

# Turtle Dance: Negotiating Sea Turtle Conservation and Western Pacific Island Cultures



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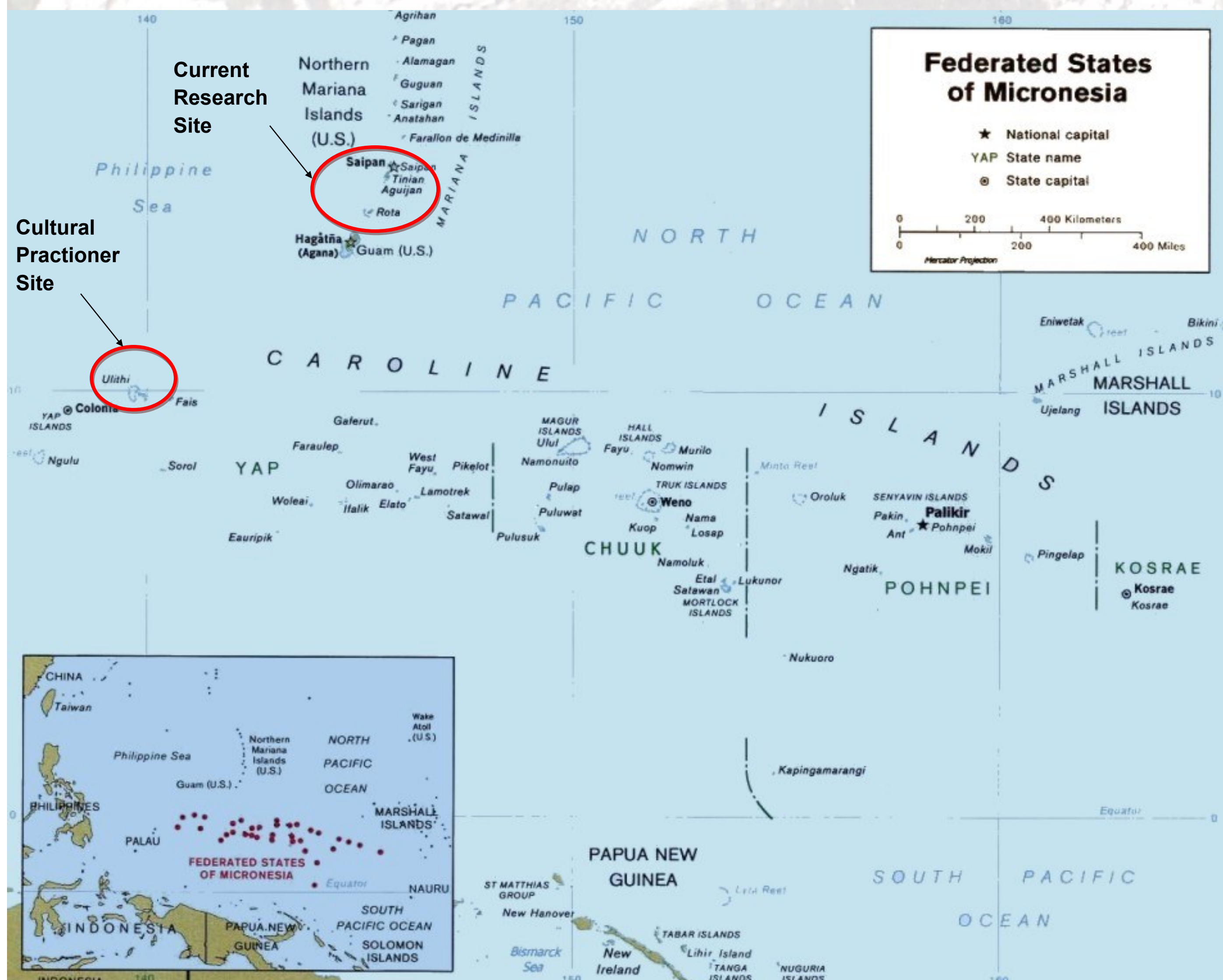
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Jessy Hapdei (1st on left) helps load green turtles into boats after two nights of hunting nesting females on Pig Island, Ulithi Atoll. Photo credit: James Hapdei circa 1981.

**ABSTRACT:** Resource management using western scientific techniques has fallen short of adequately protecting and conserving both the green and hawksbill sea turtle species in the Western Pacific. As numbers continue to decline, we investigated if a collaborative approach that combines indigenous and western knowledge systems would provide solutions that sea turtle managers and conservationists have been searching for. We discuss a life history account by a Western Pacific cultural practitioner to assist in answering research questions of this study. Our primary research question for this project was: How does Yapese indigenous hand-capture of sea turtles, use of sea turtles for subsistence and trade, and traditional conservation measures of sea turtle hunting on Ulithi Atoll, Yap State, Federated States of Micronesia contribute to conservation and management of turtle species today? The purpose of this study was to develop new strategies for sea turtle conservation policies and management practices in Micronesia from traditional ecological knowledge of this region. Based upon this goal, study objectives were: 1) to describe an indigenous method for sea turtle capture near shore, 2) to describe cultural traditions relevant to sea turtles, 3) to explain how these indigenous methods and cultural traditions have contributed to past conservation of sea turtles, and 4) to discern implications of these customary methods and traditions for modern sea turtle conservation and management. To accomplish these objectives I interviewed Jessy Hapdei, an indigenous fisherman from the island of Ulithi, Yap who currently works as a contractor for the Commonwealth of the Northern Mariana Islands (CNMI) Department of Lands and Natural Resources (DLNR) sea turtle program on the island of Saipan. He was the clear choice as the focus for my interviews not only because of his background and training in Micronesian traditional ecological knowledge, but because he is currently utilizing indigenous knowledge in coordination with a project located within the same region that also uses western knowledge systems.



Map of Ulithi Atoll, Yap State, Federated States of Micronesia and the Commonwealth of the Northern Mariana Islands, USA. Ulithi, Yap map location where interviewee gained his indigenous knowledge by hunting sea turtles. Marianas Archipelago map location where CNMI DLNR conducts current research. This map is adapted from www.surfrtrip.com.

**OBJECTIVE 1:** To describe an indigenous method for capturing sea turtles in near shore waters.

From this study we describe an indigenous method for capturing turtles: indigenous hand-capture technique refers to traditional free-diving and hand-capture skills learned from a cultural knowledge base of Micronesian village elders, to capture turtles. Two methods for capturing *adult* turtles are described here: 1) Front method—in which the free-diver slides underneath the turtle, belly to belly and the turtle's flippers are raised and rested upon the shoulders of the free-diver while the neck is pushed by the diver's forearms, and 2) Back method—in which the free-diver approaches the turtle from behind, the diver's belly against the turtle's shell and the turtle's flippers are raised and pinned behind its head. The single method used for capturing *immature* turtles involves a free-diver approaching the turtle from behind grabbing simultaneously with one hand on its nuchal notch (anterior portion of shell) and its supracaudal scutes (posterior portion of shell) leaving the turtles front flippers free to help swim and guide to the water's surface.

Interviews with Jessy revealed that direct familial relations, father or uncles, would teach turtle capture methods to their children. During training only immature turtles were captured and then released, they were not taken to the chief for slaughter (which was the protocol for adult green turtles). After member check it was verified that only adult green turtles were captured as a food source, immature turtles (< 80 cm in length) were not eaten. When asked if Jessy had noticed over time, fewer children in the village taught how to catch turtle he responded; "Yeah, there are less people doing that nowadays, not that much, not all the people they can do that." This may translate to fewer and fewer villagers maintaining sea turtle hand-capture knowledge and skill sets, and in time, loss of this knowledge and other customs that are reliant upon it.



Jessy Hapdei (5th from left) dances on the island of MogMog, Ulithi Atoll. Photo credit: James Hapdei circa 1986.

**OBJECTIVE 2:** Describe Micronesian cultural traditions relevant to sea turtles.

The theme of cultural practices revealed several enlightening traditions. For instance, when a turtle was captured it was brought into MogMog, the island of the high chief, by canoe or boat. The boat would come into the island at a certain location and a fisherman onboard would be dancing the "turtle dance." Through these actions, villagers would know that a turtle was being brought to the chief. The turtle dance entailed a man on the bow (of the incoming boat containing the turtle) dancing as though he were making the same motions as a mating turtle. When asked why he considered the turtle dance to be dirty, Jessy replied "How do the turtle dance? That's the only dance they do when they're mating, flipping around and poking the other one in the back!" Village women would come out onto the beach from the women's house and make similar motions as if they were a female turtle on the receiving end of the male turtle mating ritual or played the part of the male turtle in the dance motions as well. Unless, that is, they were related to the turtle dancer, then they stayed in the house cause it was inappropriate for women family members to see their brothers or sons dancing in this sexual fashion. This dance is intriguing as it cuts across strict gender roles for women concerning capture of green turtles.

Although Ulithian culture is based on a matriarchal society where women hold power to lands and properties, when it comes to gender roles involving green turtle capture, they hold little power. Women are not allowed to capture turtles or fish. They are not permitted to witness slaughter of green turtles by the chief. They are only allowed to cook turtle meat after it has been butchered and brought to the house by men. There are some perks to being a woman however, after turtles are butchered, what is considered the best meat, white chest meat, is bestowed upon the women's house. When it is time to do the turtle dance they can enjoy play acting roles of mating male turtles while making phallic hand gestures to male hunters onboard the incoming boat.

Turtles were slaughtered on a special rock or foundation called a roo'long that was located next to the high clan men's house on MogMog island. Men from different clans sat on rocks placed around this foundation and watched turtles being slaughtered. They would then divy up parts that belonged to various clans and bring them back to their homes for cooking. White chest meat went to the woman's house, the head would go to the chief, and distribution of remaining parts depended on which clan you were from. The Lamwadah clan (Jessy Hapdei's family) received intestines because they symbolized the fact that this clan took care of all the other islands people and like intestines, people were stretched along a far distance.

Also under the cultural practices theme was how items of great worth including hand-woven lavalavas in conjunction with hawksbill turtle shell as bracelets, rings shaped out of the shell, or as raw scutes was used as a form of forgiveness or payment. If a rule was broken and amends were asked of a neighboring village, the chief would be sent vertebral scutes or the biggest, thickest center plates of hawksbill shell. Hawksbill shell was used as money when compensation was required in return for use of land belonging to a deceased family member.



Men from different family clans—including Jessy's (his great uncle can be seen on top right smoking a cigarette) in Ulithi Atoll, Yap wait patiently for their designated portion of slaughtered green turtle for consumption. Photo credit: www.pacificworlds.com

**OBJECTIVE 3:** How have cultural traditions contributed to the past conservation of turtles?

Traditional conservation in Ulithi, included size limits, closed zones, seasonal takes, limited takes, and enforcement practices. Hunters would not just go out and capture as many green turtles as they wanted, they were told by certain elder community members how many turtles to bring back. Hunters would only take those animals which were considered larger adults; this factor was an outward sign that they had had a chance to mate and nest for several seasons, and had thus replaced themselves in the gene pool before they were killed. There were certain seasons in which elders would allow hunters to take turtle eggs and closed seasons when hunting was not permitted; to allow turtles and birds to nest without human disturbance. A system was in place similar in design to Marine Protected Areas in which closed or seasonal fishing zones were enforced. Before villagers from other islands were allowed to fish (or hunt turtle) in waters of neighboring islands, they were required to ask the chief of said waters for permission and give him two fish as an "entrance fee." If they did not ask prior permission and were caught in another island's zone, their boat would be confiscated as enforcement action of this rule and would only be returned upon atonement (gifts to the chief). Closed zones were also in effect for local villagers during times of fish spawning events to prevent overfishing. With local villagers always on the lookout for boats in the wrong areas at the wrong times or strange boats sighted inside their private waters, these rules seldom went unpunished when broken.

Green turtles were always brought to the highest chief on MogMog island for his blessing as to whether it would be slaughtered or released. According to Jessy sometimes just the time it took to travel to this other island by boat or the gas money involved in doing so would make or break your decision to capture a turtle. Depending on your island's location within the atoll, MogMog could be up to 20 miles away and because every clan was given a certain portion of the meat, when all was said and done, costs for the fisherman may well have outweighed the benefits of capturing a green turtle. Therefore the active obedience to the chief system most likely helped to conserve green turtles. On the other hand, consideration of these costs nowadays may be the reason for take of more turtles out of line with the culture. In other regions throughout the Pacific Ocean where chief systems have eroded and populations have increased there is an unsustainable number of green turtles taken.

Enforcement of crimes which involved illegal take of green turtle in Ulithi, Yap was strict and effective. When a green turtle was killed without permission of the high chief, not only was the individual who was caught poaching punished but that person's entire village was punished as well. Punishment entailed: no persons permitted to enter the water to fish, to swim, to bathe, or to hunt turtle, for a period of time, upwards of several months, or until forgiveness had been granted by the chief after gifts were afforded in atonement. "You're not even allowed to touch the sea." For Ulithians whose main food source was obtained from the sea, this was severe and rather effective punishment for poaching green turtles. "It's not always broken cause that's a very risky thing to do cause you know you're not only punishing yourself, your punishing your family, the whole island." To Jessy's knowledge, rules were only broken three times during the 22 year period he lived in Ulithi. These stringent rules and penalties certainly must have gone a long ways towards conservation of green turtle resources.

**OBJECTIVE 3. (CONT.)**

Another traditional enforcement mechanism supporting the chief system's rules was existence of "undercover cops" or citizens throughout each village community who were designated as the neighborhood watch-guard for green turtles. Basically, these persons identities and responsibilities were undisclosed to other villagers. You would never know if the person you were fishing with at the time you caught and killed turtles or your neighbor (who could smell turtle cooking) was the enforcer who would inform the chief of your misdeed. Yet another effective means of managing poaching levels of green turtles within the community.

In addition to conservation and enforcement measures in place for green turtles, several measures were used to help hawksbill turtles. Although anyone could kill hawksbill turtles (it was not taboo as the case with green turtles) it seems that because 1) people of Ulithi did not eat hawksbill meat because it smelled unpleasant and 2) they only killed them when they came across them, it appears people of Ulithi did not actively hunt and seek them out like they would green turtles. This is most likely due to the fact that hawksbill turtles are endangered and are not observed as often as green turtles; there was obviously some measure of traditional conservation practices in place for this species simply because they were not actively sought out. Also, because of existing cultural traditions of hawksbill turtles and value that was attached to articles made from their shell for community members, they were not made into souvenir trinkets such as earrings or stuffed wall hangings and sold to tourists as they are in other regions of Micronesia. As Jessy so eloquently put it: "We don't give those to tourists, cause it don't belong to the tourists."



Jessy Hapdei hand-capturing a juvenile green turtle in CNMI, USA waters during late 2010. Photo credit: K. Hiyashi.

**OBJECTIVE 4:** To discern implications of customary methods and traditions for modern sea turtle conservation and management.

Today, Jessy uses his traditional knowledge as a contractor for the CNMI DLNR sea turtle program. Since 2006 he has captured and tagged 190 green and hawksbill turtles in the CNMI region. He utilizes indigenous hand-capture methods learned in Ulithi, Yap for his work with the CNMI DLNR.

Whereas regions such as Ulithi, Yap continue to use sea turtles for subsistence and cultural purposes, because the Northern Mariana Islands is a Commonwealth of the United States, it is illegal for residents to capture and consume sea turtles under the Endangered Species Act. In 1996 an indigenous group in the Northern Marianas formally requested a limited take of turtles "for cultural and ceremonial purposes" before the Western Pacific Regional Fishery Management Council (Elameto 1996). Since then the National Oceanic & Atmospheric Administration has worked towards providing grant funding and training to the CNMI DLNR sea turtle program to perform baseline near shore and nesting beach surveys that would estimate population size, size classes represented, species composition, and genetic origins of CNMI turtle aggregations.

Recent estimates suggest a total nesting population in the CNMI of 15-20 adult green turtles and less than five adults observed during near shore surveys. On average, 20% of nesting turtles are poached every year and 80% of all stranding recoveries are poached juveniles taken from near shore waters in Saipan (CNMI STP Annual reports 2006-2010). The Pacific Green Turtle Recovery Plan (1998) states that a recovered stock must average 5,000 females nesting annually over six years.

Further research and recovery efforts must be accomplished to provide NMFS data for a cultural take permit decision in the CNMI. In the meantime, managers can stress importance of not only the plight of turtles but also the impending loss of indigenous knowledge. Sea turtles have been around for 100 million years, regional indigenous knowledge for at least 8,000 years; let western science and indigenous knowledge work together to ensure they both stick around for a few more.



Teaching the next generation about sea turtle conservation and indigenous knowledge at an outreach event on Mañagaha Island, Saipan, CNMI.

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