mariana Islands. Available information indicates that near Guam (southernmost island in the Archipelago) the number of foraging turtles is small and that nesting is sporadic. Utilization of beaches for recreation is a major factor affecting nesting on the Island. Tarague Beach is under military control and could be protected. That may be Guam's only hope for maintenance of such a valuable natural resource (Molina cited in Pritchard 1982). Few turtles nest in the CNMI mostly because there is a the lack of suitable nesting habitat. Saipan has several kilometers of beach but they are developed for tourism and not suitable for nesting. Dense turtle grass beds suggest good feeding habitat is available for green turtles. Stuffed immature turtles for sale in curio shops (Pritchard 1982) indicate an abuse of the subsistence exception in the CNMI.

COMMENTS:

Most commentators responding during the public comment period had interpreted the Federal Register notice that opened the comment period as a proposed rule and submitted comments that were either in support of or opposition to amendment of the subsistence exception. This section contains a summary of those comments. The NMFS' responses to the comments received are presented in Appendix B.

A total of 61 comments were received as a result of the hearings and comment period. Thirty-five of these opposed extending the subsistence exception to areas other than the TTPI. The most commonly cited reasons for opposition were that the sea turtle stocks could not sustain a subsistence harvest and no one outside the TTPI was dependent on sea turtles for sustenance. Nineteen comments supported authorizing a take of green sea turtles in areas other than the TTPI. Five comments provided biological or anecdotal information but made no specific recommendation for changing the existing regulations, and two comments from the CNMI recommended retention of the exception for the CNMI.

The comments received from the State of Hawaii favored an exemption for the taking of mature turtles for immediate family consumption. The basis for this comment is that there are indications that the green sea turtle population has recovered and that the State could restore its management program (DLNR regulation 36) to monitor and control such taking. The State comments do not propose limiting access to any particular group.

Three comments were received from Guam, all favored a subsistence exception for Guam. The basis for these comments is that there is no valid geographical, cultural, or biological rationale for excluding Guam from the

rest of the Mariana Islands with respect to the subsistence exclusion. No information was presented with respect to the criteria set out for subsistence exceptions discussed in a previous section of this document.

One comment was received from a resident of American Samoa opposing a subsistence authorization for Samoa. No official comment was received from the Government of American Samoa.

DISCUSSION:

The comments in favor of providing additional subsistence exceptions indicate that the NMFS is being requested to authorize a take of green sea turtles in Hawaii and Guam for home use by the general public rather than for the maintenance of a native culture. This exceeds the scope of the subsistence exception for the TTPI. The comments received from the public and State and Territorial governments, as well as the results of the review of subsistence practices undertaken by the NMFS did not identify an existing native culture that is dependent on the taking of green sea turtles for its survival other than the Micronesian groups included in the existing exception. The Hawaiian, Chamorro, and Samoan cultures have incorporated many western values and the cultural significance of a sea turtle harvest is no longer apparent (Johannes 1984). This process of westernization also is occurring in Micronesia. Sea turtles apparently are no longer essential to either the cultural or nutritional well being of the inhabitants of high islands and district population centers in Micronesia.

There are people of native Hawaiian descent who practice native Hawaiian traditions (ref. comment from Project Kaho'olawe 'ohana) and who may qualify for a subsistence exception for religious reasons under the American Indian Religious Freedom Act. Unless the NMFS could demonstrate that the Hawaiian

sea turtle population would not be jeopardized by taking for religious purposes, these people probably could not be excluded from the prohibitions of the ESA.

Many of the comments received from Hawaiian residents requested that a take of turtles be allowed for home consumption and one commentator requested authorization to place turtles in fish ponds for algae control. These comments referred to traditional practices in the sense that the taking of turtles for these purposes occurred before turtles were listed (Hawaii DLNR, presented at meeting on Hawaiian green sea turtles held February 1, 1984, Honolulu, Hawaii) or that it had been done by recent generations. The NMFS views the term "traditional" in this context as synonymous with "historical" and distinct from cultural continuity with aboriginal practices. Therefore, NMFS believes that these types of take do not satisfy the criteria for a subsistence exception.

The Territory of Guam and the State of Hawaii did not identify a cultural group dependent on sea turtles for its survival. Their recommended modifications of the subsistence exception would authorize all residents to take turtles provided the taking was for home consumption. Taking for home consumption by the general public is difficult to distinguish from a recreational take and is not consistent with the purposes and policies of the ESA.

The NMFS thinks that, despite an apparent upward trend, the available data on the status of the Hawaiian green sea turtle population indicate that the current population size is not significantly different from the 1973 population size. Recruitment to the nesting population is small, estimated to be between 80 and 140 turtles a year. This level of recruitment has not produced a significant population increase over the 10 years that the

population has been monitored. The NMFS thinks that allocating a substantial portion of that recruitment to a take for either subsistence or home use would not be a sound management decision and would be contrary to the ESA.

The few existing examples of recovered or recovering sea turtle populations indicate that recovery occurs over a long time and requires virtually complete protection. The loggerhead and leatherback populations in Tongaland, South Africa received complete protection in 1963. By 1979 (16 years) the populations were demonstrating significant upward trends. The green sea turtle populations on Europa Island, in the Mozambique Channel and Mussan Island in the Bismark Sea were protected in the early 1930s and after 40 to 45 years demonstrated signs of complete recovery (Pritchard 1982b). In light of this information and the relatively short history of protection for the Hawaiian green sea turtle population, the NMFS thinks that any authorization for removing animals from the population would be premature.

The record does not support a subsistence exemption for Guam, but it does support Guam's claim that the existing exception (50 CFR 227.72(f)) is inequitably applied in the Mariana Archipelago. Guam's exclusion from the subsistence exemption is due to the political status of Guam and not to geographical, cultural, or biological considerations. Likewise, the inclusion of the CNMI in the exception is related to the political status of the CNMI as a member of the TTPI. The decision to authorize a subsistence exemption for the TTPI was based primarily on work done by McCoy (1974) documenting the subsistence needs of the inhabitants of the Central Carolines (specifically the Yap District). There is no specific information about subsistence needs in the CNMI in the record. The rationale for applying the exception to the entire TTPI rather than the specific island groups where a need had been demonstrated is not explained in the final EIS. The review of the cultural

history and the status of the green sea turtle population in the Mariana Archipelago indicates that an exception is not warranted for the CNMI.

The inequity in the Mariana Archipelago will be resolved when the TTPI is dissolved. The TTPI was scheduled for dissolution in 1981 but has been delayed by negotiations over the relationship the various political entities will maintain with the U.S. after achieving their independence. In 1976 the U.S. and the Northern Mariana Islands approved a "Covenant to Establish a Commonwealth of the Northern Mariana Islands." The Covenant defines the relationship that will exist between the CNMI and the U.S. after the Trust dissolves and provides that "those laws . . . which are applicable to Guam and which are of general application to the several states . . ." apply to the CNMI. Under that clause the Endangered Species Act applies to the CNMI. When the trust is dissolved the subsistence exception will no longer apply in the CNMI, and the CNMI will be subject to the same prohibitions on the taking of sea turtles as Guam, American Samoa, and Hawaii.

There is concern that the emergence of a money economy, the availability of modern boats and motors, and increasing populations are bringing increasing pressure to bear on the turtle populations in the TTPI. Residents of the high islands are no longer dependent on sea turtles. In Palau, turtles are now hunted for sport (Johannes 1984). The residents of the low islands still practice a subsistence lifestyle and sea turtles continue to contribute to their cultural stability, reinforcing the independence of these islanders from the outside (McCoy 1982).

Modern technology seems to work its way into even the remotest culture, and concurrent with improvements in technology are declines in tradition, taboos, and ceremonies. The deterioration of taboos decreases the traditional protection afforded turtle stocks by these beliefs. Although sufficient

justification remains for a subsistence exception in the low island areas of Micronesia, the time is approaching when it will be necessary to assist these islanders in the development of resource management practices to replace the buffers that were provided by traditional restrictions (McCoy 1982).

CONCLUSIONS:

Clearly there is an interest in utilization of the green sea turtle resources in the central and western Pacific, but the information considered in this review indicates there is no justification for extending the existing subsistence exception to either Hawaii, Guam, or American Samoa. The NMFS did not find evidence of a culture dependent on the taking of sea turtles for its continued existence, other than in the low island areas of Micronesia where subsistence lifestyles persist.

The Hawaiian population of green sea turtles is depleted and in the opinion of the NMFS cannot sustain a subsistence harvest. Based on the best available information the NMFS has concluded that the green sea turtles in other areas of the central and western Pacific are depleted, but that there is insufficient information available to determine whether those stocks could sustain a subsistence harvest. The NMFS thinks that harvesting a threatened species for home use is inconsistent with the intent of the ESA and that harvesting for home use can be authorized only after the populations are recovered and management responsibilities revert to the states.

Finally, Guam's claim of an inequity in the existing subsistence exception for the Mariana Archipelago appears to be justified. A review of the administrative record indicated that the documentation of cultural dependence on sea turtles submitted by the TTPI during the listing process did not include the CNMI. The CNMI received its subsistence exception because it

was part of the TTPI, and not because the residents of the CNMI were culturally dependent on a subsistence take of sea turtles. The information considered in this review did not verify the existence of a culture in the CNMI that is dependent on a subsistence take of sea turtles for its continued existence. The NMFS concludes that the inequity in the subsistence exception for the Mariana Archipelago should be resolved by prohibiting the taking of green sea turtles in the CNMI for subsistence purposes. Although this could be accomplished by the initiation of the rulemaking process, the NMFS thinks a more practical approach is to allow the trust under which the TTPI is administered to be dissolved. Upon dissolution of the Trust the subsistence exception will no longer be effective.

RECOMMENDATIONS:

1. Maintain current prohibitions on the taking of sea turtles in Hawaii, Guam, and American Samoa until the green sea turtle populations can be delisted.
2. In cooperation with the FWS and appropriate island resource agencies, establish a recovery team to develop a plan for the recovery of green sea turtle populations in Hawaii, American Samoa, and the Mariana Islands. The recovery plan should be completed by September 1986 and should outline the studies that are necessary for determining the discreteness of the green sea turtle stocks in American Samoa, and the Mariana Islands, and the studies that are necessary for assessing the populations with respect to the criteria established for delisting.
3. The recovery team should define criteria for delisting. For example, attainment of a recruitment goal, a population size that can sustain a take

for home consumption, attainment of a stable age distribution in the population, and/or reoccupation of a percentage of former nesting habitat.

4. If the status negotiations in the Trust Territory continue beyond the completion of the recovery plan, the NMFS should consider restricting the subsistence exception to only those low islands in the TTPI where subsistence lifestyles persist.

5. The NMFS and the FWS should provide assistance to native Hawaiian groups that may qualify from consideration under the American Indian Religious Freedom Act in making application for such a consideration.

6. The NMFS and the FWS should offer to assist the low island communities in Micronesia to develop acceptable management practices to compensate for the decline in observation of traditional taboos that protected turtle stocks from overexploitation.

7. The NMFS and the FWS, in cooperation with the State of Hawaii, Division of Aquatic Resources, should identify scientific, educational, or zoological display projects that are likely to contribute to the recovery of the Hawaiian green sea turtle population and that can be implemented under an ESA permit while the recovery plan is being developed.

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examination of a comparable subsistence exception for Alaskan natives in the Marine Mammal Protection Act of 1972. The two Alaskan native exceptions provide a general understanding of the concepts implicit in the term "subsistence" and the legislative intent behind the creation of those exemptions. The memo will also discuss the subsistence concepts utilized by the International Whaling Commission (IWC) to regulate the hunting of bowhead whales by Alaskan natives as well as the implications of the American Indian Religious Freedom Act on claims of native rights to take sea turtles.

Using the framework developed in the Alaskan native area, the specifics of the sea turtle exception will then be examined. A comparison of the Alaskan native and sea turtle subsistence exceptions will be made and a list of general criteria underlying the creation of a subsistence exception will be identified and discussed. Finally, some particular problems associated with the sea turtle exception will be examined.

II.

ALASKAN NATIVE SUBSISTENCE EXCEPTION

The subsistence exception for Alaskan natives under the ESA provides in part:

§ 1539. (e)(1) Except as provided in paragraph (4) of this subsection the provisions of this chapter shall not apply with respect to the taking of any endangered species or threatened species, or the importation of any such species taken pursuant to this section, by --

(A) any Indian, Aleut, or Eskimo who is an Alaskan native who resides in Alaska; or

(B) any non-native permanent resident of an Alaskan native village;

if such taking is primarily for subsistence purposes. Non-edible by-products of species taken pursuant to this section may be sold in interstate commerce when made into authentic native articles of handicrafts and clothing; except that the provisions of this subsection shall not apply to any non-native resident of an Alaskan native village found by the Secretary to be not primarily dependent upon the taking of fish and wildlife for consumption or for the creation and sale of authentic native articles of handicrafts and clothing.

(2) Any taking under this subsection may not be accomplished in a wasteful manner.

(3) As used in this subsection --

(i) The term "subsistence" includes selling any edible portion of fish or wildlife in native villages and towns in Alaska for native consumption within native villages or towns;

Remaining portions of the exception define "authentic native articles of handicrafts and clothing" (16 U.S.C. § 1539(e)(3)(ii)) and provide for the restriction of native subsistence taking upon a determination that an endangered or threatened species is being materially and negatively affected by the activity. (16 U.S.C. § 1539(e)(4)).

The legislative history of this section indicates that it was made a part of the ESA because of the special role that certain threatened and endangered species play in the traditional culture, livelihood and social structure of Alaskan native groups;

It has become apparent to the Committee in hearings that the case of the Alaskan native Indians, Aleuts, and Eskimoes required special attention. Certain native inhabitants depend on traditional hunting practices not only for subsistence but as a means for preserving social unity. Further, it was shown that their "take" was not the principal threat to the animals involved. Accordingly, S. 1983 does not apply with respect to the taking of any endangered or threatened species by such natives, provided that the action is for the purpose of consumption or use in a native community or for creation and sale of native articles of handicrafts and clothing, and is not accomplished in a wasteful manner.

S. Rep. No. 307, 93rd Cong., 1st Sess. 7 (1973) reprinted in COMM. ON ENVIRONMENT & PUBLIC WORKS, 97th CONG. 2d Sess., LEGISLATIVE HISTORY OF THE ENDANGERED SPECIES ACT OF 1973 AS AMENDED, at 304 (1982).

The legislative history also reveals that the Alaskan native exception was based upon a similar exception contained in the MMPA and was drafted to avoid some of the problems encountered in implementing the MMPA exception.

There is also a specific exception for Alaska Natives. This was written utilizing the Marine Mammal Protection Act of 1972 (86 Stat. 1027) as a guide and was reviewed in detail with my staff and is entirely agreeable to me. I believe it provides the protection necessary for Alaskan Natives. Many of the technical changes were made as

a result of certain problems we have found in the implementation of the marine mammal bill and certain questions that have subsequently been raised by those agencies in enforcing that Act. Hopefully this will eliminate many of these ambiguities and will also, I intend, clarify our original interpretation of the Marine Mammal Protection Act.

____ CONG. REC. ____ (1973) (remarks of Sen. Stevens)
reprinted in COMM. ON ENVIRONMENT & PUBLIC WORKS, 97th CONG.,
2d SESS., LEGISLATIVE HISTORY OF THE ENDANGERED SPECIES ACT
OF 1973 AS AMENDED, at 370 (1982).

In order to understand the meaning of "subsistence" as it is used in the ESA statutory exception, the constituent elements of the section must be examined. As the ESA Alaskan native exception is based largely upon the comparable MMPA exception, the following discussion will make references to the MMPA where appropriate.

A. WHO IS INCLUDED IN THE EXEMPTION

The ESA provision is very specific in describing to whom the exception applies. Only Indians, Aleuts or Eskimos who are Alaskan natives and who reside in Alaska or non-native permanent residents of an Alaskan native village come within the exception. 16 U.S.C. § 1539(e)(1)(A) and (B).

1) Alaskan Natives: The term "Alaskan native" is not defined in either the ESA or the MMPA. However, "Alaskan native" is defined in the NMFS regulations implementing the MMPA at 50 C.F.R. § 216.3. According to this definition, an "Alaskan native" is a) a U.S. citizen who is at least one quarter Alaskan Indian, Eskimo or Aleut or combination thereof, including individuals with one quarter native blood with non-native adoptive parents, or b) any U.S. citizen who is regarded as an Alaskan native by the native village or group of which he claims to be a member and whose father or mother is or was regarded as native by any native village or group. In addition, any citizen enrolled by the Secretary of the Interior pursuant to section 5 of the Alaska Native Claims Settlement Act (ANCSA) is conclusively presumed to be an Alaskan native. This same definition was adopted by the FWS in regulations implementing the ESA for species under the jurisdiction of that agency. 50 C.F.R. § 17.3.

Under section 1539(e)(1)(A) of the ESA, any Indian, Aleut or Eskimo who is an Alaskan native and who resides in Alaska is eligible for the exemption. The comparable provision in the MMPA limits the exemption to "... any Indian, Aleut or Eskimo who resides in Alaska and who dwells on the coast of the North Pacific Ocean or the Arctic Ocean ..." 16 U.S.C. § 1371(b). This version was added to the MMPA by amendment in 1981.

Problems had arisen under the original MMPA provision in defining the geographical scope of the North Pacific Ocean and in determining whether Indians residing on the coast of the North Pacific in areas other than Alaska were included in the exception. See NOAA Legal Memoranda: "Participation in Joint Ventures for the Taking of Marine Mammals", Carol Teather, May 19, 1975 and "... MMPA Sensitive Cases: Application of Native Exception to Non-Alaska Natives", David Fitch, January 3, 1980. The phrase "who resides in Alaska" was added to the MMPA provision in 1981 to clarify that only Indians residing in Alaska are eligible for the exemption. The ESA provision was drafted to avoid this type of problem by specifying that only Alaskan natives residing in Alaska come within the exemption.

2) Non-Native Residents of an Alaskan Village:

The ESA exception also applies to non-native permanent residents of an Alaskan native village. The legislative history of the ESA exception indicates that this language was originally part of a separate "hardship" exception intended to include certain individuals who were permanent residents of Alaskan native communities and who relied upon subsistence hunting for survival but who did not otherwise qualify as Alaskan natives. This exception was intended to apply to no more than a dozen individuals. _____ CONG. REC. _____ (1973) (remarks of Senator Stevens), reprinted in COMM. ON ENVIRONMENT & PUBLIC WORKS, 97th CONG., 2d SESS., LEGISLATIVE HISTORY OF THE ENDANGERED SPECIES ACT OF 1973 AS AMENDED, at 378-379 (1982). In the final version of the ESA, this exemption emerged as part of the overall Alaskan native exception.

The MMPA exception adopted a more restrictive approach, not permitting a subsistence or handicraft take by non-native Alaskans. 16 U.S.C. § 1371(b). When provisions of the MMPA and ESA conflict, the ESA provides that the more restrictive provisions of the MMPA will take precedence. 16 U.S.C. § 1543. For this reason, it is arguable that the MMPA exception would control a situation where non-native Alaskans were taking threatened or endangered marine mammals.

B. PURPOSES FOR WHICH THE ANIMAL MAY BE TAKEN

The ESA Alaskan native exception is applicable only if the taking is "primarily for subsistence purposes." The exemption also provides that the non-edible by-products of an animal taken primarily for subsistence purposes may be sold in interstate commerce when made into authentic native articles of handicrafts and clothing. 16 U.S.C. § 1539(e)(1). This differs from the MMPA exception where it is permissible to take a marine mammal if the taking is 1) for subsistence purposes or 2) for the purpose of creating and selling authentic articles of native handicraft and clothing. 16 U.S.C. § 1371(b). Under either exemption, the taking cannot be accomplished in a wasteful manner. 16 U.S.C. § 1371(b), 16 U.S.C. § 1539(e).

The second part of the MMPA exception was included to permit the continuation of the native "cottage industries" in the production of handicrafts and clothing out of the parts of marine mammals. H.R. & S. CONF. REP. NO. 1488, 92nd Cong., 2d Sess., 2, reprinted in (1972) U.S. CODE CONG. & ADMIN. NEWS 4187, 4188. The ESA exception also recognizes the native cottage industries, but requires that the initial taking be primarily for subsistence purposes -- only then can the inedible by-products of the animal be transformed into native handicrafts for sale in interstate commerce. This is consistent with the policy of the ESA not to permit commercial exploitation of threatened or endangered species, while acknowledging the important role of the cottage industries in the subsistence economy of Alaskan natives.

Although the ESA exception permits limited commercial activity in native handicrafts, neither the Act nor its regulations control the manner in which the trading will occur. The MMPA, however, does regulate the sale and transfer of native handicrafts by Alaskan natives. 50 C.F.R. § 216.23(b). Again, the ESA's statutory deference to more restrictive provisions of the MMPA suggests that commercial activity in native handicrafts manufactured from the parts of threatened or endangered marine mammals will be governed by the MMPA procedure at 50 C.F.R. § 216.23.

C. PERMISSIBLE USES

As explained at the outset, the term "subsistence" is not defined in the ESA exception or elsewhere in the Act. However, definitions of "subsistence" can be found in regulations under the MMPA and in the FWS regulations implementing the ESA.

"Subsistence" is defined in the regulations implementing the MMPA for species under the jurisdiction of NMFS as:

... the use of marine mammals taken by Alaskan Natives for food, clothing, shelter, heating, transportation, and other uses necessary to maintain the life of the taker or those who depend upon the taker to provide them with such subsistence.

50 C.F.R. § 216.3

The FWS uses the same definition in the regulations implementing the MMPA for species under its jurisdiction at 50 C.F.R. § 18.3

The FWS also has a definition of "subsistence" in its regulations implementing the ESA;

'Subsistence' means the use of endangered or threatened wildlife for food, clothing,

shelter, heating, transportation and other uses necessary to maintain the life of the taker of the wildlife, or those who depend upon the taker to provide them with such subsistence, and includes selling any edible portions of such wildlife in native villages and towns in Alaska for native consumption within native villages and towns;

50 C.F.R. § 17.3.

The most recent and comprehensive definition of "subsistence" is that contained in a section of the MMPA that was added by amendment in 1981. The section concerns the transfer of management authority for species of marine mammals to state agencies.

Under 16 U.S.C. § 1379(f)(1), management authority over marine mammals cannot be transferred to the State of Alaska unless the State management plan meets certain criteria relating to subsistence and consumptive uses of the species. Section 1379(f)(2) defines the meaning of "subsistence" and related concepts:

(2) For purposes of paragraph (1), the term "subsistence uses" means the customary and traditional uses by rural Alaska residents of marine mammals for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of marine mammals taken for personal or family consumption; and for barter, or sharing for personal or family consumption. As used in this paragraph --

(A) The term "family" means all persons related by blood, marriage, or adoption, or any person living within a household on a permanent basis.

(B) The term "barter" means the exchange of marine mammals or their parts, taken for subsistence uses --

(i) for other wildlife or fish or their parts, or

(ii) for other food or for nonedible items other than money if the exchange is of a limited and noncommercial nature.

16 U.S.C. § 1379(f)(2).

The legislative history of § 1379(f) indicates that this definition of "subsistence" was derived from a similar definition in the Alaska National Interests Land Conservation Act (ANILCA). H.R. REP. No. 228, 97th Cong., 1st Sess., 28, reprinted in (1981) U.S. CODE CONG. & ADMIN. NEWS 1458, 1478. The specificity of

the ANILCA definition reflects the fact that it was drafted with both the ESA and MMPA subsistence exceptions in mind. S. REP. NO. 413, 96th Cong., 1st Sess., 233 reprinted in (1980) U.S. CODE CONG. & ADMIN. NEWS 5070, 5177. Because the definition incorporates the concepts of both the ESA and MMPA exceptions, the ANILCA definition is the most recent and useful version of "subsistence." However, the definition is not binding upon either the ESA or MMPA Alaskan native exceptions. The ANILCA definition and its counterpart in MMPA Section 1379(f)(2) are not incorporated into the ESA, and Section 1379(f)(2) of the MMPA, by its terms, does not apply to the MMPA as a whole. For this reason the ANILCA definition is only a useful guide to the meaning of subsistence, not the definitive statement.

Based upon the foregoing definitions and the provisions of the ESA exception, it is possible to describe the permissible uses for which an Alaskan native may take a threatened or endangered marine mammal. Under all of the definitions, the animal may be taken for any purpose clearly involving a subsistence use; personal or family use for food, clothing, shelter, fuel, tools or transportation. In addition, under the FWS definition at 50 C.F.R. § 17.3, edible portions of the animal may be sold in native villages and towns for native consumption within such villages and towns. Inedible portions remaining after subsistence usage may be transformed into native handicrafts and sold in interstate commerce. Finally, under the ANILCA definition, marine mammal parts may be exchanged for other foodstuffs or for non-edible items other than money if the exchange is of a limited, non-commercial nature. Although the ESA exception and its implementing regulations do not specifically endorse the concept of "barter," it is arguable that such trading between Alaska natives could come within the meaning of the phrase "other uses necessary to maintain the life of the taker" as used in the FWS definition.

D. RESTRICTIONS UPON SUBSISTENCE TAKING

Under § 1539(e)(4) of the ESA Alaskan native exception, the Secretary may halt or limit native subsistence hunting in appropriate circumstances. If the Secretary determines that 1) a threatened or endangered species is the subject of subsistence taking by Alaskan natives and 2) the taking is materially and negatively affecting the species population, subsistence taking may be restricted by geographical area, season or in some other manner.

E. GENERAL CONCEPTS OF SUBSISTENCE

Several general concepts implicit in the term "subsistence" emerge when the various definitions are considered;

1) The taking must be "customary" and "traditional" in the native culture. Although not directly mentioned in the definitions found in the implementing regulations of the ESA, it is clear from the legislative history of the Act that the

traditional nature of subsistence hunting among Alaskan natives was an overriding factor in the decision to permit an exception to the Act. Sen. Rep. No. 307, supra, at 5. The ANILCA definition explicitly refers to "customary and traditional use" by Alaskan natives.

2) Several types of "subsistence" use are permissible. Under the definitions, personal or family use of an animal for food, clothing, shelter, fuel, tools or transportation are clearly legitimate subsistence uses.

3) The taking must be for the personal use of the taker or those who depend on the taker to provide the necessities of life. The ANILCA definition refers to this as "... direct personal or family consumption." The implementing definitions refer to it as "... uses necessary to maintain the life of the taker ... or those who depend upon the taker to provide them with such subsistence." Essentially, this is a requirement that the taking be for personal or family use and not for commercial purposes.

4) Although the taking must be for personal or family consumption, certain other uses of the animal are permissible;

- edible portions of an animal may be sold in native villages and towns for native consumption within villages and towns. This is provided in the ESA exception.

- as long as the taking is primarily for a subsistence purpose (ie., for personal or family use as food, clothing, shelter, fuel, tools or transportation) the inedible by-products of the animal can be made into native handicrafts and sold in interstate commerce. This is also provided in the ESA statutory exception.

- it may be permissible to trade or barter marine mammal products as long as the taking is of a limited, non-commercial nature. As mentioned in the discussion of subsistence uses on pages 9-12, barter is explicitly recognized in the ANILCA definition but not in the ESA or its implementing regulations. However, the definition of "subsistence" used by FWS under the ESA statutory exception approves of "other uses necessary to maintain the life of the taker." Since a broad range of subsistence uses are sanctioned under the various Alaskan native definitions, a limited barter system between Alaska natives may be permissible as an "other use necessary to maintain the life of the taker."

III.

SUBSISTENCE CONCEPTS UTILIZED BY THE INTERNATIONAL WHALING COMMISSION (IWC)

The IWC was created under the Convention for the Regulation of Whaling, 49 Stat. 3079, September 24, 1931, a multinational

agreement to establish a system of international regulation of whale fisheries to ensure the conservation and development of whale stocks. Part of the function of the IWC is to periodically review and update the regulatory measures contained in the Convention Schedule.

In the late 1970's, the IWC began work on the development of a management plan for subsistence whaling by Alaskan natives. The development of this plan was necessitated by the fact that the population of the bowhead whale, the principal target of the native subsistence hunt, was severely depleted and an orderly method was needed to limit the native take.

Several definitions of "subsistence" and related terms were utilized by the IWC in considering the management options available. In the Report of the Panel to Consider Cultural Aspects of Aboriginal Whaling in North Alaska, February, 1979, "subsistence use of whale products" was defined as:

- 1) The personal consumption of whale products for food, fuel, shelter, clothing, tools, or transportation by participants in the whale harvest.

- 2) The barter, trade, or sharing of whale products in their harvested form with relatives of the participants in the harvest, with others in the local community or with persons in locations other than the local community with whom local residents share familial, social, cultural, or economic ties. A generalized currency is involved in this barter and trade, but the predominant portion of the products from each whale are ordinarily directly consumed or utilized in their harvested form within the local community.

- 3) The making and selling of handicraft articles from whale products, when the whale is harvested for the purposes defined in (1) and (2) above.

In the IWC Technical Committee Working Group on Development of Management Principles and Guidelines for Subsistence Catches by Aboriginal Peoples (U.S. Report, 1981) the following definitions were developed:

Indigenous peoples means aboriginal or native people who are permanent residents of native villages, who have conducted subsistence whaling operations for as long as their history is known. The terms indigenous, aboriginal, and native are used interchangeably in this report.

Subsistence catches are whales hunted and used for personal consumption by aboriginal people, for food, clothing, shelter, handicrafts, tools, transportation and other personal uses, including the sale of parts of whales as traditional native handicrafts. They do not include whales whose parts are sold in any other manner or for any other purpose.

Local consumption is subsistence use of catches by aboriginal peoples.

The Report of the Ad Hoc Technical Committee Working Group on Development of Management Principles and Guidelines for Subsistence Catches of Whales by Indigenous (Aboriginal) Peoples, 1981, drafted these subsistence definitions:

Aboriginal Subsistence Whaling means whaling, for purposes of local aboriginal consumption, carried out by or on behalf of aboriginal, indigenous or native peoples who share strong community, familial, social and cultural ties relating to a continuing traditional dependence on whaling and the use of whales. The term includes trade in items which are by-products of subsistence catches.

Local Aboriginal Consumption means the traditional use of whale products by local aboriginal, indigenous or native communities in meeting their nutritional, subsistence and cultural requirements.

Subsistence Catches are catches of whales by aboriginal subsistence whaling operations.

These IWC definitions share the same general subsistence concepts as those developed under the MMPA and ESA definitions. Under the IWC definitions, the taking must be customary and traditional in the native culture and the taking must primarily be for personal or family consumption. A broad range of subsistence uses (food, clothing, shelter, tools and transportation) are permitted. Finally, some non-subsistence uses (barter, sale as native handicrafts) are permissible as long as the animal was taken primarily for a subsistence purpose. The take of bowhead whales by Alaska natives is limited to the use of traditional harvesting methods and weapons under the terms of the NOAA-Alaska Eskimo Whaling Commission Cooperative Agreement.

It was also evident from the IWC review of the various options available that the IWC had to balance the subsistence

needs of the native community with the need to protect the resource, just as U.S. legislators did in drafting the MMPA and ESA exceptions. As in the legislative debate over the ESA exception, the IWC was presented with evidence detailing the crucial role of the bowhead whale hunt in the culture and social structure of the affected natives.

Probably the single most important aspect of the bowhead whale hunt has been the development, integration, and maintenance of the native community and, indeed, a whole native culture. The whale hunt is an important element throughout the culture, including the role of the bowhead whale and the hunt in bowhead whale ceremonies and festivals; the spiritual relationship of the bowhead whale to the daily life of the Eskimo; the activity of the hunt and its preparation; the sharing and cooperative and competitive social structure; the distribution of the meat among villages; the leadership role played by whaling captains; and the daily consumption of whale meat throughout the year. These components link the Eskimo community, giving it a clear identity and purpose.

IWC Technical Committee Report (1981), supra p.15, at p.4

Other studies reviewed by the IWC suggested that the bowhead whale was not an essential source of nutrition in the native diet and that alternative food sources were available. However these studies reiterated that the bowhead is more than just a source of food in the native culture;

It is equally important to understand that such alternative resources would not replace bowhead whales. Whales are much more than food for the north Alaskan Eskimos. From this perspective, nothing can compensate for the absence of bowhead whale meat, muktuk, and other whale products, and certainly no activity can replace whaling as a focal subsistence tradition among these Eskimos ... Because whales provide more than food, we conclude that whaling activities themselves cannot be replaced. A simple discussion of whales as food would miss the fundamental fact that whaling is a pivotal element in north Alaskan Eskimo culture ..."

Report of the Panel to Consider Cultural Aspects of Aboriginal Whaling in North Alaska, 1979, p.23-24.

Because of the similar balancing process faced by the IWC and the drafters of the ESA exception, it is not surprising that the same general subsistence concepts emerged in both situations. Again, however, it is debatable whether the bartering of whale parts sanctioned in the IWC definitions of subsistence would be permissible under the ESA exception.

IV.

IMPACT OF THE AMERICAN INDIAN RELIGIOUS FREEDOM ACT

Another Federal statute which has some bearing on the subsistence issue is the American Indian Religious Freedom Act (AIRFA). The statute provides:

On or after August 11, 1978, it shall be the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, Eskimo, Aleut, and Native Hawaiians, including but not limited to access to sites, use and possession of sacred objects, and the freedom to worship through ceremonials and traditional rites.

It should be noted that a native group must demonstrate that the taking has both past and present religious significance to come within AIRFA. The language of AIRFA and the legislative history of the Act both indicate that the law was designed to protect the ongoing religious practices of Native American religions. H.R. Rep. No. 1308, 95th Congress, 1-5, reprinted in (1978) U.S. CODE CONG. & ADMIN. NEWS, p. 1262-1266.

If a native group covered by AIRFA is able to establish that the taking of a threatened species has special significance to the group as an ongoing religious practice, the group may have a valid claim for an allowable take under threatened species regulations. However, the assertion of rights under AIRFA, standing alone, is not sufficient to exclude a native group from the prohibitions of the ESA. As in the Alaskan native situation, some legitimate subsistence needs will probably have to be documented in addition to religious and cultural significance to justify the taking of threatened or endangered marine mammals.

V.

SEA TURTLE SUBSISTENCE EXCEPTION UNDER REGULATIONS IMPLEMENTING THE ESA

Green, loggerhead and Pacific Ridley sea turtles were listed as "threatened" species under the ESA in regulations promulgated by the Department of Commerce and the Department of

Interior on July 28, 1978. (43 Fed. Reg. 32800), 50 C.F.R. §§ 17.11, 17.42, 227.71, 227.72. These regulations also listed certain breeding populations of the Green and Pacific Ridley sea turtles as "endangered" under the Act. 50 C.F.R. § 17.11.

In the same regulations, a subsistence exception was created for residents of the Trust Territory of the Pacific Islands which permits a limited take of green sea turtles. 50 C.F.R. § 227.72(f). How and why such a subsistence exception became a part of the ESA sea turtle regulations will be examined in the following section.

A. PROPOSED SEA TURTLE REGULATIONS

The proposed regulations creating a "threatened" status for the above-mentioned species of sea turtles were published on May 20, 1975. 40 Fed. Reg. 21982 (1975). In the proposed regulations, no exception for subsistence taking was contemplated. As the following excerpt indicates, the drafters of the proposed sea turtle regulations were not convinced that the need for a subsistence exception outweighed the need to protect the threatened and endangered sea turtle populations;

While we recognize that there is some subsistence taking of these species for food purposes by persons subject to the jurisdiction of the United States, these regulations do not allow for such taking. It is believed that in no case should taking for food purposes be allowed on or near nesting beaches. Although there may be a limited subsistence taking in other areas for food purposes, we do not believe it to be a dominant factor in maintaining life, as there are alternative food sources from species other than those that are believed to be threatened with extinction.

40 Fed. Reg. 21982, 21984.

After the proposed regulations were published, NMFS and FWS reached an agreement on the jurisdictional responsibilities of each agency under the ESA sea turtle regulations. Under this agreement, NMFS assumed jurisdiction over sea turtles and activities impacting sea turtles while the turtles were in the marine environment. "Marine environment" was defined as "... the oceans and seas, the bays and estuaries, and brackish water areas." FWS assumed jurisdiction over sea turtles while on the land. (Memorandum of Understanding Defining the Roles of F.W.S. and N.M.F.S. In Joint Administration of the ESA of 1973 As To Marine Turtles, July 18, 1977).

B. FINAL REGULATIONS

NMFS and FWS jointly published final regulations listing and protecting certain species of sea turtle as threatened under the ESA on July 28, 1978. 43 Fed. Reg. 32800. These regulations did contain a limited subsistence exception for residents of the Trust Territory of the Pacific Islands. The exception provides:

(f) Subsistence. The prohibition in §227.71(b) shall not apply with respect to the taking of any member of the species of green sea turtle (Chelonia mydas) in waters seaward of mean low tide for personal consumption by residents of the Trust Territory of the Pacific Islands if such taking is customary, traditional and necessary for the sustenance of such resident and his immediate family. Sea turtles so taken cannot be transferred to non-residents or sold.

During the comment period following publication of the proposed sea turtle regulations and the draft Environmental Impact Statement, NMFS and FWS received several responses supporting a subsistence exception. Generally these comments were from Territorial governors and State agencies in the areas where subsistence taking was occurring. In the preamble to the final regulations and in the final Environmental Impact Statement, NMFS and FWS discussed why a subsistence exception was or was not granted to each of the principal regions seeking inclusion in the exemption.

The Caribbean - NMFS and FWS gave several reasons for not permitting a subsistence take in the Caribbean region. Initially, agencies found that there was no traditional, cultural reliance among natives in the Caribbean area upon a subsistence take of sea turtles. The agencies found no documentation supporting the contention that sea turtles were relied upon as a source of food by natives in the region. In addition, the agencies were concerned about enforcement aspects of a subsistence exception in the area. Because of the volume of inter-island commerce, a subsistence exception would make it very difficult to determine which takings were for legitimate subsistence purposes.

43 Fed. Reg. 32800, 32806.

Hawaii - Hawaii argued that an existing State regulation limiting the taking of green sea turtles for home consumption to those at least 36 inches in carapace length would adequately protect the sea turtle populations. The regulation, however, did not limit the purposes for which a sea turtle could be

taken to those related to the subsistence needs of the taker. Sport hunting and recreational takings were permissible as long as the turtle was 36 inches or greater in carapace length.

NMFS and FWS decided against permitting a subsistence exception for the Hawaiian Islands. The agencies were concerned that despite the State regulation, there had been an increase in the taking of sea turtles and in the sale of turtle parts as tourist items in Hawaii. In addition, the agencies felt that alternative food sources were available in Hawaii to replace sea turtles in the diet of the native Hawaiians. 43 Fed. Reg. 32800, 32806. (July 28, 1978)

Western Pacific Region - NMFS and FWS granted a subsistence exception for the taking of green sea turtles by residents of the Trust Territory of the Pacific Islands. Three main reasons were advanced for this decision. First, the agencies found that turtle meat and eggs were a traditional, customary source of food in the region and that the taking of green sea turtles was an important part of the culture of certain inhabitants of the area, citing the Yap Island residents in particular. The agencies were also persuaded that green sea turtle meat provided a major source of food for many island residents. Finally, the agencies concluded that a subsistence harvest conducted in the traditional manner would not have a major impact upon the existing population of green sea turtles in the region. 43 Fed. Reg. 32800, 32806.

The discussion of the western Pacific in the preamble to the final regulation concerned the population of the threatened and endangered sea turtles in the western Pacific other than Hawaii. 43 Fed. Reg. 32806. However, the subsistence exception which emerged was limited to residents of the Trust Territory of the Pacific Islands. Thus, certain areas of the western Pacific subject to U.S. jurisdiction which are outside of the Trust Territory itself (Guam, American Samoa, Wake Island) were excluded from the exception. There was no explanation of why these areas were not included in the exemption. Apparently the agencies found the conditions listed above only applied to the Trust Territory itself, not outlying areas.

VI.

SCOPE OF THE ESA SEA TURTLE SUBSISTENCE EXCEPTION

The subsistence exception for green sea turtles in the ESA regulations is considerably narrower than the statutory subsistence exception for Alaskan natives in Section 1539(e) of the Act. An examination of the scope of the sea turtle subsistence exception reveals its limitations.

A. WHO IS INCLUDED IN THE EXCEPTION

Only residents of the Trust Territory of the Pacific Islands may take green sea turtles for subsistence purposes. The term "residents of the Trust Territory of the Pacific Islands" is not defined in the regulations or elsewhere. There is no requirement that the "resident" of the Trust Territory be a native or possess an identifiable relationship with a native group or culture, as in the Alaskan native situation. Thus the exemption would appear to apply to all residents of the geographical area of the Trust Territory, regardless of their cultural background. This broad definition of who is included in the exception is, however, restricted by language stating that residents can only take sea turtles "... if such taking is customary, traditional and necessary for the sustenance of such resident and his immediate family." This appears to be an effort to limit the exception to resident native groups without actually defining such groups.

The exception also provides that a green sea turtle may be taken for personal consumption by the taker and his "immediate family." Although the term "immediate family" is not defined, a close definitional analogy can be found in the ANILCA Alaskan native exception and the MMPA version of the ANILCA subsistence exception at 16 U.S.C. § 1379(f). As defined therein, "family" means "all persons related by blood, marriage or adoption, or any person living within a household on a permanent basis."

B. PURPOSES FOR WHICH SEA TURTLES MAY BE TAKEN

Only a limited range of subsistence usage is permitted by the exemption at 50 C.F.R. § 227.72(f). Under that provision, a taking must be for the "personal consumption" of the taker and his immediate family and the taking must be necessary for the "sustenance of those individuals." Again, these terms were not defined in the regulations. It is apparent from the preamble to the proposed and final regulations, however, that NMFS and FWS considered "personal consumption" to mean consumption for nutritional purposes. See 40 Fed. Reg. 21982, 21984, and 43 Fed. Reg. 32800, 32806. There was no indication in these comments that NMFS and FWS contemplated an exception for native handicrafts, as in the statutory Alaskan native exception. However, it is arguable that some other subsistence uses may come within the limited definition provided in § 227.72(f). The preamble to the final regulations explicitly cited the traditional, cultural usage of sea turtles by Yap Islanders as one reason why a subsistence exception for the Trust Territory was allowed. 43 Fed. Reg. 32800, 32806. For this reason, it is conceivable that some traditional, non-food uses, such as use of the turtle for clothing, tools, or other implements, may be permissible. Such uses fit the § 227.72(f) criteria, as they are a form of personal consumption, they are traditional, cultural uses and they fit within the dictionary definition of the term "sustenance." Establishing that such uses are

"necessary" to the sustenance of the taker and his immediate family is the only apparent barrier to including such subsistence uses in the § 227.72(f) definition.

C. PERMISSIBLE USES

In addition to limiting the purposes for which a green sea turtle may be taken, the exception imposes restrictions upon the use of a turtle once it is taken. Even if the turtle was legitimately taken for personal consumption, the taker cannot sell the turtle or its parts and cannot transfer the turtle or its parts to a non-resident. This language does not preclude a transfer of subsistence taken turtles among residents, however, so some type of barter system among residents may be permissible.

D. RESTRICTIONS UPON SUBSISTENCE TAKING

Three additional restrictions upon subsistence taking should be noted. The exception does not permit residents of the Trust Territory to take any species of sea turtle other than the green sea turtle (Chelonia mydas). This effectively bans the taking of the hawksbill turtle, which has been identified as another species of sea turtle that has been subject to a traditional harvest by native groups in the Pacific region. NMFS Memorandum, "A Review of Information on the Subsistence Use of Green and Hawksbill Sea Turtles on Islands Under U.S. Jurisdiction in the Pacific Ocean," R. S. Johannes, January, 1984. The hawksbill turtle is listed as "endangered" under the ESA, and thus a subsistence exception is precluded by §9(a) of the Act. 16 U.S.C. § 1538(a).

The exception also attempts to protect the stocks of the green sea turtle by permitting them to be taken only while in the water ("...waters seaward of mean low tide"). This restriction was designed to protect nesting beaches and the female turtles and eggs located upon these beaches.

Finally, NMFS and FWS have an obligation to obtain data on the extent of subsistence harvesting and the effect of such harvesting upon the green sea turtle population. The agencies are to base future decisions about the level of subsistence taking upon this data. 43 Fed. Reg. 32800, at 32806. This provision is similar to that in the ESA statutory exception for Alaskan natives, which permits the Secretary to restrict subsistence taking if such taking is materially and negatively affecting the subject species. 16 U.S.C. § 1539(e)(4).

VII.

COMPARISON OF ESA STATUTORY AND REGULATORY SUBSISTENCE EXCEPTIONS

It is apparent that the ESA regulatory subsistence exception for the taking of green sea turtles is different in many respects

than the ESA statutory exception for Alaskan Natives. Among the principal differences between the exceptions:

- Only one species of threatened sea turtle, the green sea turtle, may be taken under the exception at 50 C.F.R. § 227.72(f). The Alaskan native exception permits a subsistence taking of any species as long as the other requirements of the section are met.

- 50 C.F.R. § 227.72(f) permits subsistence taking to occur only when the green sea turtles are in the water. There is no comparable restriction on where a taking can occur under the Alaskan native exception, other than that the taking must not be accomplished in a wasteful manner.

- The only purpose for which a green sea turtle can be taken under 50 C.F.R. § 227.72(f) is for the personal consumption of the taker and his immediate family. The taking must also be necessary for the sustenance of the taker and his immediate family. As discussed in the preceding section, there is no indication that NMFS and FWS intended to sanction a broad range of subsistence uses in drafting the exception. The use of green sea turtles for food and nourishment was the only apparent subsistence use contemplated by the drafters.

The subsistence uses permitted under the Alaskan native exception are much broader. Although the taking must be for personal or family consumption under both exceptions, "personal consumption" under the Alaskan native exception includes using the animal for clothing, transportation, fuel, shelter or tools. 50 C.F.R. 17.3.

- The sea turtle subsistence exception does not permit turtles to be taken for the purpose of creating items of native handicraft or art. The Alaskan native exception provides that inedible by-products of an animal taken primarily for subsistence purposes can be transformed in authentic native handicrafts and sold in interstate commerce.

- The sea turtle subsistence exception prohibits any sale of a taken green sea turtle or its parts. The Alaskan native exception permits edible portions of an animal taken primarily for subsistence purposes to be sold to other Alaskan natives within native village and towns. In addition, inedible portions of such an animal may be transformed into authentic native handicrafts and sold in interstate commerce.

In other areas, the two exceptions share certain similarities;

- Both subsistence exceptions are based upon determinations that the taking of certain endangered or threatened species is a traditional part of the culture and social unity of particular native groups. In the sea turtle exemptions, there is an express requirement that the taking be customary

and traditional. In the Alaskan native exception, the importance of the traditional and cultural aspects of subsistence hunting to the affected Alaskan natives is evident from the legislative history of the section.

- Although not explicitly approved, it appears that a limited barter system among residents/Alaskan natives is permissible under both exemptions. The sea turtle subsistence exception provides that a legitimately taken green sea turtle "... cannot be transferred to a non-resident or sold." 50 C.F.R. § 227.72(f). The clear implication of this language is that while the sale of a legitimately taken turtle is prohibited, transfer between residents is permissible. In such a barter system, the subsistence taker could probably exchange a turtle or its parts with another resident for goods other than food if such goods were necessary for the sustenance of the taker and his immediate family, a requirement under the regulation. Given the limited subsistence usage permitted by the exception, however, it will probably be incumbent upon the ultimate transferee to use the turtle in a legitimate manner - i.e., for personal or family consumption as food.

A similar barter system is permissible under the ESA Alaskan native subsistence exception. Although the statutory exception does not directly address an exchange system among Alaskan natives, the exception does provide for the sale of authentic native articles of handicrafts and clothing, 16 U.S.C. § 1539(e)(1)(13), and thus a barter system would clearly seem permissible. In addition, the definition of "subsistence" in the regulations implementing the statutory exception includes "...other uses necessary to maintain the life of the taker of the wildlife, or those who depend upon the taker for subsistence." 50 C.F.R. § 17.3. Since the statutory exception permits a broad range of subsistence uses and sale, a limited, non-commercial system of exchange between Alaskan natives to further legitimate subsistence purposes will not violate the ESA statutory exception.

- Both exceptions have methods by which the subsistence take can be curtailed or halted if it is determined that the harvested species are being detrimentally affected by the activity. In the Alaskan native exception, the Secretary can prescribe regulations upon a determination that the native subsistence taking is materially and negatively affecting the species. According to the preamble to the final sea turtle regulations, NMFS and USFWS will obtain data on the extent of the subsistence take and its impact upon the sea turtle populations and base future regulations upon this data.

VIII.

PURPOSES UNDERLYING SUBSISTENCE EXCEPTIONS

From the foregoing analysis of the ESA statutory and regulatory subsistence exceptions, it is possible to elicit

some general concepts guiding the creation of such exceptions. Following is a list of certain criteria which reflect the theoretical and practical aspects of subsistence that were considered by Congress and the executive agencies in drafting the statutory and regulatory exceptions.

A. THE CUSTOMARY, TRADITIONAL NATURE OF SUBSISTENCE TAKING

This is unquestionably the most important factor underlying a subsistence exception. The entire notion of a subsistence exception is that a particular cultural group has traditionally relied upon taking certain species of wildlife to provide the necessities of life. To ban the taking of such species is essentially to deny that cultural group the right to continue their traditional way of life. The disruptive effect of such an action on the native group's ability to survive in an environment with limited resources provides the justification for an exception to the prohibitions of the Act.

Although a traditional, cultural reliance upon the taking of a certain species may be viewed as a prerequisite for a subsistence exception, the mere presence of a cultural tradition does not assure that an exception will be granted. The other criteria identified in this section may, in a given situation, dictate against inclusion of an otherwise qualified native group.

B. THE EFFECT OF SUBSISTENCE TAKING ON THE POPULATION OF THE SUBJECT SPECIES

Another important factor in determining whether or not to allow a subsistence exception is the impact which the subsistence hunting or fishing has on the population of the affected species. A showing that the subsistence take is not threatening existing populations or that existing populations are viable enough to support a traditional subsistence harvest is strong support for an exception. A lack of evidence indicating that subsistence hunting was adversely affecting the green sea turtle population was one of the principal reasons why NMFS and FWS permitted a subsistence take of the turtles in the Trust Territory.

The available information on the Western Pacific green turtle population is, at best, incomplete. Reports indicate increased harvesting of eggs and adults have occurred in some areas due to improved native transportation to remote islands. These activities may be instrumental in causing the population declines reported in some areas. However, information submitted showed certain nesting colonies were healthy. There was no strong evidence to support a seriously declining green

E. ENFORCEMENT CONSIDERATIONS

A final factor influencing the allowance of a subsistence exception is the enforcement problems that may be encountered. These concerns can take several forms. In any subsistence exception there will be the problem of assuring that the animal was taken for a permissible purpose. This may be of considerable concern when there are several subsistence purposes recognized by the exception and/or some commercial use of the animal is permitted. In this situation the subjective intent of the taker may be crucial; i.e., was the animal taken for a legitimate subsistence/commercial use or for some other purpose. Determining this intent will often be a difficult, if not impossible task.

A related problem exists in assuring that the animal is taken in a permissible manner under the terms of the exemption. For example, the sea turtle exception specifies that the green sea turtle may only be taken "in waters seaward of mean low tide." 50 C.F.R. § 227.72(f). Essentially this requires an enforcement agent or willing witness to observe the actual taking as there is no other reliable way to determine after-the-fact if a turtle was taken on land or in the water.

Another enforcement problem lies in regulating illegal trade in endangered or threatened species parts once a subsistence exception has been created. An exception to the prohibitions of the ESA for subsistence taking creates the opportunity to circumvent the law if an initial taking not for subsistence purposes can be disguised as a subsistence take. This was one of the concerns that led NMFS and FWS to deny a sea turtle exception to the Caribbean area -- once a subsistence take is approved for a certain island, the flow of turtle parts throughout the entire region becomes difficult to stop. It was also a principal reason why no sea turtle exception was granted to the Hawaiian Islands. Even with an existing State regulation restricting the take of sea turtles, NMFS and FWS found an increase in takings and in the production of turtle parts for sale to tourists. 43 Fed. Reg. 32800, 32806.

Finally, there may be enforcement problems in simply policing the areas where subsistence taking is permitted. Alaska and the Trust Territory are broad, expansive areas to regulate. It is not realistic to expect a handful of enforcement agents to adequately assure that the provisions of a subsistence exception are being followed in such areas. Without an effective enforcement program, the entire purpose of the exception is thwarted. Lack of enforcement may promote wholesale disregard of the exception by both the persons subject to it and those not otherwise eligible to participate. This in turn may lead to a decision not to extend a subsistence exception to areas where there will be foreseeable enforcement problems due to a lack of manpower, or to curtail an existing exception for the same reason. This was one of the concerns that led to the decision not to create an exception for the Trust Territory in

the proposed regulations. 40 Fed. Reg. 21982, 21984. Despite the fact that an exception was made a part of the final regulations, enforcement problems remain in the Trust Territory.

IX.

CONCLUSION

As stated at the outset, each of the factors discussed above reflect criteria that influenced the Congressional decision to create subsistence exceptions to the ESA and MMPA for Alaskan natives and the NMFS/FWS decision to provide residents of the Trust Territory of the Pacific Islands with a subsistence take under the threatened sea turtle regulations. The importance of some factors varied according to the particular circumstances involved. For example, NMFS and FWS had no need to be concerned about a NMFS/FWS decision to provide residents of the Trust Territory broad range of subsistence uses in shaping the sea turtle exception, as a limited exception for food purposes was all that was ever contemplated. This lessened the importance of certain enforcement aspects of the exception, such as regulating the permissible non-food and commercial uses of the species. On the other hand, the limited subsistence usage allowed by the regulation heightened the importance of another factor, the availability of alternative food sources.

Despite the shifting nature of some of the factors, some fundamental concerns remain constant. Any erosion of the traditional, cultural basis for the subsistence take will seriously undermine the need for such an exception. This appears to be an increasing problem in some areas of the Trust Territory, where a growing cash economy is lessening the need of residents to take green sea turtles for food. NMFS Memoranda, "A Review of Information on the Subsistence Uses of Green and Hawksbill Sea Turtles on Islands Under U.S. Jurisdiction in the Pacific Ocean," supra p. 26. Likewise, a finding that subsistence taking is causing serious deterioration of the population of a threatened or endangered species will likely lead to restriction or termination of the subsistence exception.

By way of summary, the five principal concepts and/or considerations underlying the subsistence exception for the taking of green sea turtles are outlined below. All of these categories should be carefully considered in any decision to limit or expand the current sea turtle subsistence exception.

A. CUSTOMARY, TRADITIONAL NATURE OF THE TAKING

As stated throughout this memo, the traditional cultural nature of the subsistence hunt is the overriding consideration behind any subsistence exception. A finding that the customary reliance upon the taking of green sea turtles for food has diminished among residents of the Trust Territory would raise a serious question as to the continued viability of the exception. Similarly, evidence or a lack of evidence of traditional,

cultural subsistence usage among native groups in areas such as Guam, American Samoa, and the Hawaiian Islands should be very influential in any decision to expand the exemption.

B. PERSONAL OR FAMILY CONSUMPTION

Another important subsistence concept is that the taking must be for the personal consumption of the taker and his immediate family and not for commercial usage. This is clearly the case under the sea turtle subsistence exception, which states that the turtle must be taken for personal or family consumption and which prohibits the sale or transfer of the turtle to non-residents. Evidence of commercial exploitation of sea turtles in the Trust Territory or other areas desiring to come within the exception should weigh against continuation and/or extension of the exemption.

C. PRESENCE OF ALTERNATIVE FOOD SOURCES

This is a particularly important factor with reference to the sea turtle subsistence exception, as the exception only permits a subsistence take for food purposes. Evidence indicating that alternate food sources are available to native groups in a particular region would be very damaging to that region's efforts to come within the exception. Again, this is a primary reason why no exception was granted in 1978 to the Caribbean and Hawaiian Island regions. Should similar evidence indicate that residents of the Trust Territory are no longer dependent upon the sea turtle as a source of food, their claim to a continued exemption would be substantially weakened.

D. EFFECT UPON THE SPECIES POPULATION

While this is certainly an important factor, it apparently is not an overriding concern under the sea turtle exception as there has not been a showing that subsistence taking has had an adverse impact upon the green sea turtle population in the Trust Territory. As previously stated, however, such a finding would probably require a more restrictive exception to further limit subsistence taking. It would seem that if Guam, American Samoa, the Hawaiian Islands or some other area desire to come within the sea turtle exception, a prerequisite should be a showing that the population stocks in the area are sufficient to support a subsistence take and that such a take will not adversely affect the size of the stock.

E. ENFORCEMENT ASPECTS

Finally, enforcement aspects of the exception are a very important consideration. The sheer size of the Trust Territory precludes effective enforcement of the existing exception.

Given this situation, it is debatable if an outright prohibition on the taking of all sea turtles would have any significant impact upon the residents of the Trust Territory. It may be more beneficial to recognize the practical limitations upon enforcing the exception and leave it intact in the hope that over the course of time it will effect a change in the residents' attitude toward the sea turtles. These same concerns should be considered in any decision to expand the exception to additional areas such as the Hawaiian Islands, Guam or American Samoa, although with different factual settings the conclusions drawn may, of course, be different.

Enclosures

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List of Authorities and
Sources of Information

Sea Turtle Subsistence Exception

List of Authorities and Sources of Information

STATUTORY SOURCES

I. Marine Mammal Protection Act of 1972, 16 U.S.C. § 1361 et seq.

16 U.S.C. § 1362 (Definitions)
16 U.S.C. § 1371(b) (Alaskan Native Exemption)
16 U.S.C. § 1379(f) (Transfer of Management Authority to the States.)

Implementing Regulations

50 C.F.R. § 18.3 (Definitions - FWS)
50 C.F.R. § 18.23 (Native Exemption - FWS)
50 C.F.R. § 216.3 (Definitions - NMFS)
50 C.F.R. § 216.23 (Native Exemption - NMFS)

II. Endangered Species Act of 1973, 16 U.S.C. § 1531 et seq.

16 U.S.C. § 1539(e) (Alaskan Native Exemption)

Implementing Regulations

50 C.F.R. § 17.3 (Definitions - FWS)
50 C.F.R. § 17.5 (Alaskan Native Exemption - FWS)
50 C.F.R. § 17.11 (Listing of Sea Turtles as Threatened - FWS/NMFS)
50 C.F.R. § 17.31 (Regulations for Threatened Wildlife - FWS)
50 C.F.R. § 17.42 (Special Rules - Threatened Sea Turtles - FWS)
50 C.F.R. § 222.23 (Jurisdiction over Sea Turtles - FWS/NMFS)
50 C.F.R. § 227 (Regulations for Threatened Sea Turtles - NMFS)

III. American Indian Religious Freedom Act (AIRFA), 42 U.S.C. § 1996

IV. Alaska National Interest Lands Conservation Act (ANILCA), 16 U.S.C. § 3101 et seq.

16 U.S.C. § 3113 (Definition of "Subsistence Uses")
V. Alaska Native Claims Settlement Act (ANSCA), 43 U.S.C. §
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43 U.S.C. § 1602(b) (Definition of "Native")
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II. Endangered Species Act of 1973

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1980). Senate Committee on the Environment and Public Works,
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Reg. 44415. September 26, 1975.

Proposed Regulations, 50 C.F.R. § 227. 40 Fed. Reg.
21982. May 20, 1975.

Final Regulations, 50 C.F.R. § 227. 43 Fed. Reg. 32800.
July 28, 1978.

III. AIRFA

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U.S. CODE CONG. & ADMIN. NEWS, 1262.

IV. ANILCA

Legislative History of ANILCA, as reprinted in (1980)
U.S. CODE CONG. & ADMIN. NEWS, 5070. p. 5177-5178.

MISCELLANEOUS SOURCES

I. Alaskan Native Exception

Memorandum, "Regulation of Bowhead Whale Taking by Alaskan Natives Under the MMPA" Ronald Naveen, GCF, June 5, 1979.

Memorandum, "Participation in Joint Venture for the Taking of Marine Mammals" Carol Teather, GC, May 19, 1975.

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Memorandum, "A Review of Information on the Subsistence Use of Green and Hawksbill Sea Turtles on Islands Under United States Jurisdiction in the Pacific Ocean"; R.E. Johannes for WPPPO, February 6, 1984

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APPENDIX B

National Marine Fisheries Service Response to Public Comments on Subsistence Uses of Green Sea Turtles in the Central and Western Pacific Islands.

On April 20, 1983, the National Marine Fisheries Service (NMFS) published a Federal Register notice (Vol.48, No.77, pp.16925-16926) announcing its intention to review the regulations governing the taking of green sea turtles for subsistence purposes in the central and western Pacific. The notice set forth a schedule for public hearings in Hawaii, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa and opened a comment period for submission of written comments which closed June 21, 1983. The purpose of the public comment period was to collect information on all aspects of the use of sea turtles for subsistence purposes.

Apparently most of those submitting comments perceived the request for information as a proposed change in the regulations. Many of the comments received discussed the status of the green sea turtle populations and either opposed or supported changing the regulation to authorize subsistence taking of green sea turtles in areas other than the Trust Territory of the Pacific Islands (TTPI). Only a few of the comments received provided information on subsistence uses of green sea turtles or rationale for liberalizing the existing exception for subsistence use of green sea turtles in Hawaii, Guam, and American Samoa.

A summary of the comments received and the NMFS response follows:

1. Comment: Twenty-eight commentators stated that the Hawaiian population of green turtles has been reduced and could not sustain a harvest.

Response: Monitoring of the Hawaiian green sea turtle population began in 1973. No significant increase has been demonstrated to date, although the data suggest an upward trend. The NMFS has concluded that the current annual rate of recruitment is too small to support a harvest.

2. Comment: Fifteen comments were received indicating that the economic situation in Hawaii does not meet the prerequisite for the subsistence take of green turtles where a modern cash economy prevails.

Response: Johannes (1984) concluded that Hawaii, Guam, the CNMI, and American Samoa had departed on traditional dependence from the sea and westernization had provided alternatives to a subsistence lifestyle.

3. Comment: Three commentators stated that in order to preserve green turtles as part of a cultural heritage in Hawaii, protection of the depleted stock of turtles would be necessary.

Response: None.

4. Comment: Four commentators stated that subsistence fishing for green turtles should not be permitted in Hawaii because of the difficulty in enforcing any restrictions and the probable harvest of the breeding population of turtles if it were allowed.

Response: The NMFS agrees that enforcement of subsistence taking regulations would be difficult. This was one reason the NMFS and the FWS did not authorize a take of green sea turtles in Hawaii, Guam, and American Samoa in the regulations published when the green sea turtle was listed in 1978.

5. Comment: Two commented that the greatest impact to the Hawaiian population of green turtles has come from commercial operations.

Response: Turtle harvests were uncontrolled in Hawaii from the mid-1800's when the traditional Hawaiian "Kapu" system was abolished until 1974 when the State of Hawaii prohibited commercial exploitation of sea turtles and regulated the taking of green sea turtles for home use. Commercial utilization was likely the major contributing factor to the decline of the Hawaiian green sea turtle population.

6. Comment: A single commentator stated that the biological evidence points to strengthening the restrictive regulations, not liberalizing them.

Response: None.

7. Comment: One commentator noted that the restriction on subsistence take in Hawaii is necessary to prevent commercial trade in meat and jewelry.

Response: Current regulations that authorize subsistence taking prohibit the commercial utilization of turtle products. However, the NMFS recognizes enforcement problems that are likely to be associated with any exception to the prohibitions on the taking of turtles.

8. Comment: Two commentators suggested continuing the prohibitions on taking until the stocks have recovered.

Response: The NMFS agrees that once the stocks are recovered, sound principles of resource management can be applied and a regulated take could occur.

9. Comment: More and better information concerning the status of green turtles in Hawaii is required prior to permitting any subsistence take in Hawaii.

Response: None.

10. Comment: Two commentators indicated that the petitions requesting a review of the subsistence exemption in 50 CFR § 227.27(f) provided no justification for including Hawaii or Guam in such an exemption.

Response: The NMFS determined that there was sufficient evidence of unresolved issues regarding subsistence take of green turtles to justify initiating a review of the regulations.

11. Comment: There are four comments asserting that the Hawaiian population of green turtles are healthy and could withstand a harvest for home consumption.

Response: No significant increase in the Hawaiian green sea turtle population has been detected since 1973 when monitoring began. The NMFS has concluded that the current rate of recruitment is too small to sustain a harvest. Based on comparisons with recovered sea turtle populations in other parts of the world the Hawaiian population is likely to require a decade or more of complete protection before a significant increase may be demonstrated. Anecdotal accounts that turtles are more abundant on foraging grounds are an indication that recovery is underway.

12. Comment: Two comments were received indicating a desire to take green turtles for sport/recreational purposes in Hawaii because it was done in the past.

Response: A sport harvest could be authorized only when the green sea turtle has been removed from the threatened species list.

13. Comment: One commentator stated that green turtles needed to be controlled around the island of Kauai so that they do not deplete the algae that other desirable herbivorous fish utilize.

Response: Changes in abundance of fish species are more likely the result of fishing pressure rather than competition with green sea turtles for a food resource.

14. Comment: Four comments were received regarding the role of turtles in traditional Pacific island religion and mythology. Turtles are an important part of Polynesian mythology, ancient stories of creation, and in many instances are considered the family totem or "aumakua."

Response: The practice of traditional native religions involving turtles would not necessarily be precluded by the continued protection of the green turtle. If the subject of the religious practice in question were to be destroyed the viability of that practice may be diminished.

15. Comment: Four commentators stated that the term "subsistence" needed to be defined more clearly.

Response: The NMFS has obtained a legal review of the term "subsistence" from NOAA General Counsel. This opinion formed the basis of the definition in the review of the sea turtle regulations.

16. Comment: Five comments were received regarding the traditional native medicinal uses of green turtles. Turtle oil was apparently used to treat various skin problems such as burns and rashes. Warm, green turtle blood was used to treat asthma. Turtle oil was also apparently used during post-western contact ranching activities in Hawaii to treat saddle burns on horses. Of these five comments three requested that a take of green turtles be allowed in Hawaii for traditional medical purposes.

Response: None of the commentators indicated that they lived a traditional native Hawaiian lifestyle or that they depended on sea turtles for medicinal purposes. Alternative treatments to the ailments described are available.

17. Comment: Three commentators stated that habitat degradation was the primary cause in the decline of green turtles in Hawaii. Pollution (i.e. runoff and siltation from sugar and pineapple plantations and the ocean dumping of bagasse) was implicated as a major cause of the loss of feeding habitat around the island of Hawaii. Shoreline development was identified as a factor in the loss of nesting habitat in the main Hawaiian islands.

Response: Habitat degradation has contributed to the decline in the Hawaiian population of green turtles. Siltation eliminates foraging grounds and contributes to compacting beach soil so that nests cannot be dug. This may be a factor prohibiting recolonization of beaches on Lanai. The recovery team should consider methods of mitigating the effects of environmental degradation.

18. Comment: Four comments were received asserting that the taking of turtles was part of the "Hawaiian lifestyle" and is a right of the native Hawaiians.

Response: Authorization for a subsistence harvest is dependent on the identification of a culture that is dependent on the taking of sea turtles for its continued existence, evidence that the sea turtle population could sustain the harvest, and documentation that the taking is necessary for the sustenance of the members of the cultural or ethnic group in question. The NMFS found these criteria are only satisfied by a few groups inhabiting the low islands in the Trust Territory.

19. Comment: Two commentators refuted earlier statements and references to the exclusive nature of green turtle use in pre-contact Hawaii asserting that there was no distinction between the alii (nobility) and the commoners as to who could and could not eat turtle.

Response: The dispute over who was allowed to eat turtles in Hawaii is an indication of the quality of the documentation of the native Hawaiian culture. Regardless of the outcome of this dispute the criteria discussed in the previous response must be satisfied before a subsistence harvest could be authorized.

20. Comment: Three comments were received concerning the various traditional methods used to capture turtles in Hawaii. Floating turtle nets made from bark fibers (olona), harpoons, lassos, hooks and line for snagging and simply grabbing the turtles by hand were identified as traditional methods.

Response: All of these methods have been previously identified in the literature. Some of these techniques are still in use today in some areas of the TTPI.

21. Comment: One comment was received indicating that some traditional Hawaiian implements had been made of green turtle bone and are still in use today.

Response: There is an abundance of materials available to fashion implements. Fabrication of these implements does not necessarily depend on the availability of green turtle parts.

22. Comment: Three comments were received concerning the use of green turtles for maintenance of traditional Hawaiian fishponds. One commentator asserted that green turtles were used to control algal blooms and stimulate diatom production for fish food in these ponds. Two commentators were in favor of allowing a take for "traditional" fishpond maintenance.

Response: A review of the literature and investigations by workers in the field (Johannes, Balazs, Kay) produced no evidence of the use of green turtles for fishpond maintenance in pre-contact Hawaii. Turtles were kept in fishponds, but only to be held for later consumption.

23. Comment: One commentator indicated that more information on the status and biology of green turtles around Guam was needed before considering any change in the subsistence exemption.

Response: The NMFS agrees that before a harvest of green turtles is authorized the population must be recovered and enough information available for the application of sound principles of resource management.

24. Comment: Three comments were received asserting the population of green turtles around Guam could not withstand a harvest because of their depleted status.

Response: Although there is no baseline data, loss of nesting habitat to development and disturbance, unregulated take prior to 1978 and illegal taking since 1978 may have contributed to a decline in the green turtle stocks around Guam and the Northern Mariana Islands. There is no new evidence to support the view that the stock(s) are large enough to sustain a harvest, and anecdotal information indicates that the stock(s) are depressed and require protection.

25. Comment: Comments from six individuals asserted that the economic situation in Guam (modern cash economy) does not meet the prerequisite for subsistence taking of green turtles.

Response: Johannes (1984) concluded that Guam had departed substantially from a traditional dependence on the sea.

26. Comment: Four comments were received in favor of permitting an allowance for home consumption of green turtles in Guam. It was argued that because of the apparent continuity of the turtle stock between Guam and the Northern Marianas and the shared cultural heritage of these areas, Guam should be included in the exemption for subsistence take as is the

CNMI. It was further stated that the present regulations discriminate against the residents of Guam and that if turtles require protection, they should be protected throughout their range, not limited to a solitary island amidst many where taking is permitted.

Response: In reviewing the cultural dependence of the CNMI on sea turtles, the NMFS concluded there was not sufficient justification for a subsistence take in the CNMI. When the Trust governing the TTPI dissolves, the CNMI will lose its exception from the prohibitions on the taking of sea turtles. If the Trust is not dissolved by the time the NMFS and the FWS have completed a recovery plan for Pacific turtles, the NMFS will initiate rulemaking to exclude the CNMI from the subsistence taking exception.

27. Comment: One commentator requested an allowance for a sport/recreational take of green turtles in Guam because it had been conducted in the past.

Response: An historical precedent does not justify authorizing a harvest. A sport/recreational take can be authorized only after the population has recovered and is eligible for management.

28. Comment: One comment was received stating that the exemption allowing a subsistence take of green turtles in the CNMI should remain in effect until and unless information is developed indicating that the green turtle stocks around the CNMI are threatened or endangered.

Response: The green sea turtle stock in the CNMI are currently listed as threatened. There is no evidence that the sea turtles in the CNMI are more abundant now than they were in 1978. Anecdotal information indicates the stock is depressed and requires protection.

29. Comments: Three comments were received regarding the subsistence issue in American Samoa. One indicated the need for more biological information regarding the status of the green turtle stocks in American Samoa before any changes to the present regulations are initiated. Another commentator stated that the green turtle population around American Samoa could not withstand a harvest because of its low numbers. The third commentator asserted that green turtles were not needed for subsistence uses in American Samoa.

Response: It is unlikely that any significant new information regarding green turtle stocks around American Samoa will be developed in the near future. Based on available information the green turtle stocks around American Samoa would not likely be able to sustain a subsistence take. No information was presented during the review or in the Johannes paper supporting the need for a subsistence authorization in American Samoa.

30. Comment: One commentator called for a review of the exemption for subsistence take of green turtles in the TTPI due to a marked change in economic status of these island entities.

Response: The dependence on green turtles as a source of protein has diminished in the former district centers and current state or national capitals where cash economies are replacing traditional subsistence

economies. The outer islands still depend a great deal on the availability of green turtles for subsistence purposes because of the lack of protein sources. The taking of sea turtles in these outer islands is a significant factor in maintenance of the Micronesian culture. Once the Trust dissolves, the various Governments will be responsible for management of their marine resources.

31. Comment: One comment was received supporting continued subsistence taking in the Caroline Islands based on biological and not sociological parameters.

Response: Little biological information is available for the area. However, the NMFS agrees as taboos and traditional restrictions on the taking of sea turtles disappear, cultural needs of outer island inhabitants will have to be weighed against biological needs of the turtle stocks in the development of management strategies.



**WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL**

29 August 1994

Dr. William W. Fox, Jr.
Director
NMFS Office of Protected Resources
Room 9334
1335 East-West Hwy.
Silver Spring, MD 20910-3225

Subject: Directed take of green sea turtles

Dear Bill:

At its 83rd meeting, the Council voted to request your office to review the ESA's provisions for a limited take of green turtles by indigenous islanders in the American Flag Pacific Islands for traditional and cultural purposes. Turtles were important items in the diet and in traditional ceremonies of Pacific Islanders inhabiting our region. We envision that a limited take of a few turtles once a year for each island area would probably satisfy the needs of these people to maintain continuity of their traditions.

If permissible under the ESA, the Council wishes to set a limited take quota of green turtle for these purposes. We would also like NMFS to include consideration of such take in the Pacific sea turtle recovery plan.

We look forward to your response, and thank you for your continuing support.

Sincerely,

A handwritten signature in cursive script that reads "Kitty".

Kitty M. Simonds
Executive Director

(fax E94/bh)

c: Council Members
Martin Hochman



Carolinian Affairs Office
Commonwealth of the Northern Mariana Islands

Office of the Governor

Saipu, Mariana Islands 96953
Tel. No. 234-8285 • Fax No. 236-8888

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WESPAC

October 7, 1994

Ms. Kitty M. Simonds
Executive Director
Western Pacific Regional Fishery
Management Council
1164 Bishop Street, Suite 1405
Honolulu, Hawaii 96813

COPY

Dear Kitty:

In May of this year when you had the council meeting, I proposed to the council members a special waiver for a cultural harvest of the green turtle during San Isidro and San Remedio Fiesta. The council made a resolution to the endangered species office and up to now I haven't heard any development on it. Would you update me on this matter?

I will be looking forward to hearing from you. Our Carolinian people are still asking me whether there is a waiver for the green turtle. I promise them to write and inquire about it.

Sincerely,

Jesus M. Elameto
Deputy Executive Assistant
for Carolinian Affairs Office

Concurred by:

Abel R. Olopal
Executive Assistant for Carolinian Affairs Office



**Carolinian Affairs Office
Commonwealth of the Northern Mariana Islands
Office of the Governor**

Saipan, Mariana Islands 96950
Tel. No. 234-8285 • Fax No. 234-5088

Fax Transmittal

October 21, 1996

Ms. Kitty Saimon
Western Fisheries Management Council
Honolulu, Hawaii

Fax No.: (808) 522-8226

Dear Kitty:

Enclosed please find my testimony for Western Fisheries Management Council. I'm still waiting patiently when would the green turtles exemption be given to the Carolinians for their cultural activities.

Sincerely,


JESUS M. ELAMETO
Executive Assistant for CAO

cc: Secretary, DC&CA

Testimony on CAROLINIAN CULTURAL FISHING RIGHTS

**Western Fisheries Management Council
Honolulu, Hawaii, October 21, 1996
prepared by Jesus M. Elameto**

Introduction

The paper is written as a continuation of the same testimony given by the author, Jesus Mareham Elameto in 1994 during the meeting of the Western Fisheries Management Council in the Diamond Hotel on Saipan the Commonwealth of the Northern Mariana Islands. The author is really concerned about the denial of cultural use for green turtles on an average of 5-10 turtles a year. The number of green turtles to be harvested annually by the Carolinians is insignificant to the amount harvested by the other political entities like the Federated States of Micronesia and the Republic of Belau in the Micronesian Region. The paper will also share some historical accounts of the Carolinians eight traditional fishing grounds that Carolinians would traditionally fish and green turtles included. The main objective of the author is to promote and preserve the Carolinian culture in the Commonwealth of the Northern Mariana Islands.

Brief Historical Accounts of the Carolinian Migration

In the review of the literatures, Carolinian CNMI Descent migrated from the outer islands of Chuuk and Yap of the Federated States of Micronesia (FSM). There are four states in FSM, Yap States, Chuuk State, Kosrae State and Pohnpei State. The knowledge of traditional navigation on canoes enables the original Carolinians to migrate to the Mariana Islands. At one time all Pacific Islanders knew traditional navigation. Canoe was the main source of transportation.

Oral history dictates that Carolinians had been sailing to the Mariana Islands prior to the arrival of the Spanish. They would leave their Satawal or Elato Atoll and sail to Guam to carry out their routine

trading and bartering with the Chamorros. When Spanish came, the Carolinians stopped their voyage due to fearing of the Spanish guns and their cruelty. On several occasions, Carolinian canoes were used as a target practice by the western military, particularly the Spanish soldiers. (When the Carolinians first experienced the Spanish gun, and started drippings but there wasn't any knife or spear punching the body. Where is that flashy spear gun that wounded the Carolinian men.) It took several years for the Carolinians to fully comprehend the gun and cannons mechanism. There is a big difference between Spanish gun or cannon and their spear gun.

Carolinian Cultural Festivity

The legacy of the Carolinian Cultural feast on green turtles dated as far back as pre-Spanish era (i.e., prior to the permanent settlement in the Commonwealth of the Northern Mariana Islands), Spanish Administration (1668-1898), German Administration (1898-1914), Japanese Administration (1914-1945) and United States of American Administration (1945 to present). The dramatic change came about when majority of the Carolinians in the Commonwealth decided to vote "no" to the proposed Covenant for the Marianas District which seceded from the rest of the other five political entities and decided to negotiate directly with the United States government. In one of the meetings, marine resources like the ocean was not initially included and this alarmed the Carolinians because green turtles at that time was a threatening species and this would interfere with the Carolinian culture. It was never addressed in any of the provisions as proposed by the Marianas Future Political Status Commission. The concern or priority at that time was to secure affiliation with United States. Eight Carolinian Traditional Fishing Grounds: 1. FaiFai, 2. Failap, 3. Fareyatin, 4. Schepfalúw, 5. Tawalér, 6. Tawafal, 7. Fischigh and 8. Woschol Seppet.

For over three hundred years, Carolinians have been practicing their culture in harvesting these green turtles for cultural festivity. All of a

sudden the cultural use twice a year (i.e., during the San Isidro Fiesta, annual Chief Aghurubw celebration and San Remedio Fiesta) stopped because of endangered species act on green turtles. Up to now many Carolinians questioned the kind of protection that they would get under the covenant or CNMI constitution in the preservation of their language and culture with the signing of the covenant. They are worried that the covenant didn't sufficiently address the kind of cultural activity due to their handicapped as a minority in the Commonwealth. All the Carolinian people wanted is to be able to exercise their cultural festivity under the protection of the United States constitution.



**WESTERN
PACIFIC
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FISHERY
MANAGEMENT
COUNCIL**

18 November 1994

Mr. Jesus M. Elameto
Deputy Executive Assistant
Carolinian Affairs Office
Office of the Governor
Commonwealth of the Northern Mariana Islands
Saipan, MP 96950

Subject: Cultural harvest of green sea turtles

Dear Jesus:

The NMFS has responded to the Council's request for them to review the feasibility of a directed harvest of green turtles for traditional and cultural purposes. The attached letter from Dr. Fox is self-explanatory, and I have also enclosed a previous decision memorandum and background paper on the topic.

The response from NMFS appears to be concerned with "subsistence" take, which is different from a "cultural" take (for lack of a better term). I would suggest that you follow up with a letter directly to Dr. Fox that clearly describes the festival and requirements for a limited turtle take, and explain how "subsistence" take differs from the proposed "cultural" take.

Please let us know if we can be of further assistance.

Sincerely,

Kitty M. Simonds
Executive Director

c: Council Members
W. Fox, NMFS

Enclosures

(elameto.1.94/bh)



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Silver Spring, Maryland 20910

NOV 2 1991

Ms. Kitty Simonds
Executive Director
Western Pacific Regional Fishery
Management Council
1164 Bishop Street
Honolulu, Hawaii 96813

Dear Ms. Simonds:

Thank you for your letter requesting that the Office of Protected Resources review the regulations concerning taking of sea turtles for subsistence purposes. Beginning in 1983, the National Marine Fisheries Service (NMFS) conducted a comprehensive review of the issue of subsistence take in the Trust Territories of the Pacific Islands (TTPI). The findings of this review, outlined in a Decision Memorandum and published as a Final Notice in the Federal Register (January 3, 1985) clearly concluded that exceptions to the subsistence regulations were not warranted at that time. The recommendations further concluded that the take exception for the Northern Mariana Islands should be allowed to expire with the dissolution of the TTPI.

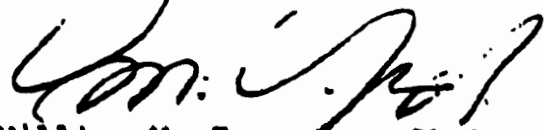
Subsequent to your letter of inquiry, NMFS reviewed the 1983-1985 record, including a contracted report entitled "A Review of Information on the Subsistence Use of Green and Hawksbill Sea Turtles on Islands Under United States Jurisdiction in the Western Pacific Ocean". NMFS is aware of no new information to suggest that the conclusions of these reviews, relative to the necessity for subsistence take in the Northern Mariana Islands, are no longer valid.

NMFS has also consulted the draft recovery plan for the U.S. Pacific Population of the Green Turtle which contains the most current biological information relative to the population status of this species in the U.S. Pacific. Overall, the survival status of the green turtle throughout the insular Pacific region has likely continued to decline due to directed harvest (legal and illegal) and habitat degradation. Further concern is warranted due to the increasing scope and magnitude of the debilitating and often fatal fibropapilloma disease and the incidental capture of green turtles in longline fisheries of the Pacific region. These cumulative threats, combined with the absence of new information regarding the necessity for subsistence take, indicate that an exception to the regulations, as requested, is not currently warranted.



If you have further questions, or if you are aware of any new, relevant information, please do not hesitate to contact me.

Sincerely,



William W. Fox, Jr., Ph.D.
Director
Office of Protected Resources

MEMORANDUM

November 8, 1996

TO: Kitty

FROM: Don

SUBJECT: Report from C. Severance regarding turtle material

The contract report prepared by R.E. Johannes in 1984 at the request of the NMFS consists primarily of a review of the literature pertaining to the subsistence harvest and use of sea turtles in Micronesia (Palau, Yap, Truk, Ponape, Marshall Islands and Mariana Islands), American Samoa and Hawaii. It is apparent from the contract report that Johannes had previously conducted field studies in some of these islands on other fisheries topics, but the report itself is based on very little new or original field research. Consequently, the report is very imbalanced in terms of the amount of information provided for each of the island areas. For some islands there was a sizeable quantity of literature for Johannes to draw on, some of which dealt directly with the historical and contemporary use of sea turtles, but for other islands the literature available was negligible.

For example, seven of the 27 pages of text are devoted to a discussion of sea turtle use in Palau. On the other hand, only one page discusses the Mariana Islands, and of that, a mere three sentences concerns the Northern Mariana Islands. In those three sentences Johannes cites no material or expresses any opinion that would weaken the claim that the subsistence harvest of sea turtles is of cultural and nutritional importance to social groups residing in the Northern Mariana Islands. In fact, Johannes states that the fishing activities of a "sizeable population of Carolinian immigrants" living in the Northern Mariana Islands "come closer to those of a traditional subsistence type ... than do those of the more commercially oriented inhabitants of local origin." Unfortunately, Johannes does not elaborate on the nature or extent of these subsistence fishing activities.

Given the shortcomings of Johannes' report, it is inaccurate for NMFS to state that this study supports the agency's decision that a subsistence exception for one or more cultural groups in the Northern Mariana Islands is unjustified.



UNIVERSITY
OF HAWAII
HILO

To: Ms. Kitty Simonds & Council Staff 11/16/96
From: Craig Severance, SSC *Craig Severance*
Subject: Data needs relevant to the CNMI request for a ceremonial
take of Green Sea turtles by Carolinians.

I have completed a quick review of the available literature and am continuing to followup on direct contacts with Anthropologists and RPCVs who have lived and worked with Carolinians in the CNMI. I have found one anthropologist who lived on Agrigan in the 1970's and observed no turtle use and one fisheries person who did observe some ceremonial use on Saipan. It appears to me that NMFS made the decision to let the USTTPI exemption for turtle use lapse on the basis of a literature search that turned up little positive evidence for continuity of cultural practices by Carolinians in the CNMI. No fieldwork was done and little attention was given to the Carolinians. A lack of positive evidence in the literature does not demonstrate that these practices did not or do not exist. There is very little anthropological or other descriptive social science literature on the Carolinians in the Marianas, and that which exists is narrowly focussed on aspects of history, or cultural values and does not touch on ceremonial practices or use of marine resources. Ongoing cultural practices are very often overlooked and un-recorded, especially among culturally different people. My impression is that the Carolinians were negatively stereotyped as being backward bumpkins by the Chamorro majority during the TT days and chose deliberately to isolate themselves somewhat and take parts of their cultural practices underground where they would not be frequently observed by Chamorros or other residents and thus would not likely be recorded.

The evidence is adequate enough, I believe to argue that Carolinians in the Central Carolines have had continuity in subsistence and ceremonial use of turtles and that turtles have important cultural significance for them. The problem becomes one of extrapolating cultural practices from one location to the other following anthropological assumptions of expected cultural continuity, especially among a submerged minority and /or finding credible evidence. It is confounded by the possibility of data being manufactured to support a claim that will enhance a subgroup's identity and visibility in the larger society. This makes field interviewing on the issue rather delicate, sensitive and difficult. One anthropologist who worked very successfully with Carolinians in the Carolines has had difficulty gaining entree into the Saipan Carolinian Community.

Social Sciences

200 W. KAWILI STREET
HILO, HAWAII 96720-4091
PHONE: (808) 933-3460
FAX: (808) 933-3737

FROM: SOCIAL SCIENCES DIV

FAX NO. 1 18889333737

11-18-96 07:52A P.02

Post-it Fax Note	7871	Date 11/18	# of pages 2
To	Kitty Simonds	From	Craig Seaman
Co./Dept.	& Council Staff	Co.	U14 1410
Phone #		Phone #	808 933-3460
Fax # (808) 522-8226		Fax #	808 933-3737

However this does not mean it is an impossible task. Careful informal interviewing by someone with some trust and credibility in the community may help produce some evidence, if it is there. Maintaining informant confidentiality may be difficult, but may also not be absolutely necessary. Getting credible, identifiable elder testimony may be necessary. A methodology similar to that used in the Samoa Native Rights research by Franco and myself might be helpful here. If photos and sketches of the turtles are presented to elders they may elicit independently confirmable cross-checkable information about ceremonial uses and knowledge of the turtles behavior and anatomy. Sketches might be used to check some Carolinians ability to distinguish greens from others or even males from females should a recommendation for a male only hand take be developed (as suggested by one of my contacts!?). Some guarantee of protection from prosecution by NMFS would be needed to elicit statements about takes since the exemption was lost, because its likely that continued takes ("poaching" as a cultural right!) occur there as they do here.

RECOMMENDATIONS:

1. That efforts to more thoroughly review the literature and to contact social scientists and RPCVs continue as a way of updating and perhaps correcting the Johannes & Lecky/Nitta reports which were not fieldwork based and paid little or no attention to the Carolinians.

2. That the Council consider letting a small contract for some field interviews, preferably by someone known to and trusted by the Carolinian Community. This person would not have to have an advanced social science degree but they would need some training and experience as well as entree into the community.

3. That Council staff review the ESA and existing exemptions (ie eagle feathers??) in the context of the kinds of "new information" likely to be required by NMFS (see Fox letter to Simonds, Nov 2, 1994)

4. That Council staff review definitional differences of a "subsistence" vs a "Ceremonial Take" in the context of the ESA and "Protection of Indigenous Fishing Rights" (c.f. Borja's testimony, June 1, 1995).

I'm happy to continue my own efforts in 1. above as time allows and to try to identify potential contractors for 2. above. While I might be willing to consider participating or helping in such a contract, I'm quite reluctant to link the turtle issue in any way to our proposed PFRP project which is facing the possibility of being revised to gain formal acceptance by the CNMI authorities.

DRAFT

Proposed use of Turtles for Cultural Purposes

Statement by Benigno Sablan
and Jesus Elameto
Presented by Richard Seman.

Our leaders among the Carolinian people in the Commonwealth of the Northern Marianas have asked me to humbly repeat their request that the National Marine Fisheries Service consider their cultural right to take a very limited harvest of Green sea turtles to be used for cultural and ceremonial purposes. Our leaders in the Carolinian Affairs Office in our government asked you Council members at the 1994 meeting in Saipan if there could be a waiver for a cultural Harvest during the San Isidro and Santa Remedio Fiesta. The NMFS turned down this request based on their consultants report done for the whole Trust Territory of the Pacific Islands in 1984 and by saying there was no new information showing the need for continuing or allowing a subsistence harvest.

This report did recognize the subsistence and cultural/ceremonial importance of green turtles for the Carolinian People in the Caroline Islands, those low outer islands of Yap District but the report said very little about our Marianas Carolinian people from the same culture. These are the people who brought their culture with them when they migrated to our island of Saipan in the Marianas. What the report did say

was that the Carolinians come closer to a subsistence style of life than the other groups in the Marianas. We do not believe that the NMFS report paid enough attention to the native rights of our Carolinian people or did them the justice of examining their cultural practices in detail.

The NMFS report was not based on any interviews with our people or on any real research on the culture. It was like a library research but there are many things and cultural practices in both our Chamorro and Carolinian cultures that are not written down in libraries. These are the things we Pacific people know because we practice them, we are told about them by our elders, and sometimes because we are told that we can no longer practice them.

When the Green and Hawksbill turtles were first listed under the United States Endangered Species Act our Carolinian People were covered by an exemption for a subsistence harvest of the threatened green turtles because we were still part of of the Trust Territory and because the NMFS did recognize the importance of turtles to the Carolinians in Yap District as well as to other peoples in other parts of the Trust Territory. I am sure that some of our Carolinian people will tell you if they are asked in a right and fair way that they did take and eat some green turtles during this time. Our Carolinian People should have been able to keep their exemption after the Trust Territory Government ended but NMFS did not allow them to do so and insisted that the

exemption end with the Trusteeship. Since when do cultural practices become dictated by a change in political status?

When the people of the Northern Marianas negotiated the Covenant to become a Commonwealth of the United States they did not negotiate away any of their native rights to harvest, use and manage the marine resources in their waters. Ever since the Commonwealth has been selfgoverning we have had a very hard time getting The NMFS to recognize our right to manage our own marine resources. Now we ask the Council and MAFAC to encourage NMFS to consider this request on behalf of our Carolinian people. We understand the meaning of an exemption to allow a subsistence harvest for certain groups of people who depend on the use of green turtles or other threatened species for their very survival. We understand that the turtles need to survive too. That is why we are requesting a review and consideration of this special request. ~~A subsistence harvest exemption would support our peoples nutritional needs but also might take as many turtles as can be caught.~~ A cultural or ceremonial harvest would be very important to the survival of our Carolinian People's culture and cultural practices. In the old days the Carolinian canoe houses on Saipan were ranked and used by the high chief of the highest clan. The head of the turtle always had to be presented to the high chief.

A cultural or ceremonial harvest would be limited to a very small number of turtles, no more than 3-5 per ceremony, perhaps

10 to 15 per year. We would be willing and proud to have NMFS observers watch or participate. NMFS could send consultants or its own staff to learn about our cultural practices with turtles. NMFS or the Council should sponsor real research with our Carolinian people before assuming that their cultural practices have been lost or are unimportant.

Such a cultural and ceremonial use would only happen in preparation for ~~two~~^{three} of our most important festivals. These are the Santa Remedio Festival that happens every year in ~~and~~ October, ~~and~~ the San Isidro fiesta that ^{is} celebrated ^{in recognition of} Chief Agurubw in May. Chief Aghurubw is celebrated because he was the master navigator who led his Carolinian people to Saipan and settled there in the early 1800's after the Spanish colonizers had reduced our Chamorro population and forceably moved all the Chamorros to Guam. Our Carolinian People have been trading and living with us since before Spanish times and have maintained contact with their relatives in the Carolines.

It is unfair that Carolinians in the FSM can continue to celebrate the taking of a limited number of turtles while our ^{own} Carolinian people cannot. We are only asking for a much smaller take than ^{what} NMFS ~~allow~~ allows in the longline fishery. Thank you for this opportunity to address you all on this important issue. We look forward to hearing your response.



Carolinian Affairs Office
Commonwealth of the Northern Mariana Islands
Office of the Governor

Saipan, Mariana Islands 96950
Tel. No. 234-6385 • Fax No. 235-5088

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WESPAC

February 25, 1997

Ms. Kitty Simonds
Executive Director
Western Pacific Fishery Management Council
1164 Bishop Street, Suite 1405
Honolulu, Hawaii 96813

Dear Ms. Simonds:

The Carolinian Affairs Office received the fax in reference to the proposal in reinstating the exemption of the Green Sea Turtle from the U.S. Endangered Species Act regulations.

This office fully support this proposal in its entirety and the appointment of Mike McCoy to conduct the research.

The CAO staff is looking forward in helping to get this project off the ground. Please keep us abreast with the proposal's progress.

Respectfully,


SIMEON W. ODOSHI
Acting Executive Assistant for CAO



The Senate

Eleventh Northern Mariana Commonwealth Legislature

P.O. Box 129, Saipan **RECEIVED**

THOMAS P. VILLAGOMEZ
Senator (Kiva)

SB APR -6 A9 24

WESPAC

March 30, 1998

Mr. Kirby Simonds
Western Pacific Fishery Mgmt. Council
1164 Bishop Street, Suite 1405
Honolulu, HI 96813

Dear Mr. Simonds:

As a member of the Senate of the Northern Mariana Islands, I am in full support of the intent of the Federal Endangered Species Act, which provides for the protection and conservation of various endangered species of fish and wildlife. The provisions of this Endangered Species Law provide for programs to ensure that future generations will be able to enjoy these species for their ecological, educational, historical, and scientific value, among others.

The green sea turtle is one of these species covered by the Endangered Species Act and is found here in the Northern Mariana Islands. While I endorse the purposes of the law, I find that there should be a balance between species protection and the survival of the customs and traditions of the Chamorro and Carolinian people. For this reason, I am requesting for a Traditional Take permit, to allow a limited exemption to the prohibition on the taking of green sea turtles.

Six major fiestas are observed annually in the Commonwealth of the Northern Mariana Islands (CNMI). These fiestas are of great importance to the indigenous Chamorro and Carolinian people. The green sea turtle is one of the main dishes traditionally served during these ceremonies. I am therefore requesting for a Traditional Take permit for the limited taking of sea turtles so that the local customs and traditions can be honored. A permit to take five sea turtles per fiesta is requested, for a total annual taking of thirty green sea turtles. The dates and locations of the fiestas are as follows:

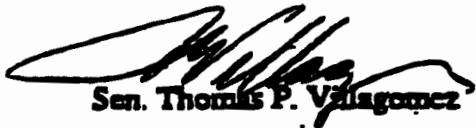
1. May 4 - San Jose Fiesta, Tinian
2. May 5 - San Jose Fiesta, Saipan
3. May 12 - San Isidro Fiesta, Saipan
4. Oct. 5 & 6 - San Francisco de Borja Fiesta, Rota
5. Oct. 6 - Nuestra Senora delos Remedios Fiesta, Saipan
6. Nov. 24 - Kristo Rai Fiesta, Saipan.

Ms. Kitty Simonds
March 30, 1998
Page 2

Although, the population of green sea turtles are not as abundant as they once were they are still plentiful here in the Northern Marianas. The issuance of a permit granting the CNMI a limited exemption to take a small number of sea turtles would not appreciably reduce the sea turtle population in the CNMI, and at the same time it would ensure continued practice and preservation of the customs and traditions of the Chamorro and Carolinian people.

Si Yu'us Ma'asi and I look forward to your most favorable response upon this request.

Sincerely,


Sen. Thomas P. Valagomez



**WESTERN
PACIFIC
REGIONAL
FISHERY
MANAGEMENT
COUNCIL**

April 10, 1998

The Honorable Thomas Villagomez
Northern Marianas Commonwealth Legislature
P.O. Box 129
Saipan, MP 96950

Dear Senator Villagomez,

Thank you for your letter dated March 30, 1998 in which you expressed interest in applying for a "traditional take" of green sea turtles. Please find enclosed a report by Mike McCoy which examines this issue in detail. On page 47 the report lists five reasons for which sea turtles can be taken under federal law. These reasons do not include traditional or ceremonial purposes. However, the report outlines an alternative approach in which a take of turtles is requested for "educational purposes" (#2) or as part of "the operation of a conservation program ... conducted by an employee of the NMFS [National Marine Fisheries Service] or FWS [US Fish and Wildlife Service], or a designee" (#4). The report goes on to describe how a community might justify such an application based, in part, on cultural considerations, and the possible difficulties in receiving an approval from NMFS and FWS.

NMFS and FWS are the federal agencies responsible for evaluating applications for sea turtle takes. I have forwarded your letter to these agencies for review.

Please do not hesitate to contact me, should you have any questions.

Mahalo!

Sincerely,

Kitty Simonds
Executive Director

cc: Eugene Nitta, NMFS PIAO
Kitty Jensen, FWS Ecological Services



United States Department of the Interior

FISH AND WILDLIFE SERVICE PACIFIC ISLANDS ECOREGION

300 Ala Moana Boulevard, Room 3-122
Box 50088

Honolulu, Hawaii 96850

In Response Refer To: ELG

APR 21 1998

Honorable Thomas P. Villagomez (Kiyu)
Eleventh Northern Marianas Commonwealth Legislature
CNMI Senate
P.O. Box 129
Saipan, MP 96950

Dear Senator Kiyu:

During our meeting in early March at Senator Morgen's office you asked for assistance from the Fish and Wildlife Service (Service) to apply for an exception to the Federal Endangered Species Act's prohibitions against take of the federally listed threatened green sea turtle (hagan). I understand that there are several Chamorro and Carolinian fiestas in the Commonwealth of the Northern Mariana Islands (CNMI) where green sea turtle is a traditional dish served during these ceremonies, and you would like for this custom to be able to be continued by current and future generations.

In response to your request, Mr. Eric Gilman of our Mariana Islands Office on Saipan contacted staff from the Western Pacific Fishery Management Council (WESTPAC) and National Marine Fisheries Service to request their attention to your concerns. In response to Mr. Gilman's request for these agencies to assist you, and in response to your letter to WESTPAC of March 20, 1998, last week at a Council meeting in American Samoa, WESTPAC agreed to coordinate with the National Marine Fisheries Service, University of Hawaii Sea Grant, and my office to organize a workshop in the CNMI to discuss the findings of a 1997 report prepared by WESTPAC that addresses the traditional use of the green sea turtle in the CNMI. I believe that Mr. Seman of the CNMI Division of Fish and Wildlife provided you with a copy of this report at our meeting in March.

Chamorro and Carolinian traditional consumption of threatened and endangered wildlife such as the green sea turtle and the fruit bat can only be preserved if wildlife conservation programs are successful. It may be feasible and desirable for the CNMI to use the limited traditional take of green sea turtles as part of a community educational effort to foster public support for conserving the turtle. Educating the

community to gain their support for conserving this threatened species is an important factor in any attempt to reduce the poaching threat that currently exist for this species. I understand that there is no provision for a "Traditional Take" permit under the Endangered Species Act or the National Marine Fisheries Service's regulations. However, WESTPAC's report identifies five reasons that could be used by the CNMI to apply for take of the green sea turtle pursuant to 50 CFR section 227.72. As described in this report, inclusion of a reason other than what is allowed by the law and regulations would require an amendment to the Endangered Species Act. The WESTPAC report suggested approach is to apply for take for educational purposes or as part of the operation of a conservation program. The proposed workshop to discuss this report will likely provide more ideas on how the CNMI could obtain authorization for take.

During our meeting in early March, we also addressed why the CNMI is currently ineligible to receive grants under the Endangered Species Act section 6 grant program which, this fiscal year, is providing close to 1.5 million dollars to the Pacific Region. Currently, these Pacific Region dollars are going only to Hawaii and Guam. CNMI Public Law 8-19, which directs the CNMI Division of Fish and Wildlife to give the CNMI's Aging Program all confiscated fish and wildlife, including federally listed species such as the green sea turtle, violates the Federal Endangered Species Act. CNMI House Bill 11-75, which unanimously passed the House in February 1998, would amend P.L. 8-19 to exclude allowing the consumption of federally listed species, and if it passes, will allow the CNMI to receive grants under the section 6 program.

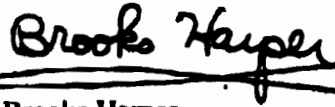
Many CNMI programs would potentially benefit from the grant funds that the CNMI could receive if the Senate passes H.B. 11-75. For instance, the Rota Habitat Conservation Planning project is in need of a source of funding to implement Rota wildlife conservation projects. Without the passage of H.B. 11-75, Rota will have to identify an alternative source of funding for their planned conservation programs. Without funding assurances for the Rota HCP, the Service would have to reject CNMI's request for an Incidental Take Permit, thus indefinitely delaying the Agricultural Homestead Project on Rota that has been identified to us by Mayor Manglona as his highest priority project.

Also, the CNMI Board of Public Lands has expressed a desire to prepare a Saipan and Northern Islands Regional Habitat Conservation Plan, in part, to reduce the conflicts between Saipan development and the Endangered Species Act. The section 6 grant program could be a potential source of funding for the CNMI to prepare and implement this plan. You explained that you are currently unwilling to support the passage of H.B. 11-75 because you object to prohibitions on the consumption of the green sea turtle that prevent the continuation of traditional practices. I am hoping that the collaboration and support that is being provided in response to your concerns will allow you to now support the Senate's passage of this bill as we discussed in our early March meeting. Please understand that my desire in promoting the passage of this bill is not because of any direct benefit to the Service, rather I see it as a way to provide the CNMI additional resources to address endangered species conservation needs that can help in resolving longstanding development issues like Rota's Agricultural Homestead. Amending P.L. 8-19 would also provide support for a CNMI application for take of green sea turtles by demonstrating commitment for turtle conservation programs.

My local Service representative, Mr. Eric Gilman of the Mariana Islands Office (phone: 670-234-5432) will coordinate with you, CNMI agencies, WESTPAC, the National Marine Fisheries Service, and Sea

Grant to help organize the proposed workshop in the CNMI to discuss options for requesting authorization for limited take of the green sea turtle and development of a turtle conservation education program. I look forward to continuing our collaborative effort to ensure that Chamorro and Carolinian customs and the CNMI's threatened and endangered wildlife are preserved.

Sincerely,



Brooks Harper
Field Supervisor

- c: Senator Juan P. Tenorio (Mogau), CNMI Senate
- Senator Paul A. Manglona, President, CNMI Senate
- Representative Manuel A. Tenorio (Brown), CNMI House of Representatives
- Mayor Benjamin T. Manglona, Mayor of Rota
- Mr. Bill Hocog, Resident Director, Rota DLNR
- Dr. Joaquin A. Tenorio, Secretary, CNMI DLNR
- Mr. Richard B. Seman, Director, CNMI DFW
- Mr. Tomas B. Aidan, Chair, CNMI Board of Public Lands
- Mr. Thomas E. Clifford, CNMI AG's Office
- Mr. Greg Schroer, Resources Northwest
- Mr. Eugene Nitta, National Marine Fisheries Service
- Ms. Kitty Simonds, WESTPAC
- Dr. Charles Helsley, University of Hawaii Sea Grant College Program
- Mr. Eric Gilman, USFWS Mariana Islands Office



**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE**

**Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213**

**PACIFIC ISLANDS AREA OFFICE
2570 DOLE STREET
HONOLULU, HAWAII 96822-2396**

October 16, 1998

Senator Thomas P. Villagomez
11th Northern Marianas Commonwealth Legislature
P.O. Box 129
Saipan, MP 96950

Dear Senator Villagomez:

This responds to your March 30, 1998 letter requesting a "Traditional Take" permit under the U.S. Endangered Species Act of 1973 (ESA), as amended, to allow the directed harvest of up to thirty (30) green sea turtles (*Chelonia mydas*) per year in the Commonwealth of the Northern Mariana Islands (CNMI) for human consumption at six major fiestas. Please accept my apologies for our delay in responding to your correspondence.

Your request for a "Traditional Take" permit is similar to the August 29, 1994, request that was made by the Western Pacific Regional Fishery Management Council (WPRPMC) to the Director of the National Marine Fisheries Service (NMFS) Office of Protected Resources (copy of letter enclosed). In that letter, Ms. Kitty Simonds requested that NMFS undertake a review of the provisions of the ESA and, if possible, allow a limited take quota of green sea turtles for traditional purposes in the CNMI. NMFS responded to Ms. Simonds' request in a letter dated November 2, 1994 (copy enclosed). In our response, we informed Ms. Simonds that the information available on the current status of the green sea turtle in the Pacific, combined with the absence of any new information regarding the necessity for traditional take, did not warrant an exception under the ESA. Your March 30, 1998, letter does not provide new information on the status of the green sea turtle in the CNMI or on the necessity for traditional take.

The Endangered Species Act allows permits to be issued under certain circumstances for the directed take of endangered or threatened animals (16 U.S.C. Section 1539(a)(1)(A)). In general, however, directed take permits are issued only for scientific purposes or to enhance the propagation or survival of the affected species. It does not appear that the basis of your request "Traditional Take" to allow local customs and traditions to be honored) would qualify for a permit.

If you wish to submit a permit application, please be advised that under a 1977 Memorandum of Understanding between the U.S. Department of Commerce and the U.S. Department of the Interior, the jurisdiction over all listed species of sea turtles, including green turtles, is shared between NMFS and the U. S. Fish and Wildlife Service (USFWS).



1. The distribution and status of the green sea turtle in the CNMI, including information on nesting areas and important foraging sites, and how the species could withstand the requested level of take
2. Information regarding the genetic identity of green sea turtles in the CNMI, including the portion of the population that would be subject to direct harvest, and how the harvest of these individuals will impact the nesting populations to which they belong
3. The probable indirect effects and cumulative effects of allowing a directed harvest
4. Information on how nesting beaches and foraging areas are currently protected and how such protection will ensure the conservation and recovery of the species should a directed harvest be authorized
5. Information on how the harvest of green sea turtles would further the conservation of the species and enhance the likelihood that this species may be removed from the protection of the ESA
6. Information on conservation measures that the CNMI would undertake to offset the level of take being requested

I understand that the CNMI Division of Fish and Wildlife is interested in hosting a workshop on Saipan in November to discuss this issue further with representatives of NMFS and the USFWS. I hope this letter serves to clarify some of the information the Federal agencies would need to consider in any future permit application or request for a special rule. We plan to attend the workshop to answer any questions that you or other interested individuals may have on this subject.

Sincerely,



Charles Kamella
Administrator
Pacific Islands Area Office

Enclosures

cc: CNMI-DFW
USFWS-Honolulu
F/PR
GCSW
GCF
WPRFMC
SWR
SWC - M. Laurs